

APPENDIX 10.6
EXISTING STATE PERMITS

APPENDIX 10.6.1

CONDITIONS OF CERTIFICATION (PA-92-32N)

**STATE OF FLORIDA
DEPARTMENT
OF
ENVIRONMENTAL PROTECTION**



Conditions of Certification

Tampa Electric Company
Polk Power Station
IGCC Unit 1
SCGT Units 2, 3, 4, and 5

PA 92-32N
September 5, 2012

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SECTION A: GENERAL CONDITIONS

SECTION A: GENERAL CONDITIONS

I. SCOPE

Pursuant to the Florida Electrical Power Plant Siting Act (PPSA), Sections 403.501-518, Florida Statutes (F.S.); this certification is issued to Tampa Electric Company (TEC) as owner/operator and Licensee of Polk Power Station – Units 1-5. Subject to the requirements contained in these Conditions of Certification (Conditions), TEC will operate an 1150 megawatt (MW) ultimate site capacity. There currently are 5 Units (Unit 1 - 260 MW combined cycle combustion turbine; four 165 MW simple cycle gas turbines - Unit Nos. 2 -5). These units are located in Polk County, Florida. The UTM coordinates are: Zone 17,402.45 km East and 3067.35 km North. The Department does not intend, solely by the incorporation of these General Conditions, to require the retrofitting of existing certified facilities.

II. DEFINITIONS

The meaning of terms used herein shall be governed by the applicable definitions contained in Chapters 253, 373, 372, and 403, F.S., and any regulation adopted pursuant thereto and the statutes and regulations of any agency and the definitions set forth below. In the event of any dispute over the meaning of a term used in these Conditions which is not defined in such statutes or regulations, such dispute shall be resolved by reference to the most relevant definitions contained in any other state or federal statute or regulation or, in the alternative by the use of the commonly accepted meaning as determined by the Department. As used herein, the following shall apply:

A. “Application” means the Site Certification Application (SCA) for the Polk Power Station Project, as supplemented.

B. “Associated Facilities” is defined by Section 403.503(7), F.S.

C. “Certified Area” means the area within the site in which the certified facilities are located. For linear facilities this term shall mean the area encompassed by the boundaries of the certified easements and/or ROWs.

D. “Certified Facility” or “Certified Facilities” means the certified electrical power generation facilities and all on- or off-site associated structures including but not limited to: steam generating units, transformers, substations, fuel and water storage tanks, air and water pollution control equipment, storm water control ponds and facilities, cooling towers, reclaimed water pipelines and pump stations and related structures. This term shall also mean linear and associated facilities, including but not limited to: reclaimed water pipelines and pump stations, transmission lines, natural gas pipelines, and compressor stations.

E. “DEP” or “Department” means the Florida Department of Environmental Protection.

F. “DHR” means the Florida Department of State, Division of Historical Resources.

G. “Emergency conditions” or “Emergency reporting” means urgent circumstances involving potential adverse consequences to human life or property as a result of weather conditions or other calamity, and necessitating new or replacement gas pipeline, transmission lines, or access facilities.

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H. “Feasible” or “practicable” means reasonably achievable considering a balance of land use impacts, environmental impacts, engineering constraints, and costs.

I. “FWC” means the Florida Fish and Wildlife Conservation Commission.

J. “ISO” shall mean International Organization for Standardization, ISO 3977-1978 (E) standard conditions for gas turbines = 14.7 psia, 15°C, relative humidity 60 percent.

K. “Licensee” means an applicant that has obtained a certification order for the subject project.

L. “Power plant” shall mean the electric power generating equipment and appurtenances to be constructed on the Polk Power Station site in Polk County, as generally depicted in the Application.

M. “Project” shall mean the TEC Polk Power Station (PPS) and all associated facilities, including: the power plant, coal gasification plant, sulfuric acid plant and related facilities, and the cooling reservoir and related facilities.

N.. “ROW” means the right-of-way to be selected by the Licensee within the certified corridor in accordance with the Conditions of Certification and as defined in section 403.503927), F.S.

O. “SWF WMD” means the Southwest Florida Water Management District, respectively.

III APPLICABLE DEPARTMENT RULES

The construction, operation and maintenance of the Power Plant Station shall be in accordance with all applicable non-procedural provisions of F.S. and Florida Administrative Code (F.A.C.), including, but not limited to, the applicable non-procedural portions of the following regulations, except to the extent a variance, exception, exemption or other relief is granted in the final order of certification or in a subsequent modification to the Conditions, under any federal permit or as otherwise provided under Chapter 403:

Florida Administrative Codes:

18-2 (Management of Uplands Vested in the Board of Trustees)

18-14 (Administrative Fines for Damaging State Lands)

18-20 (Aquatic Preserves)

18-21 (Sovereign Submerged Lands Management)

62-4 (Permits)

62-17 (Electrical Power Plant Siting)

62-25 (Regulation of Stormwater Discharge)

62-40 (Water Resource Implementation Rule)

62-150 (Hazardous Substance Release Notification)

62-160 (Quality Assurance)

62-204 (Air Pollution Control-General Provisions)

62-210 (Stationary Sources-General Requirements)

62-212 (Stationary Sources-Preconstruction Review)

62-213 (Operation Permits for Major Sources of Air Pollution)

62-214 (Requirements for Sources Subject to the Federal Acid Rain Program)

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- 62-296 (Stationary Sources-Emission Standards)
- 62-297 (Stationary Sources-Emission Monitoring)
- 62-301 (Surface Waters of the State)
- 62-302 (Surface Water Quality Standards)
- 62-304 (Total Maximum Daily Loads)
- 62-312 (Dredge and Fill Activities)
- 62-330 (Environmental Resource Permitting)
- 62-340 (Delineation of the Landward Extent of Wetlands and Surface Waters)
- 62-341 (Noticed General Environmental Resource Permits)
- 62-343 (Environmental Resource Permit Procedures)
- 62-345 (Uniform Mitigation Assessment Method)
- 62-520 (Groundwater Classes, Standards and Exemptions)
- 62-528 (Underground Injection Control)
- 62-531 (Water Well Contractor Licensing Requirements)
- 62-532 (Water Well Permitting and Construction Requirements)
- 62-550 (Drinking Water Standards, Monitoring and Reporting)
- 62-555 (Permitting, Construction, Operation, and Maintenance of Public Water Systems)
- 62-560 (Requirements for Public Water Systems That Are Out of Compliance)
- 62-600 (Domestic Wastewater Facilities)
- 62-601 (Domestic Wastewater Treatment Plant Monitoring)
- 62-604 (Collection Systems and Transmission Facilities)
- 62-610 (Reuse of Reclaimed Water and Land Application)
- 62-620 (Wastewater Facility and Activities Permitting)
- 62-621 (Generic Permits)
- 62-650 (Water Quality Based Effluent Limitations)
- 62-660 (Industrial Wastewater Facilities)
- 62-699 (Classification and Staffing of Water or Domestic Wastewater Treatment Plants and Water Distribution Systems)
- 62-701 (Solid Waste Management Facilities)
- 62-710 (Used Oil Management)
- 62-730 (Hazardous Waste)
- 62-737 (Management of Spent Mercury-Containing Lamps and Devices Destined For Recycling)
- 62-740 (Petroleum Contact Water)
- 62-761 (Underground Storage Tank Systems)
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- 62-769 (Florida Petroleum Liability and Restoration Insurance Program)
- 62-770 (Petroleum Contamination Site Clean-Up Criteria)
- 62-780 (Contaminated Site Clean-Up Criteria)
- 62-807 (Natural Gas Transmission Pipeline)
- 62-814 (Electric and Magnetic Fields)
- 64E-6 (Standards for Onsite Sewage Treatment and Disposal Systems)
- 40D-4 (Individual Environmental Resource Permits)
- 40D-8 (Water Levels and Rates of Flow)

SECTION A: GENERAL CONDITIONS

40D-40 (Standard General Environmental Resource Permits)
Basis of Review for ERP Applications

IV. CHANGE IN DISCHARGE

All discharges or emissions authorized herein shall be consistent with the terms and conditions of this certification. The discharge of any regulated pollutant not identified in the application, or more frequent than, or at a level in excess of that authorized herein, shall constitute a violation of the certification. Any anticipated facility expansions beyond the certified initial, nominal, net capacity of 260 MW, production increases, or process modifications which may result in new, different, or increased discharges of pollutants, change in type of fuel as described in XIII.D., or expansion in steam generation capacity shall be reported by submission of a supplemental application pursuant to Chapter 403, F.S.

V. DEPARTMENT PERMITS UNDER FEDERAL PROGRAMS

This certification is not a waiver of any other Department approval that may be required under federally delegated or approved programs. The Department may consider a violation of any of these permits as a violation of this license.

A. Air

The provisions of the following paragraphs shall be conditions of this certification. The Licensee shall comply with the substantive provisions and limitations set forth in Air Construction Permits PSD-FL-194, PSD-FL-263, PSD-FL-363 (1050233-018-AC), 1050233-017-AC and Title V Air Operation Permit Number 1050233-026-AV as part of these Conditions, and as those provisions may be modified, amended, or renewed in the future by the Department. Such provisions shall be fully enforceable as conditions of this certification. Any violation of such provisions shall be a violation of these Conditions.

1. Air Construction Permit(s)

Air Construction Permits PSD-FL-194, PSD-FL-263, PSD-FL-363 (1050233-018-AC), and 1050233-017-AC are incorporated by reference herein as part of these Conditions and attached as Appendix I.

[Chapter 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297, F.A.C.]

2. Title V Permit

Title V Air Operation Permit 1050233-026-AV is incorporated by reference herein as part of these Conditions and attached as Appendix II.

[Chapters 62-204, 62-210, 62-213, 62-214, 62-296, and 62-297, F.A.C.]

B. Water

1. NPDES Industrial Wastewater Discharge

Any discharges during operation shall be in accordance with all applicable provisions of NPDES permit No. FL0043869 (attached as Appendix III) as well as any subsequent modifications, amendments and/or renewals.

[Chapter 62-620, F.A.C.]

2. Underground Injection Control

SECTION A: GENERAL CONDITIONS

Any construction or operation of injection wells shall be in accordance with all applicable provisions of UIC permit No. 0281232 (attached as Appendix IV) as well as any subsequent modifications, amendments and/or renewals.

[Chapter 62-528, F.A.C.]

3. NPDES Generic Permit for Stormwater Discharge from Large and Small Construction Activities (CGP)

Any storm water discharges associated with construction activities on the site shall be in accordance with all applicable provisions of Chapter 62-621, F.A.C. Prior to commencing construction activities on the site that:

- contribute to stormwater discharges to surface waters of the State or into a municipal separate storm sewer system (MS4); and
- disturb one or more acres of land (less than one acre if the activity is part of a larger common plan of development);

a Generic Permit for Stormwater Discharge from Large and Small Construction Activities (CGP) must be obtained as applicable.

[Section 403.0885, F.S.; Rule 62-621.300, F.A.C.]

4. NPDES Multi-Sector Generic Permit for Stormwater Discharge Associated with Industrial Activity.

Any storm water discharges associated with industrial activity shall be in accordance with all applicable provisions of Chapter 62-621, F.A.C. For industrial activities at the site that result in a discharge of stormwater to surface waters of the State or into a municipal separate storm sewer system (MS4), and fall under any one of the 11 categories of industrial activities identified in 40 CFR 122.26(b)(14), a Multi-Sector Generic Permit for Stormwater Discharge Associated with Industrial Activity (MSGP) shall be obtained as applicable.

[Section 403.0885, F.S.; Rule 62-621.300, F.A.C.]

5. NPDES Generic Permit for Discharge of Produced Ground Water from any Non-Contaminated Site Activity

Prior to discharge of produced ground water from any non-contaminated site activity which discharges by a point source to surface waters of the State, as defined in Chapter 62-620, F.A.C., the Licensee must first obtain coverage under the Generic Permit for Discharge of Produced Ground Water From any Non-Contaminated Site Activity. Similarly, if the activity involves a point source discharge of ground water from a petroleum contaminated site, the Licensee must obtain coverage under the Generic Permit for discharge from petroleum contaminated sites. Before discharge of ground water can occur from such sites, analytical tests on samples of the proposed untreated discharge water shall be performed as required by Rule 62-621.300, F.A.C., to determine if the activity can be covered by either permit.

If the activity cannot be covered by either generic permit, the Licensee shall apply for an individual wastewater permit at least ninety (90) days prior to the date discharge to surface waters of the State is expected. No discharge to surface water is permissible without an effective permit.

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6. NPDES Generic Permit for Discharges from Concrete Batch Plants

Prior to discharges from concrete batch plants which meet the criteria specified in DEP Document 62-621.300(3)(a), (excluding Part III when using any new batch plants and excluding Part II when using any existing batch plants) the Licensee must first obtain coverage under the Generic Permit for Discharges from Concrete Batch Plants. This generic permit also constitutes authorization to construct and operate closed loop recycling vehicle/equipment washing facilities at concrete batch plants. New and existing concrete batch plants which do not qualify for coverage or do not choose to be covered under this generic permit shall apply for an individual wastewater permit on the appropriate form listed in Rule 62-620.910, F.A.C. and in the manner established in Chapter 62-620, F.A.C. DEP Document number 62-621.300(3)(a) contains specific design and operating requirements for discharges from wastewater and stormwater management systems at concrete batch plants.

[Section 403.0885, F.S.; Rule 62-621.300, F.A.C.]

VI. FACILITIES OPERATION

A. The Licensee shall properly operate and maintain in good working order and operate as efficiently as possible all treatment or control facilities or systems installed or used by the Licensee to achieve compliance with the terms and conditions of this License as required by the final order of certification, these Conditions, or a post-certification amendment or modification. In the event of a malfunction of a electric generating unit's pollution control system, that unit's load shall be shifted to any or all of the remaining units having a properly functioning pollution control system, and the malfunctioning unit shall be promptly shut down.

B.. In the event of a prolonged [thirty (30) days or more] equipment malfunction or shutdown of air pollution control equipment, operation may be allowed to resume and continue to take place under an appropriate Department order, provided that the Licensee demonstrates that such operation will be in compliance with all applicable ambient air quality standards and PSD increments, solid waste rules, domestic waste rules and industrial waste rules. During such malfunction or shutdown, the operation of the Polk Power Station shall comply with all other requirements of this certification and all applicable state and federal emission standards not affected by the malfunction or shutdown which is the subject of the Department's order. Operational stoppages exceeding two hours for air pollution control systems or four hours for other systems or operational malfunctions are to be reported as specified in Condition VII – Notification.- Identified operational malfunctions which do not stop operation but do compromise the integrity of the operation shall be reported to the Southwest District office as specified in Condition VII – Notification.

C. TEC shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the TEC to achieve compliance with the conditions of this certification, and are required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the approval and when required by Department rules.

[subsection 62-4.160(6), F.A.C.]

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VII. NOTIFICATION

A. If, for any reason, the Licensee does not comply with or will be unable to comply with any condition or limitation specified in this certification, the Licensee shall notify the Southwest District office of the DEP by telephone within a working day that said noncompliance occurs and shall confirm this in writing at 13051 North Telecom Parkway, Temple Terrace, FL 33637 within seventy-two (72) hours of becoming aware of such conditions, and shall supply the following information:

1. A description of and cause of noncompliance; and
2. The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.
3. The Licensee shall report all critical (having potential to significantly pollute surface or ground waters) spills of liquid or liquid-solid materials not confined to a building or similar containment structure to the Department by phone immediately after the discovery and submit a written report within forty-eight (48) hours, excluding weekends, from the original notification. The written report shall include, but not be limited to, a detailed description of how the spill occurred, the name and chemical make-up (include any MSDS sheets) of the substance, the amount spilled, the time and date of the spill, the name and title of the person who first reported the spill, the areal size of the spill and surface types (impervious, ground, water bodies, etc.) it impacted, the cleanup procedures taken and status of completion, and include a map or aerial photograph showing the extent and paths of the material flow. Any deviation from this requirement must receive prior approval from the Department.

B. The Licensee shall promptly notify the SCO in writing of any previously submitted information concerning the Certified Facility that is later discovered to be inaccurate.

[subsection 62-4.160(15), F.A.C.]

C. Within 60 days after certification of an associated linear facility the Licensee shall file a notice of the certified route with the Department and the clerk of the circuit court for each county through which the corridor will pass.

The notice shall consist of maps or aerial photographs in the scale of 1:24,000 which clearly show the location of the certified route and shall state whether the certification of the corridor will result in the acquisition of rights-of-way within the corridor. The Licensee shall certify to the Department and clerk that all lands required for the transmission line rights-of-way within the corridor have been acquired within such county within 30 days after completion of the right-of-way acquisition.

[Section 403.5112, F.S.]

VIII. SAFETY

A. The overall design, layout, and operation of the facilities shall be such as to minimize hazards to humans and the environment. Security control measures shall be utilized to prevent exposure of the public to hazardous conditions. The Federal Occupational Safety and Health Standards will be complied with during construction and operation.

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B. The Licensee shall not discharge to surface waters wastes which are acutely toxic, or present in concentrations which are carcinogenic, mutagenic, or teratogenic to human beings or to significant locally occurring wildlife or aquatic species. The Licensee shall not discharge to ground waters wastes in concentrations which, alone or in combination with other substances, or components of discharges (whether thermal or non-thermal) are carcinogenic, mutagenic, teratogenic, or toxic to human beings (unless specific criteria are established for such components in Section 62-520.420, F.A.C.) or are acutely toxic to indigenous species of significance to the aquatic community within surface waters affected by the ground water at the point of contact with surface waters.

IX. ENFORCEMENT

The Department may take any and all lawful actions as it deems appropriate to enforce any condition of this certification.

X. DESIGN AND PERFORMANCE CRITERIA

The power plant may be operated at up to 115 percent of the maximum electrical output at ISO conditions projected from design information without the need for modifying these conditions. Treatment or control facilities or systems installed or used to achieve compliance with the terms and conditions of this certification are not to be bypassed without prior DEP approval. Moreover, the Licensee shall take all reasonable steps to minimize any adverse impacts resulting from noncompliance with any limitation specified in this certification, including, but not limited to, such accelerated or additional monitoring as necessary to determine the nature and impact of the non-complying event.

XI. CERTIFICATION

A. The terms, conditions, requirements, limitations and restrictions set forth in these conditions of certification are binding and enforceable pursuant to Sections 403.141, 403.161, 403.514, 403.727, and 403.859 through 403.861, F.S. TEC is placed on notice that the Department will review this approval periodically and may initiate enforcement action for any violation of these conditions.

B. This approval is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this approval may constitute grounds for revocation and enforcement action by the Department.

C. As provided in Subsections 403.087(6), 403.511, and 403.722(5), F.S., the issuance of this approval does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations. This approval is not a waiver of or approval of any other Department approval that may be required for other aspects of the total project under federally delegated programs which are not addressed in this certification.

D. This certification does not relieve the TEC from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this approved source, or from penalties therefore; nor does it allow the TEC to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

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E. In accepting this certification, TEC understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this approved source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the approved source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.111 and 403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

F. This certification is transferable only upon Department approval in accordance with Section 403.516, F.S., Rules 62-4.120 and 62-730.300, F.A.C., as applicable. TEC shall be liable for any noncompliance of the approved activity until the transfer is approved by the Department.

G. These conditions of certification or a copy thereof shall be kept at the work site of the approved activity.

H. TEC shall comply with the following:

1. Upon request, TEC shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

2. TEC shall hold at the facility or other location designated by this approval records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the approval, copies of all reports required by this approval, and records of all data used to complete the application for this approval. These materials shall be retained at least three (3) years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

3. Records of monitoring information shall include:

- (a) the date, exact place, and time of sampling or measurements;
- (b) the person responsible for performing the sampling or measurements;
- (c) the dates analyses were performed;
- (d) the person responsible for performing the analyses;
- (e) the analytical techniques or methods used;
- (f) the results of such analyses.

I. When requested by the Department, TEC shall within a reasonable time furnish any information required by law which is needed to determine compliance with the certification. If TEC becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

XII. LABORATORIES AND QUALITY ASSURANCE

Chemical, physical, biological, microbiological and toxicological data collected as a requirement of these Conditions must be reliable, and collected and analyzed by scientifically

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sound procedures. Unless otherwise specified in these Conditions, the Licensee shall adhere to the minimum field and laboratory quality assurance, methodological and reporting requirements of the Department as set forth in Chapter 62-160, F.A.C. Standard Operating Procedures can be downloaded from the following website: <http://www.dep.state.fl.us/labs/qa/sops.htm>.

[Rule 62-160, F.A.C.]

XIII. PROCEDURES FOR POST-CERTIFICATION SUBMITTALS

A. Purpose of Submittals

Conditions which provide for the post-certification submittal of information to DEP or other agencies by the Licensee are for the purpose of facilitating the agencies' monitoring of the effects arising from the location of the transmission line ROW and the construction and maintenance of the transmission line and the plant facilities. This monitoring is for DEP to assure, in consultation with other agencies with applicable regulatory jurisdiction, continued compliance with these Conditions, without further agency action.

B. Filings

All post-certification submittals of information by TEC are to be filed with DEP. Copies of each submittal shall be simultaneously submitted to any other agency indicated in the specific conditions requiring the post-certification submittals.

[Section 403.5113, F.S., subsection 62-17.191(3), F.A.C.]

C. Completeness

The DEP shall promptly review each post-certification submittal for completeness. This review shall include consultation with the other agencies receiving the post-certification submittal. For the purposes of this condition, completeness shall mean that the information submitted is both complete and sufficient. If found to be incomplete TEC shall be so notified. Failure to issue such a notice within forty-five (45) days after filing of the submittal shall constitute a finding of completeness.

D. Interagency Meetings

Within sixty (60) days of the filing of a complete post-certification submittal, DEP may conduct an interagency meeting with other agencies which received copies of the submittal. The purpose of such an interagency meeting shall be for the agencies with regulatory jurisdiction over the matters addressed in the post-certification submittal to discuss whether reasonable assurance of compliance with the conditions of certification has been provided. Failure of any agency to attend an interagency meeting shall not be grounds for DEP to withhold a determination of compliance with these conditions nor to delay the time frames for review established by these conditions.

E. Determination of Compliance

Within ninety (90) days of the filing of a complete post-certification submittal, DEP shall give written notification to TEC and the agencies to which the post-certification information was submitted of its determination whether there is reasonable assurance of compliance with the conditions of certification. If it is determined that reasonable assurance has not been provided, TEC shall be notified with particularity and possible corrective measures

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suggested. Failure to notify TEC in writing within ninety (90) days of receipt of a complete post-certification submittal shall constitute a compliance determination.

F. Commencement of Construction

If DEP does not object within the time period specified in paragraph E. above, TEC may begin construction pursuant to the terms of these Conditions and the subsequently submitted construction details.

G. Revisions to Design Previously Reviewed for Compliance

If revisions to site-specific designs occur after submittal, the Licensee shall submit revised plans prior to construction for review.

H. Variation to Submittal Requirements

DEP, in consultation with the appropriate agencies that have regulatory authority over a matter to be addressed in a post-certification submittal, and Licensee may jointly agree to vary any of the post-certification submittal requirements, provided the information submitted is sufficient to provide reasonable assurances of compliance with these Conditions.

[Sections 120.569, 373.413, 373.416, 403.511, F.S.; Rules 62-17.191 and 62-17.205, F.A.C.]

XIV. AGENCY ADDRESSES FOR POST-CERTIFICATION SUBMITTALS AND NOTICES

Where a condition requires post-certification submittals and/or notices to be sent to a specific agency, the following agency addresses shall be used unless the Conditions specify otherwise or unless the Licensee and the Department are notified in writing of an agency's change in address for such submittals and notices:

Florida Department of Environmental Protection
Siting Coordination Office, MS 48
3900 Commonwealth Blvd.
Tallahassee, FL 32399-3900

Florida Department of Environmental Protection
Southwest District Office
13051 North Telecom Parkway
Temple Terrace, FL 33637

Florida Department of Economic Opportunity (Formerly DCA)
Office of the Secretary
2555 Shumard Oak Blvd.
Tallahassee, FL 32399-2100

Florida Fish & Wildlife Conservation Commission
Office of Policy and Stakeholder Coordination
620 South Meridian Street
Tallahassee, FL 32399-1600

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Florida Department of Transportation
District Administration
605 Suwannee Street
Tallahassee, FL 32399-0450

Florida Department of Agriculture and Consumer Services
Division of Forestry
3125 Conner Boulevard
Tallahassee, FL 32399-1650

Southwest Florida Water Management District
Office of General Counsel
2379 Broad Street
Brooksville, Florida 34609-6899

Florida Department of State
Division of Historical Resources
500 S. Bronough Street
Tallahassee, FL 32399-0250

Polk County
Office of General Council
POB 9000
Bartow, FL 33831-9000

[Section 403.511, F.S.]

XV. POST-CERTIFICATION SUBMITTAL REQUIREMENTS SUMMARY

Within 90 days after certification, and within 90 days after any subsequent modification or certification, the Licensee shall provide the Department a complete summary of those post-certification submittals that are identified in these Conditions where due-dates for the information required of the Licensee are identified. A summary shall be provided as a separate document for each transmission line, if any. Such submittals shall include, but are not limited to, monitoring reports, management plans, and wildlife surveys. The summary shall be provided to the SCO, in a sortable spreadsheet, via email, in the format identified below or equivalent. For subsequent modifications and certifications, a Post-Certification Submittal Requirements Summary shall be required for only those resulting in new or altered post-certification requirements.

Condition Number	Requirement and Timeframe	Due Date	Name of Agency or Agency Subunit to whom the submittal is required to be provided

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[Section 403.5113, F.S.; Subsection 62-17.191(3), F.A.C.]

XVI. POST CERTIFICATION AMENDMENTS

If, subsequent to certification, the Licensee proposes any material change to the SCA and revisions or amendments thereto, as certified, the Licensee shall submit a written request for amendment and a description of the proposed change to the SCA to the Department. Within 30 days after the receipt of a complete request for an amendment, the Department shall determine whether the proposed change to the application requires a modification to the Conditions.

A. If the Department concludes that the change would not require a modification to the Conditions, the Department shall provide written notification of the approval of the proposed amendment to the Licensee, all agencies, and all other parties to the Certification.

B. If the Department concludes that the change would require a modification to the Conditions, the Department shall provide written notification to the Licensee that the proposed change to the SCA requires a request for modification pursuant to Sections 403.516, F.S.

[Section 403.5113, F.S.]

XVII. ADVERSE IMPACT

The Licensee shall take all reasonable steps to minimize any adverse impact resulting from noncompliance with any limitation specified in this certification, including such accelerated or additional monitoring as necessary to determine the nature and impact of the non-complying discharge.

XVIII. RIGHT OF ENTRY

The Licensee shall allow during normal operational or business hours the Secretary of the Florida Department of Environmental Protection and/or authorized representatives, including representatives of the SWFWMD and Polk County upon the presentation of credentials:

A. To enter upon the Licensee's premises where an effluent source is located or in which records are required to be kept under the terms and conditions of this certification;

B. To have access during normal business hours (Monday-Friday, 7:00 a.m. to 3:30 p.m.) to any records required to be kept under the conditions of this certification for examination and copying;

C. To inspect and test any monitoring equipment or monitoring method required in this certification and to sample any discharge or pollutants, or monitor any substances or parameters at any location reasonably necessary to assure compliance with this certification or Department rules; and,

D. To assess any damage to the environment or violation of ambient standards.

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E. A reasonable time may depend on the nature of the concern being investigated.

XIX. REVOCATION OR SUSPENSION

This certification may be suspended or revoked for violations of any of its conditions pursuant to Sections 403.512, F.S.

XX. CIVIL AND CRIMINAL LIABILITY

This certification does not relieve the Licensee from civil or criminal penalties for noncompliance with any conditions of this certification, applicable rules or regulations of the Department or any other state statutes or regulations which may apply.

XXI. USE OF STATE LANDS

A. The issuance of this license conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.

B. If any portion of the Certified Facility is located on sovereign submerged lands, state-owned uplands, or within an aquatic preserve, then the Certified Facility must comply with the applicable portions of Chapters 18-2, 18-20, and 18-21, F.A.C., and Chapters 253 and 258, F.S. If any portion of the Certified Facility is located on sovereign submerged lands, the Licensee must submit section G of the Joint Application for Environmental Resource Permits to the Department prior to construction. If any portion of the Certified Facility is located on state-owned uplands, the Licensee must submit an Upland Easement Application to the Department prior to construction.

C. If a portion of the Certified Facility is located on sovereign submerged lands or state-owned uplands owned by the Board of Trustees of the Internal Improvement Trust Fund, pursuant to Article X, Section 11 of the Florida Constitution, then the proposed activity on such lands requires a proprietary authorization. Under such circumstances, the proposed activity is not exempt from the need to obtain a proprietary authorization. The Department has the responsibility to review and take action on requests for proprietary authorization in accordance with Rules 18-2.018 or 18-21.0051, F.A.C.

D. The Licensee is hereby advised that Florida law states: “No person shall commence any excavation, construction, or other activity involving the use of sovereign or other state lands of the state, title to which is vested in the Board of Trustees of the Internal Improvement Trust Fund or the Department of Environmental Protection under Chapter 253, F.S., until such person has received from the Board of Trustees of the Internal Improvement Trust Fund the required lease, license, easement, or other form of consent authorizing the proposed use.” Pursuant to Chapter 18-14, F.A.C., if such work is done without consent, or if a person otherwise damages state land or products of state land, the Board of Trustees may levy administrative fines of up to \$10,000 per offense.

E. The terms, conditions, and provisions of any required lease or easement issued by the State shall be met. Any construction activity associated with the Certified Facility shall not commence on sovereign submerged lands or state owned uplands, title to which is held by

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the Board of Trustees of the Internal Improvement Trust Fund, until all required lease or easement documents have been executed.

[Chapters 253 and 258, and Sections 403.511, 403.531, and 403.9416, F.S.; Chapter 3.1.1. of the B.O.R.; Chapters 18-2, 18-14, 18-21, 62-340, and subsections 62-343.900(1) and 62-4.160(4), F.A.C.; Upland Easement Application and Section G of the Environmental Resource Permit Application Form.]

XXII. SEVERABILITY

The provisions of this certification are severable, and if any provision of this certification or the application of any provision of this certification to any circumstance is held invalid, the remainder of the certification or the application of such provision to other circumstances shall not be affected thereby.

XXIII. REVIEW OF SITE CERTIFICATION

The certification shall be final unless revised, revoked, or suspended pursuant to law. At least every five (5) years from the date of issuance of certification the Department may review these conditions of certification and propose any needed changes.

XXIV. MODIFICATION OF CONDITIONS

A. Pursuant to Subsection 403.516(1), F.S., the Board hereby delegates the authority to the Secretary to modify any condition of this certification.

B. For modifications in relation to federally delegated or approved permit programs, if no written objection is raised following notice to the parties and the public pursuant to Section 403.516(1)(b), F.S., the department shall modify a certification order and conditions of certification to conform to any subsequent department-issued amendments, modifications or renewals of any separately-issued prevention of significant deterioration (PSD) permit, Title V Air Operation permit, National Pollutant Discharges Elimination System (NPDES) permit, or any other permit for the certified electrical power plant issued by the department under a federally delegated or approved permit program so long as no state rule exists which conflicts or is more stringent than the provisions of the federal permits.

XXV. SCREENING

The Licensee shall provide screening of the site to the extent feasible through the use of aesthetically acceptable structures, vegetated earthen walls and/or existing or planted vegetation.

XXVI. TOXIC, DELETERIOUS OR HAZARDOUS MATERIALS

A. Spills

The spill of any toxic, deleterious, or hazardous materials shall be reported in the manner specified by Condition VII. Notification.

B. Handling and Testing of Potentially Hazardous Material

Within one hundred twenty (120) days prior to commercial operation, TEC shall provide a plan for handling and disposing of hazardous catalysts to the DEP Southwest District office.

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XXVII. SOLID WASTE STORAGE AND DISPOSAL

A. *Solid Waste General*

1. The solid waste disposal areas shall be designed, constructed, operated, maintained, closed and monitored in accordance with acceptable landfill practices described in Chapter 62-701, F.A.C.
2. No solid waste disposal areas shall be constructed until detailed plans and drawings as required by Chapter 62-701, F.A.C., have been submitted to and approved by the Solid Waste Section of the Southwest District (SWSSWD) of the DEP.
3. Each solid waste disposal unit shall meet the general criteria for landfills as stated in Rule 62-701.340, F.A.C.
4. Any solid waste produced by the operation of the facility shall be disposed of in a permitted disposal facility. By-products that are sold for reuse are not considered solid waste.

B. *Solid Waste Site Specific Standards*

1. The temporary storage area for the brine solids shall have a leachate control system to prevent a discharge of leachate and mixing of leachate with storm water.
2. Provisions for storing slag for more than one year shall be addressed in the Solid Waste Operations Plan to be submitted to the SWSSWD of the DEP prior to operation of the slag storage unit.
3. The Licensee shall provide reasonable assurance that the liners for all solid waste storage areas shall be constructed, operated and maintained in accordance with acceptable landfill liner practices. Acceptable practices are detailed in Rule 62-701.400, F.A.C., (new January 6, 1993). The characteristics of the soils underlying the liner shall also be determined to prevent settlement or other problems associated with use of a geomembrane liner. The results of all soils and materials testing shall be submitted to the Solid Waste Section of the Department's Southwest District Office (SWSSWD) with liner specifications for approval prior to construction.
4. The Licensee shall provide leachate collection and disposal plans that meet the criteria of Rule 62-701.400, F.A.C. Leachate sampling shall be addressed in the facility ground water monitoring plan as a post-certification submittal. Parameters detected in the leachate at levels of concern may be included in future ground water sampling analyses. The Licensee is responsible for the storm water control in the solid waste retention areas. Storm water or other surface water which comes into contact with the solid waste or mixes with leachate shall be considered leachate.
5. The Licensee shall provide backup provisions for leachate management in the event that the industrial wastewater treatment plant is inoperable. This shall be submitted to the SWSSWD of the DEP prior to operation of any solid waste disposal unit.
6. The zone of discharge for each SWDA shall be 100 feet from the edge of the SWDA, or the property boundary, whichever is less. Ground water standards for G-II ground waters shall be maintained at the boundary of the zone of discharge.

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7. The Licensee shall provide reasonable assurance that the solid waste disposal area liner system shall be equivalent to a composite or double liner system.

8. The Licensee shall submit to the SWSSWD of the DEP a quality assurance plan for the liner systems equivalent to that for a composite or double liner system for approval by the Department's SWSSWD prior to construction. Soil liner construction quality assurance shall include a quality control plan specifying performance criteria for the soil liner, testing procedures and sampling frequencies.

9. The Licensee shall submit to the SWSSWD of the DEP a comprehensive operation plan for the facility that provides written, detailed instructions for the daily operation of the solid waste disposal areas. The plan shall include the items listed in Rule 62-701.500, F.A.C. The plan shall be kept at the facility and shall be accessible to the operators. The plan shall be revised if operational procedures change. A schedule for routine maintenance of the leachate collection and removal system shall be established to ensure operation of the system. The maintenance schedule shall be a part of the operational procedures for the plan. The initial operation plan shall include the first solid waste disposal area and shall be submitted for approval to the SWSSWD of the DEP prior to operation of the solid waste disposal area.

10. The Licensee shall hold the operator responsible for leachate level monitoring, sampling, analysis of the leachate, and for providing copies of the leachate analysis to the Department's SWSSWD. The operator shall have a prepared contingency plan to handle leachate collection, removal, and treatment problems such as interruptions of discharges to a treatment plant. Quantities of leachate collected by the leachate collection and removal system shall be recorded in gallons per day before on-site treatment or transport off-site. A rain gauge shall be installed, operated, and maintained to record precipitation at the facility. Precipitation records shall be maintained and used to compare with leachate generation rates.

11. Hazardous waste or any hazardous substance shall not be accepted for disposal at this site. Hazardous waste is a solid waste identified by the Department as a hazardous waste in Chapter 62-730, F.A.C. Hazardous substances are those defined in Section 403.703, F.S., or in any other applicable state or federal law or administrative rule.

12. The Licensee shall maintain a program which prohibits the disposal of bulk industrial wastes which operation personnel reasonably believe to either be or contain hazardous waste, without first obtaining a chemical analysis of the material showing the waste to be non hazardous. The chemical analysis of any such material, along with the date of disposal, shall be kept on file at the facility.

13. A trained supervisor or foreman shall be responsible for maintaining the solid waste disposal areas in an orderly, safe, and sanitary manner. Sufficient personnel shall be employed for adequate operation. In the event of damage to any portion of the solid waste disposal area or failure of any portion of the related systems, the Department's SWSSWD shall receive notification in accordance with Section A, Condition VII. Notification.

14. The facility ground water monitoring plan, to be submitted as a post certification report, shall include monitoring of the solid waste disposal areas. This plan shall include, at a minimum, the equivalent to the requirements of Rule 62-701.510, F.A.C., for the solid waste disposal areas. The facility ground water monitoring plan must be approved by the

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Department prior to facility operation and will be incorporated into these Conditions of Certification as Attachment C (Solid Waste Groundwater portion will be Attachment C-2).

15. All engineering plans, reports, and related information shall be provided by the engineer of record with professional certification and shall be approved by the Department's SWSSWD prior to construction. A construction certification report signed and sealed by a professional engineer, and record drawings showing all modifications to construction plans, shall be submitted for approval to the SWSSWD of the DEP prior to operation of each solid waste disposal area.

16. Prior to any construction of each solid waste disposal area, the engineer shall define the engineering properties of the site that are necessary for the design, construction, and support for the disposal area.

17. The closure of each solid waste disposal area shall be equivalent to lined landfill closures, and shall have a barrier layer. All engineering plans, reports, and related information shall be provided by the engineer of record with professional certification and shall be approved by the Department's SWSSWD prior to closure.

18. Financial assurance for the solid waste disposal areas shall be provided in accordance with Rule 62-701.630, F.A.C., prior to operation of each solid waste disposal area. All cost estimates for closure and long-term care shall be adjusted and submitted annually to: SWSSWD of the DEP. Proof that the financial assurance has been funded adequately shall be submitted annually to the SWSSWD and to: Financial Coordinator, Solid Waste Section, Department of Environmental Protection, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.

19. If ground water monitoring reveals chemical parameters at concentrations significantly above background concentrations due to leachate, the Licensee shall submit a contamination assessment plan to the Department's Solid Waste Section within one hundred fifty (150) days of knowledge of exceedance. The contamination assessment plan shall provide a detailed plan for evaluating the vertical and horizontal extent of affected soils and ground water.

C. Processing Additional Information

The Licensee shall send all appropriate submittals to the SWSSWD of the DEP to the following address:

Florida Department of Environmental Protection
Solid Waste Section
13051 North Telecom Parkway
Temple Terrace, FL 33637

With electronic copies submitted to the Siting Coordination Office at SCO@dep.state.fl.us

XXVIII. ENVIRONMENTAL RESOURCES

A. General

1. Submittals for Construction Activities

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a. Prior to the commencement of construction of new facilities and/or associated facilities the Licensee shall provide to the appropriate DEP District's Environmental Resource Permitting Section(s) for review, all information necessary for a complete *Joint Application for Environmental Resource Permit* (ERP), DEP Forms 62-343.900(1), and 62-312.900(1), as applicable.

These forms may be submitted; a) concurrently with a SCA, an amendment request, or a petition for modification; or b) as a post-certification submittal following approval of a project through certification, an amendment, or a modification. Such ERP applications, once received, shall be reviewed in accordance with the non-procedural standards and criteria for issuance of an ERP, including all the provisions related to reduction and elimination of impacts, conditions for issuance, additional conditions for issuance, and mitigation contained in Chapters 62-330, 62-341, 62-343, and 62-346, F.A.C., as applicable unless otherwise stated in these Conditions.

Those forms submitted as part of a site certification, an amendment, or modification, shall be processed concurrently with, and under the respective certification, amendment, or modification procedures. Those forms submitted as a post-certification submittal (after project approval and prior to construction) shall be processed in accordance with Section A. Condition XXII. Procedures for Post-Certification Submittals.

No construction shall commence until the appropriate notification from the Department has been received, or in the case of post-certification submittals the time period for notification by the Department has expired.

b. The Licensee shall submit a survey of wetland and surface water areas as delineated in accordance with Chapter 62-340, F.A.C., and verified by appropriate agency staff for Department approval.

[Chapter 62-340, F.A.C.]

[Section 373.416, F.S.; subsections 62-312, 62-343.070(2) and 62-346.070(2), paragraph 62-343.090(2)(b), and Forms 62-343.900(1) and 62-346.900(1), F.A.C.]

2 Construction, operation and maintenance of the proposed project (including any access roads and structures constructed within wetlands and other surface waters, and/or associated facilities) shall satisfy any applicable non-procedural requirements in the Department rules.

[Section 373.414, F.S.; paragraph 62-17.665(7)(d), F.A.C.]

3. Any delineation of the extent of a wetland or other surface water submitted as part of the DEP ERP Application Form required by Condition XXVIII. A.1.a. above, including plans or other supporting documentation, shall not be considered binding on the Department unless a specific condition of this license or a formal wetlands jurisdictional determination under Section 373.421(2), F.S., provides otherwise.

[Sections 373.421, 403.504, F.S.]

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B. Surface Water Management

1. Surface water management systems will be evaluated under Part IV of Chapter 373, F.A.C. following submittal of Form 62-343.900(1) or 62-346.900(1), as applicable, to the appropriate office of the Department.

2. All construction, operation, and maintenance of the surface water management system(s) for the Certified Facilities shall be as set forth in the plans, specifications and performance criteria contained in the ERP Application form and the surface water management system operation/management plans approved by this license. The Department approved surface water management system operation/management plans shall be incorporated herein as Attachment B, as well as any subsequent alterations, amendments, and/or modifications thereto. Any subsequent alterations, amendments, or modification to the approved surface water management system and/or operation/management plans shall require prior approval from the Department.

3. Immediately prior to, during construction, and for the period of time after construction to allow for stabilization of all disturbed areas, the Licensee shall implement and maintain erosion and sediment control best management practices, such as silt fences, erosion control blankets, mulch, sediment traps, polyacrylamide (PAM), temporary grass seed, permanent sod, and floating turbidity screens to retain sediment on-site and to prevent violations of state water quality standards. These devices shall be installed, used, and maintained at all locations where the possibility of transferring suspended solids into the receiving waterbody exists due to the licensed work, and shall remain in place at all locations until construction is completed and soils are permanently stabilized. All best management practices shall be in accordance with the guidelines and specifications described in *the State of Florida Erosion and Sediment Control Designer and Reviewer Manual* (Florida Department of Transportation and Florida Department of Environmental Protection, 2007) unless a project-specific erosion and sediment control plan is approved as part of this License. If project-specific conditions require additional measures during any phase of construction or operation to prevent erosion or control sediments beyond those specified in the approved erosion and sediment control plan, the Licensee shall implement additional best management practices as necessary, in accordance with the guidelines and specifications in *the State of Florida Erosion and Sediment Control Designer and Reviewer Manual* (Florida Department of Transportation and Florida Department of Environmental Protection by HydroDynamics Incorporated in cooperation with Stormwater Management Academy, June 2007). The Licensee shall correct any erosion or shoaling that causes adverse impacts to the water resources as soon as feasible. Once project construction has been deemed complete, including the re-stabilization of all side slopes, embankments and other disturbed areas, and before conversion from the operation and maintenance phase, all silt screens and fences, temporary baffles, and other materials that are no longer required for erosion and sediment control shall be removed.

4. The Licensee shall complete construction of all aspects of the surface water management system described in the DEP ERP Application Form, as part of a postcertification submittal, amendment, or modification, including water quality treatment features, and discharge control facilities prior to use of the portion of the Certified Facility being served by the surface water management system.

5. At least 48 hours prior to the commencement of construction of any new surface water management system authorized by this license, the Licensee shall submit to the

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Department a written notification of commencement using an “Environmental Resource Permit Construction Commencement Notice” (DEP Form 62-343.900(3) or 62-346.900(3), F.A.C., as applicable), indicating the actual start date and the expected completion date. When the duration of construction will exceed one year, the Licensee shall submit construction status reports to the Department on an annual basis utilizing an "Annual Status Report Form" (DEP Form No. 62-343.900(4), F.A.C.). Status Report Forms shall be submitted the following June of each year.

6 Each phase or independent portion of the approved system must be completed in accordance with the submitted DEP Form prior to the operation of site infrastructure located within the area served by that portion or phase of the system.

7. Within 30 days after completion of construction of any new portions of the surface water management system, the Licensee shall submit to the SCO and DEP District Office a written statement of completion and certification by a registered professional engineer (P.E.), or other appropriate registered professional, as authorized by law, utilizing the required “As-Built Certification by a Registered Professional” (DEP Form 62-343.900(5) or 62-346.900(4), F.A.C., as applicable). Additionally, if deviations from the approved drawings are discovered, the As-Built Certification must be accompanied by a copy of the approved drawings with deviations noted.

8. Any substantial deviation from the approved drawings, exhibits, specifications or COCs, may constitute grounds for revocation or enforcement action by the Department. Examples of substantial deviations may include excavation of ponds, ditches or sump areas deeper than shown on the approved plans.

9. Prior to the operation of any new surface water management system, the Licensee shall submit to the Department a “Request for Transfer of Environmental Resource Permit Construction Phase to Operation Phase” (DEP Form 62-343.900(7), F.A.C.). The operation phase of any new surface water management system approved by the Department shall not become effective until the Licensee has complied with the requirements of the conditions herein, the Department determines the system to be in compliance with the approved plans, and the entity approved by the Department accepts responsibility for operation and maintenance of the system.

[Chapters 62-25, 62-302, 62-330, 62-343 62-346, and Rule 62-4.242, F.A.C.]

C. Wetland and Other Surface Water Impacts

1. All certified facilities shall be constructed in a manner which will avoid or minimize adverse impacts to on-site and/or adjacent wetlands or other surface waters to the extent feasible. Except as otherwise provided in Chapter 62-341, F.A.C., when unavoidable impacts to wetlands will occur, an applicant may propose and the Department shall consider mitigation to offset otherwise unpermissible activities under the Environmental Resource Permit review process pursuant to Condition XXVIII. A.1.a above.

2. Proposed mitigation plans submitted with the DEP ERP Application forms required in Condition XXVIII. A.1.a. above, or submitted and approved as part of an amendment, modification, or certification, and that are deemed acceptable by DEP, shall include applicable construction conditions, success criteria and monitoring plans, and shall be incorporated into these Conditions as Attachment B.

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[Sections 373.413, 373.414, 373.4145, 403.511, and 403.814(6), F.S.; Chapters 62-330, 62-341 62-342, 62-343, 62-345, and 62-346, F.A.C.]

XXIX. CONSTRUCTION

A. Standards and Review of Plans

1. The facility shall be constructed pursuant to the design standards presented in the application and the standards or plans and drawings submitted and signed by an engineer registered in the state of Florida. The Applicant shall present specific facility plans, as developed, for review by the Southwest District office at least ninety (90) days prior to construction of those portions of the facility for which the plans are then being submitted, unless other time limits are specified in the following conditions herein. Specific Southwest District office acceptance of plans will be required based upon a determination of consistency with approved design concepts, regulations and these conditions prior to initiation of construction of the: industrial waste treatment facilities; domestic waste treatment facilities; potable water treatment and supply systems; ground water monitoring systems; off-site water and wastewater pipelines; transmission lines; storm water runoff systems; solid waste disposal areas; and hazardous or toxic handling facilities or areas. Review and approval or disapproval shall be accomplished in accordance with Chapter 120, F.S.

2. The Department must be notified in writing and prior written approval obtained for any changes, modification, or revision to be made to the project during construction. If there are any changes, modification, or revision made to a project approved by the Department without this prior written approval, the project will be considered to have been constructed without departmental approval, the construction will not be cleared for service, and the construction will be considered a violation of the conditions of certification.

3. Ninety (90) days prior to the anticipated date of first operation, TEC shall provide the Department with an itemized list of any changes made to the facility design and operation plans that would affect a change in discharge as referenced in Condition H IV since the time of the approval of these conditions. This preoperational review of the final design and operation shall demonstrate continued compliance with Department rules and standards.

B. Control Measures

1. Storm Water Runoff

To control runoff during construction which may reach and thereby pollute waters of the state, necessary measures shall be utilized to settle, filter, treat or absorb silt-containing or pollutant-laden storm water to ensure against spillage or discharge of excavated material that may cause turbidity in excess of 29 Nephelometric Turbidity Units above background in waters of the state. For the purposes of compliance, background turbidity shall be established by sampling the discharge from the reclaimed pond at the control structure CS-9 within one-half hour of detecting a discharge through OSN's 001 or 002. Control measures may consist of sediment traps, barriers, berms, and vegetation plantings. Exposed or disturbed soil shall be protected and stabilized as soon as possible to minimize silt and sediment-laden runoff. The pH of the runoff shall be kept within the range of 6.0 to 8.5. The Licensee shall comply with Chapter 40D-4, F.A.C. The Licensee shall complete the forms required by 40D-4, F.A.C., and submit those forms and the required information to the SWFWMD for any modifications that might occur.

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2. Open Burning

Open burning in connection with initial land clearing shall be in accordance with Chapter 62-256, F.A.C., Chapter 5I-2, F.A.C., Uniform Fire Code Section 33.101 Addendum, and any other applicable county regulation.

Any burning of construction-generated material, after initial land clearing that is allowed to be burned in accordance with Chapter 62-256, F.A.C., shall be approved by the Southwest District office in conjunction with the Division of Forestry and any other county regulations that may apply. Burning shall not occur unless approved by the appropriate agency or if the Department or the Division of Forestry has issued a ban on burning due to fire safety conditions or due to air pollution conditions.

3. Sanitary Wastes

Disposal of sanitary wastes from construction toilet facilities shall be in accordance with applicable regulations of the appropriate local health agency.

4. Solid Wastes

Solid wastes resulting from construction shall be disposed of in accordance with the applicable regulations of Chapter 62-701, F.A.C.

5. Noise

Construction noise shall not exceed either local noise ordinance specifications, or those noise standards imposed by zoning.

6. Dust and Odors

The Licensee shall employ proper odor and dust control techniques to minimize odor and fugitive dust emissions. The applicant shall employ control techniques sufficient to prevent nuisance conditions on adjoining property.

7. Transmission Lines

The directly associated transmission lines from the Power Plant Station electric switchyard to the existing TEC transmission lines shall be cleared, maintained, and prepared in accordance with the application and the appropriate state and federal regulations concerning use of herbicides. TEC shall notify the Department of the type of herbicides to be used at least 60 days prior to its first use. Wetland mitigation shall be accomplished in accordance with Chapter 62-312, F.A.C., and Condition XXVIII.

8. Protection of Vegetation

The Licensee shall develop the site so as to retain a buffer of trees or shall plant a buffer of trees sufficient to minimize the aesthetic and noise impacts of the facility. The buffer, as far as practicable, shall be of sufficient height and width suitable for the purpose of mitigating both construction and operational impacts of the facility.

9. Dewatering Operations

The dewatering operations during construction shall be carried out in such a manner that all water withdrawn will be retained on site. There shall be no discharge of water

SECTION A: GENERAL CONDITIONS

off site due to dewatering operations unless approved by the Department and SWFWMD, or unless such discharge occurs as a result of an extreme rainfall event such as a 24-hour, 10-year storm.

C. Environmental Control Program

An environmental control program shall be established under the supervision of a Florida registered professional engineer to assure that all construction activities conform to applicable environmental regulations and the applicable conditions of certification. If a violation of standards, harmful effects or irreversible environmental damage not anticipated by the application or the evidence presented at the certification hearing are detected during construction, the Licensee shall notify the Southwest District office as required by Condition VII.

D. Reporting

1. Notice of commencement of construction shall be submitted to the Siting Coordination Office and the Southwest District office within fifteen (15) days of initiation. Starting three (3) months after construction commences, a quarterly construction status report shall be submitted to the Southwest District office. The report shall be a short narrative describing the progress of construction.

2. Upon or immediately prior to completion of construction of the Power Plant Station or a phase thereof and upon or immediately prior to completion of all necessary preparation for the operation of the on-site potable water supply, domestic or industrial waste treatment facility, ground water monitoring system, brine storage area or slag storage area, the Southwest District office will be notified of certification of construction completion and a date on which a site or facility inspection can be performed in accordance with Condition XVIII.

SECTION B: SPECIFIC CONDITIONS

SECTION B: SPECIFIC CONDITIONS

I. DEPARTMENT OF ENVIRONMENTAL PROTECTION

A. *Drinking Water Facilities*

1. Prior Approval

a. No portion of the potable water supply system or any portion of a water supply system that will be or is intended to be converted to potable water use at a later date may be constructed without prior written approval from the Department. Construction of any portion of the potable water supply system without the prior written approval of the Department will be considered a violation of the conditions of certification.

b. In order to obtain approval to construct a potable water supply system which includes an on-site water treatment facility, the following information must be submitted to the Department no earlier than one (1) year prior to the date that the water supply system is proposed for construction:

(1) A completed and fully executed "Application to Construct a Public Drinking Water System" form which complies with the requirements of the rules and regulations of the Department in effect as of the date that the request for approval to commence construction of the system is made to the Department.

(2) Copy of the well driller's well completion report for each well to be used as a potable water supply well.

(3) Complete water quality analysis of the raw water from each individual well to be used as a potable water supply well. Analysis of composite samples will not be accepted. The analysis must include all water quality parameters required for the classification of the water supply system being proposed pursuant to the rules and regulations of the Department in effect as of the date that the request for approval to construct the system is made to the Department. Each individual analysis must have been performed by a laboratory certified by the state to perform that particular potable water quality analysis and must have an analysis date within one (1) year of the date that the request for approval to construct the water supply system is made to the Department.

(4) Complete specifications for the material and workmanship for the entire potable water supply system for which the request for approval to construct is being made. The specifications must be signed and sealed by an engineer registered in the state of Florida and must provide documentation that the material and workmanship will comply with all applicable rules and regulations of the Department in effect as of the date that the request for approval to construct is made to the Department.

(5) Complete engineering drawings of the entire proposed potable water supply system for which approval to construct is being requested. The drawings must demonstrate full compliance with all applicable rules and regulations of the Department in effect as of the date that the request is made to the Department for approval to construct the system. The drawings must be signed and sealed by an engineer registered in the state of Florida.

SECTION B: SPECIFIC CONDITIONS

(6) Site plan showing the location of each potable water supply well. The site plan must include all proposed and existing, above and below grade, facilities, natural formations (e.g., streams, creeks, etc.), structures, etc. within a minimum of a complete five hundred (500) foot radius of each wellhead; however, if any facility, natural formation, structure, etc., is located outside of the five hundred (500) foot radius and that facility, natural formation, structure, etc., has a setback distance from the wellhead greater than five hundred (500) feet established in applicable rules of the Department in effect as of the date that the request for approval to construct is made, then that facility, natural formation, structure, etc., must also be shown on the site plan requested here. The site plan must be certified for accuracy by the professional engineer registered in the state of Florida responsible for design of the potable water supply system.

(7) Signed and sealed comprehensive engineering report on the proposed potable water supply system which fully describes the project and basis of design. The report must include design data and such pertinent data to give an accurate understanding of the work to be undertaken and must provide supporting documentation that the potable water system as proposed will comply with all applicable rules and regulations of the Department in effect as of the date that the request for approval to construct the water supply system is made to the Department.

c. Construction of potable water lines for the purpose of obtaining potable water from an off-site public water supply system is not covered by the conditions of certification. To obtain permission to connect to such a potable water system, TEC shall submit a modification request pursuant to 403.516, F.S., in accordance with the requirements of Chapter 62-555, F.A.C.

d. Prior to submitting any information to the Department for review of the proposed potable water supply system, all wells that are proposed for use as potable water supply wells and that will be included in the request for approval to construct the water supply system must have been constructed and fully developed. Once the well has been fully developed and the water samples collected, the well must be properly capped (or isolated from the potable water system) until written approval to construct the potable water supply system has been issued by the Department.

e. Should TEC request approval to construct a water treatment system which produces a waste stream (e.g., softening, electrodialysis, reverse osmosis, etc.) other than as described in the original SCA, TEC must submit as part of its request for approval to construct that water supply system documentation that the disposal of that waste stream has been approved by the appropriate agency or section of the Department.

2. Construction

a. TEC must retain the services of a project engineer registered in the state of Florida to observe that the construction of the water supply system is in accordance with the plans and specifications approved by the Department. The project engineer will be responsible for certifying to the Department that he/she observed the construction and that the construction conformed to the plans and specifications approved by the Department.

b. The approval to construct the potable water supply system will be in effect for two (2) years from the date of issuance. All construction of the potable water supply

SECTION B: SPECIFIC CONDITIONS

system must be completed within this two (2) year period unless a written request for an extension of this date is made to the Department at least sixty (60) days prior to the expiration of the construction approval, and written approval for an extension of the expiration date is issued by the Department. The expiration date of the construction approval may be extended on a year by year basis; however, under no circumstances will the approval to construct the water supply system be extended beyond three (3) years from the date of the earliest water quality analysis of the initial wells. The request for an extension of the expiration date must be accompanied by an analysis of the raw water from each well for each water quality parameter required pursuant to the requirements of the rules and regulations of the Department in effect as of the date that the request for the extension is made. Such an analysis and a request for approval shall be submitted and approved prior to constructing and operating any portion of the appurtenances necessary to connect and operate that new well to the existing system for each new well added to the potable water system after the initial system is constructed and approved. The water quality analysis report submitted with this request must have an analysis date no earlier than one (1) year from the date that the request for an extension of the expiration date is made, must have been performed by a laboratory certified by the state to perform the analysis, and must contain no water quality violations other than those for which the water supply system was originally designed to address. The maximum length of time that the approval or each subsequent approval for the construction of the potable water system may be in effect is five (5) years from the date of the original approval or for subsequent approvals from the date of issuance of each approval. Should the construction of the water supply system not be completed within that five (5) year period, should TEC have failed to request a timely extension of the approval expiration date, or should any water quality analysis submitted with the request for an extension of the expiration date demonstrate the presence of a contaminant for which the water treatment plant was not originally designed to handle, or as additional wells are installed on-site and proposed for connection to the potable water system, TEC will have to make a new request to the Department for approval to construct the potable water system. That request must meet the submittal and approval requirements of the rules of the Department in effect as of the date that the request for approval is submitted and will be subject to the same review schedule as the original request.

3. Operation

a. No portion of the potable water supply system may be placed into service without the prior written approval of the Department. Placing any portion of the potable water supply system into service prior to receipt of this written approval will be considered as a violation of the conditions of certification.

b. The Department will not issue approval to place the potable water supply system or any portion of that system into service unless the construction of the system or portion thereof had been approved for construction by the Department prior to the commencement of that construction.

c. In order to obtain approval to place the potable water supply system into service, TEC must make a written request for clearance to the Department. The request must be in the form and/or manner stipulated in the letter authorizing construction of the potable water supply system and must include all information stipulated in that letter as being required to be submitted with the request for clearance, as well as any information required for clearance of a potable water supply system contained in applicable rules and regulations of the Department in effect as of the date that the request for clearance is made.

SECTION B: SPECIFIC CONDITIONS

d. The Department will issue a letter of clearance to place the water supply system into service within thirty (30) days of receipt of a written request for clearance, provided that the request is accompanied by all necessary supporting documentation and meets the criteria for clearance contained in the applicable rules and regulations of the Department in effect as of the date that the request for clearance was made.

e. All construction or activity taking place in the vicinity of the potable water supply wells must conform with the setback distances from a potable water supply well established in the rules of the Department at the time that the construction or activity is proposed and must be coordinated with the Department.

f. TEC must provide, in accordance with applicable state rules, a certified water treatment plant operator who meets the staffing requirements for the type and capacity of the water treatment system cleared for service.

g. The water meter at the potable water treatment plant(s) must be read at approximately the same time each day, seven days per week, and both the meter reading and the gallons of water pumped to distribution recorded in the plant log.

h. The certified water treatment plant operator must submit a report on the operation of the water treatment plant(s) to the Department monthly in the manner required by the rules and regulations of the Department.

i. The drinking water must be analyzed for all applicable water quality parameters to the degree and frequency required by the rules and regulations of the Department. The analysis must be performed in accordance with these rules and regulations and submitted to the Department in the format required by these rules and regulations.

j. The one day maximum day demand for the period of time covering the most recent twelve (12) months of operation of the water treatment plant may not exceed the capacity of the water treatment plant approved for construction and cleared for use by the Department. Should the demand on any one day during a twelve (12) month period exceed the capacity of the water treatment plant, TEC shall submit a request for any expansion of the potable water system for review and approval.

k. TEC must plan, design, obtain approval for, and construct all necessary modifications to its water supply system in a timely manner in order to provide sufficient capacity to meet the potable water demands of its system.

l. TEC must operate the water supply system in such a manner as to comply with the provisions of Chapter 403, F.S., and all the rules of the Department.

B. Industrial Wastewater

1. The Licensee shall assure that the sludge filter cake generated from the industrial wastewater treatment plant will meet the leachate standards established by the Toxicity Characteristic Leaching Procedure prior to its disposal.

2. The solids generated by the brine concentration system should be concentrated or dewatered to obtain a solids content of 50 percent or greater prior to disposal off-site.

3. Water Treatment Systems

SECTION B: SPECIFIC CONDITIONS

a. Low Volume Wastes - All discharges of low volume wastes shall be treated in an adequately sized and constructed treatment facility prior to discharge into the cooling pond. TEC shall demonstrate that the discharge of reject water from the wastewater treatment plant will not cause or contribute to a violation of water quality standards at the POD from the cooling pond. Such demonstration will include as a minimum the testing of treated discharges as required by Condition I.B.12.

b. Submission of Plans - The Licensee shall submit to the Department at least ninety (90) days prior to start of construction of the industrial waste treatment system a set of drawings, signed and sealed by a professional engineer registered in the state of Florida, showing the construction details of the proposed lime/soda ash pretreatment system and multi-stage reverse osmosis system.

c. Record Drawings for the Reclaimed water treatment system, neutralization system and the High-Temperature Syngas Cleanup and Carbon Capture and Sequestration Treatment System-

i. Prior to placing the new facilities into operation or any individual unit processes into operation, for any purpose other than testing for leaks and equipment operation, the licensee shall complete and submit to the Department DEP Form 62-620.910(12), Notification of Completion of Construction for Wastewater Facilities or Activities. [62-620.410(7)]

ii. Within six months after a facility is placed in operation, the permittee shall submit to the Department's SWD, record drawings and written certification on Form 62-620.910(13) that a copy of the record drawings pursuant to Chapter 62-600, F.A.C., is available at the location specified on the form. [62-620.410(6)]

d. Chemical Metal Cleaning - Chemical metal cleaning wastes shall be disposed off-site in an approved treatment system or disposal area. Prior to operation, TEC shall provide the name and address of the firm holding the contract for off-site disposal to the Southwest District office of the DEP.

4. The Licensee shall ensure that construction and subsequent operation of the cooling pond, and its system of above-grade internal dikes and external berms shall be in strict accordance with the best engineering practices, using Chapter 62-672, F.A.C., where applicable as a guide.

5. The Licensee shall ensure that a vegetative or non-vegetative cover adequate to inhibit wind and water erosion shall be established and maintained on all exposed dam surfaces. Such vegetation shall be maintained by the Licensee sufficiently low enough to permit visual inspection of the soil surfaces in critical areas outlined in Section 62-672.400(1), F.A.C.

6. The Licensee shall, at a minimum, inspect the cooling pond once per week as prescribed in Section 62-672.500(2), F.A.C.

7. An inspection of the cooling pond berms shall be conducted annually by a professional engineer registered in Florida experienced in the field of construction and maintenance of dams. A copy of the inspection report shall be furnished, upon receipt by the Licensee, to the Department for review [Section 62-672.500(5), F.A.C.].

SECTION B: SPECIFIC CONDITIONS

8. The Licensee shall ensure that the cooling pond will be designed, constructed and operated to maintain a surge capacity equal to the runoff from a 100-year, 24-hour rainfall event, plus the flow of all process water diverted from the power plant operation.

9. The Licensee shall dispose of all waste oil collected from the oil/water separator in a Department approved manner.

10. The Licensee shall not allow any waste sludge or other solid waste to be discharged into the receiving waters either directly or indirectly.

11. During the period of operation authorized by this license, the wastewater facilities shall be operated under the supervision of a person who is qualified by formal training and/or practical experience in the field of water pollution control. [62-620.320(6)]

12. Sampling and Design

Within twelve (12) months from commencement of operation of the IGCC, each of the waste streams discharged to the cooling reservoir shall be properly characterized through an approved sampling and analytical protocol.

a. Ninety (90) days prior to operation of the unit producing the listed waste stream, TEC shall submit for approval a sampling and analysis plan identifying the expected frequency of each wastewater discharge, appropriate sampling parameters, expected variability of the wastewater stream quality and a proposed sampling schedule.

b. The sampling plan shall also include an assessment of the effectiveness of each of the wastewater treatment units prior to discharge to the cooling pond. Effluent sampling shall be conducted for each unit through a plan submitted as specified in Condition I.C.1.

c. Upon approval by the Department, the sampling and analysis plan specified in Condition I.C.1. shall be implemented.

13. The Licensee is authorized to use and treat reclaimed water from the City of Lakeland as an alternative supply to ground water for cooling reservoir make up water.

14. The Licensee is authorized to provide treatment for Polk Unit 1 to remove sulfur, reduce trace contaminants and convert removed sulfur compounds to elemental sulfur. Carbon dioxide in the cleaned syngas will be temporarily captured. The Licensee shall notify the Department within 30 days of the completion of the pilot project.

15. Monitoring requirements under these Conditions are effective on the first day of the second month following the issuance of Modification N. Until such time, the licensee shall continue to monitor and report in accordance with previously effective Condition requirements, if any. During the period of operation authorized by these Conditions, the licensee shall complete and submit to the Department Discharge Monitoring Reports (DMRs) in accordance with the frequencies specified by the REPORT type (i.e. monthly, toxicity, quarterly, semiannual, annual, etc.) indicated on the DMR forms attached to these Conditions. Monitoring results for each monitoring period shall be submitted in accordance with the associated DMR due dates below.

REPORT Type on DMR	Monitoring Period	Mail or Electronically Submit by
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Monthly or Toxicity	first day of month - last day of month	28th day of following month
Quarterly	January 1 - March 31	April 28
	April 1 - June 30	July 28
	July 1 - September 30	October 28
	October 1 - December 31	January 28
Semiannual	January 1 - June 30	July 28
	July 1 - December 30	January 28
Annual	January 1 - December 31	January 28

The licensee may submit either paper or electronic DMR forms. If submitting paper DMR forms, the licensee shall make copies of the attached DMR forms, without altering the original format or content unless approved by the Department, and shall submit the completed DMR forms to the Department postmarked by the twenty-eighth (28th) of the month following the month of operation at the addresses specified below:

Originals to:

Florida Department of Environmental Protection
Wastewater Compliance Evaluation Section, Mail Station 3551
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Copies to:

Florida Department of Environmental Protection
Industrial Wastewater Program
Southwest District Office
13051 N. Telecom Parkway
Temple Terrace, FL 33637-0926

Siting Coordination Office

SCO@dep.state.fl.us

If submitting electronic DMR forms, the licensee shall use the electronic DMR system(s) approved in writing by the Department and shall electronically submit the completed DMR forms to the Department by the twenty-eighth (28th) of the month following the month of operation. Data submitted in electronic format is equivalent to data submitted on signed and certified paper DMR forms. [62-620.610(18)]

The Licensee may submit electronic DMRs (eDMRs). Additional information and application forms can be found at the following website:

<http://www.dep.state.fl.us/water/wastewater/wce/edmr/>

SECTION B: SPECIFIC CONDITIONS

For additional information on wastewater electronic reporting, please contact the eDMR Administrator by email at eDMRadmin@dep.state.fl.us or by phone at (850) 245-8567.

[Rules 62-620.610(18) and 62-601.300(1),(2), and (3), F.A.C.]

C. Industrial Wastewater Ground Water Monitoring

1. The Licensee shall comply with the requirements of the approved Polk Power Station (PPS) Groundwater Construction, Operation and Maintenance Requirements (GWCOMR) – Industrial Wastewater (Attachment C-1 to these Conditions). A violation of the requirements of the GWCOMR shall be a violation of these Conditions.

TECO shall abide by the conditions of the approved site-wide GWCOMR and any subsequent modification thereof for the continued authorized discharge of industrial waste water to ground water. Such provisions shall be fully enforceable as conditions of this certification.

a. The requirements of the GWCOMR shall include, but not be limited to, at least the following:

- i. monitoring well construction requirements,
- ii. updated aerial showing all monitoring wells (existing and new),
- iii. a description of the complete IWW system including IWW treatment systems, and monitoring wells,
- iv. parameters to be sampled at each monitoring well,
- v. monitoring frequencies, and
- vi. operation requirements.

b. The GWCOMR shall be revised to comply with the provisions contained in Rules 62-620.325 and 62-620.345, F.A.C., if applicable, or to comply with any applicable effluent standard or limitation issued or approved under Section 301(b)(2)(C) and (D), 304(b)(2) and 307(a)(2) of the Clean Water Act (the Act), as amended, by change in the effluent standards, limitations, or water quality standards previously issued or approved. Revisions to the GWCOMR which involve the following shall be considered a modification to these Conditions and shall be processed in accordance with Section 403.516(1)(c), F.S., and Rule 62-17.211, F.A.C. as applicable.

- i. New major sources or deletion of existing major sources of wastewater;
- ii. Improvements made to existing, or new wastewater treatment facilities including those which provide for a new or expanded land application system which will result in an increase in the permitted capacity;
- iii. Incorporation of newly promulgated applicable rules which are not currently reflected in the License or promulgated rules which are more stringent than the existing conditions in the License;

SECTION B: SPECIFIC CONDITIONS

iv. Pollutants not addressed in the GWCOMR or these Conditions;

c. All other revisions or updates to the GWCOMR shall be submitted to the DEP Southwest District Office Industrial Wastewater Program as appropriate for review and approval with copies to the Siting Office. Review shall be in accordance with Section A, Condition XIII. Procedures for Post-Certification Submittals. Additionally, the GWCOMR may be updated to adjust effluent limitations or monitoring requirements should future Water Quality Based Effluent Limitation determinations, water quality studies, DEP approved changes in water quality standards, or other information show a need for a different limitation or monitoring requirement. The Department may develop a Total Maximum Daily Load (TMDL). Once a TMDL has been established and adopted by rule, the Department shall revise the GWCOMR or these Conditions to incorporate the final findings of the TMDL

d. The licensee shall provide verbal notice to the Department as soon as practical after discovery of a sinkhole within an area for the management or application of wastewater or sludge. The licensee shall immediately implement measures appropriate to control the entry of contaminants, and shall detail these measures to the Department in a written report within 7 days of the sinkhole discovery.

2. The Zone of Discharge for each site, shall be horizontally located 100 feet from the disposal site boundary and as defined by the locations and depths of compliance wells.

[62-520.200(27), F.A.C.]

3. Consideration of requests for ground water variances shall be postponed until two (2) years after the beginning of plant operations. A variance from the drinking water quality standard for antimony may be granted by the Department upon demonstration that levels of antimony in the cooling pond exceed the standard in Rule 62-520, F.A.C. However, if representative ambient values for iron and color are shown to already exceed secondary drinking water standards, then these representative values shall be the prevailing standard.

[62-520.420(2), F.A.C.]

D. Mine Reclamation Requirements

1. Land Donation

In lieu of reclamation and restoration, TEC shall donate 1,511 acres of land in Tract B of the Polk Power Station site in Polk County to the Board of Trustees of the Internal Improvement Trust Fund, donate 589 acres of submerged lands adjacent to the Cockroach Bay Aquatic preserve the Tampa Bay Port Authority, and abide by the Conservation Easement for uplands adjacent to Cockroach Bay in Hillsborough County as granted to the State of Florida Board of Trustees in consideration for the variance to phosphate mine reclamation requirements and to provide significant regional benefit to wildlife and the environment as required for variances in accordance with Section 378.212(1) Florida Statutes. Such donation and transfer of ownership shall be as attached as Attachment D hereto and as described in the Easement recorded in Hillsborough County Public Records Official Record Book 12822, Pages 1397 thru 1423; and the Conservation Easement as recorded in Hillsborough County Public Records Official Record Book 12822, Pages 1424 through 1452.

SECTION B: SPECIFIC CONDITIONS

2. Dragline Walk Path

TEC shall retain an easement along the west side of State Road 37 sufficiently wide for use as a drag-line walk path. TEC shall be responsible for notifying the Siting Coordination Office, and the Department's Bureau of Mine Reclamation of a proposed usage of the drag-line walk path on the west side of SR 37 at least fifteen (15) days prior to the event. With the notification, TEC shall provide the Bureau of Mine Reclamation and the Southwest District Office with certified drawings showing the proposed modifications to jurisdictional wetland areas. Within twenty-four (24) hours of the dragline crossing, any wetlands that were impacted by the crossing, shall be restored to original grade and stabilized by either planting or sodding. Use of the drag-line walk path for a future transmission line corridor will require TEC to submit an amendment to the original application and to submit a petition for modification of the applicable conditions of certification.

3. Cockroach Bay

After transferring ownership of the approximately 589 acres of submerged lands in Hillsborough County adjacent to the Cockroach Bay Aquatic Preserve to the Tampa Bay Port Authority, and the Conservation Easement uplands and wetlands to the State of Florida Board of Trustees, as described in Condition I.F.4. above and Attachment D, TEC shall provide the State with easements for access and for management purposes including permanent State access to the uplands north of the Reeder property and at the shell pits located at the southwest side of the parcel as described in Attachment D. If TEC should decide to sell lands they hold in ownership that buffer the 1433 acres of uplands property, TEC shall offer a public entity including the State, Hillsborough County, or Southwest Florida Water Management District, or a non-profit entity, whose mission is conservation, the right of first refusal.

E. Herbicides.

Herbicides used in the transmission line ROW or on the certified site shall include only those registered by the U.S. Environmental Protection Agency and which have state approval. Herbicide application rates and concentrations will be in accordance with label directions and will be carried out by a licensed applicator, meeting all federal, state, and local regulations. Herbicide applications shall be selectively applied to targeted vegetation. Broadcast or aerial application of a herbicide shall not be used in the ROW or on the certified site unless approved in writing by DEP.

II. DEPARTMENT OF TRANSPORTATION

A. Traffic Monitoring – SR 37 & CR 630

By 1995, TEC shall begin a traffic monitoring program at the intersection of SR 37 and CR 630 for determining the need to install a traffic signal or to make geometric improvements. Intersection monitoring shall consist of conducting turning movement counts and a signal warrant analysis. The monitoring shall be conducted once per year in January, February or March, until the number of employees has peaked or a signal and appropriate intersections improvements are installed, whichever comes first. Should the traffic monitoring program show the need for a new traffic signal and/or geometric improvements as a result of traffic to the Polk Power Station, it shall be the responsibility of TEC to install a new traffic signal and/or to make geometric improvements.

SECTION B: SPECIFIC CONDITIONS

B. Traffic Monitoring – SR 37& CR 640

By 1995, TEC shall begin a traffic monitoring program at the intersection of SR 37 and CR 640 for determining the need to install a traffic signal or to make geometric improvements. Intersection monitoring shall consist of conducting turning movement counts and a signal warrant analysis. The monitoring shall be conducted once per year in January, February or March, until the number of employees has peaked or a signal and appropriate intersections improvements are installed, whichever comes first. Should the traffic monitoring program show the need for a new traffic signal and/or geometric improvements as a result of traffic to the Polk Power Station, it shall be the responsibility of TEC to install a new traffic signal and/or to make geometric improvements.

C. Work/Construction within the State Rights-of-Way

All utility work/construction within the state rights-of-way shall conform to the minimum requirements of the Utility Accommodation Guidelines (UAG) dated 5/90, or as may be amended. For all work normally requiring a Utility Permit, FDOT shall issue the permit within ninety (90) days, or as may be required by the UAG, of the submission of a satisfactorily completed Utility Permit (Form #592-03, or as may be amended).

D. New and Modifications to Existing Intersections

Construction of new and modifications to existing intersections with state roads shall be in compliance with Rule Chapters 14-96 and 14-97, F.A.C. For construction of new and modifications to existing intersections with state roads, FDOT shall assign a permit number within ninety (90) days of the submission of a satisfactorily completed Connection Permit [Form #850-040-10-a (12/89), or as may be amended].

E. New Public Rail/Highway At-Grade Crossings

Any new public rail/highway at-grade crossings which may be deemed necessary for this site by TEC must adhere to the standards of Rule 14-46.003, F.A.C. TEC shall submit the appropriate information on the proposed crossing to FDOT for review and approval.

F. Erection of Towers and/or Structures

Erection of towers and/or structures that exceed an overall height of 200 feet above ground level, including any appurtenances, must be coordinated with FDOT's Aviation Bureau in Tallahassee as required by Chapter 14-60, F.A.C.

III. DEPARTMENT OF COMMUNITY AFFAIRS

A. To the extent feasible, TEC shall avoid guyed transmission line structures in any residential areas to reduce visual impact.

B. To the extent feasible, TEC shall locate the proposed linear facilities within existing utility rights-of-way.

C. To the extent feasible, TEC shall locate the transmission line away from residences, schools, and places of employment.

D. Hazardous and Non-Hazardous Materials

1. The Licensee shall make all feasible efforts to recycle project wastes.

SECTION B: SPECIFIC CONDITIONS

2. The Licensee shall treat its sanitary waste on-site and route it to the cooling pond in order to reduce ground water withdrawals.

IV. FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION

A. *General Listed Species Survey*

1. The Licensee shall coordinate with the Florida Fish and Wildlife Conservation Commission (FWC) to obtain and follow the current survey protocols for all listed species that may occur within associated facilities and/or expansions of plant site and accessible appropriate buffers as defined by the listed species' survey protocols, prior to conducting detailed surveys.

2. Surveys shall be conducted prior to clearing and construction in accordance with the survey protocols. The results of those detailed surveys shall be provided to FWC in a report, and coordination shall occur with the FWC on appropriate impact mitigation methodologies.

[Article IV, Sec. 9, Fla. Constitution; Section 379.2291, F.S., Sections 403.507 and 403.5113(2), F.S., and Chapter 68A-27, Florida Administrative Code (F.A.C.).]

B. *Specific Listed Species Surveys*

Before land clearing and construction activities within associated facilities and/or plant site expansions occur, the Licensee shall conduct an assessment for listed species which shall note all habitat, occurrence or evidence of listed species. Listed species to be included in this survey shall include the bald eagle and those species listed as endangered, threatened, or of special concern by the FWC or those listed as endangered or threatened by U.S. Fish and Wildlife Service (USFWS). Wildlife surveys shall be conducted in the reproductive or "active" season for each species that falls before the projected clearing activity schedule unless otherwise approved by the FWC or USFWS. For species that are difficult to detect, the Licensee may make the assumption that the species is present and plan appropriate avoidance/mitigation measures after consultation and approval from the FWC.

1. This survey shall be conducted in accordance with USFWS/FWC guidelines and methodologies by a person or firm that is knowledgeable and experienced in conducting flora and fauna surveys for each potentially occurring listed species.

2. This survey shall identify any wading bird colonies within the project that may be affected.

3. This survey shall identify locations of breeding sites, nests, and burrows for listed wildlife species. Nests and burrows may be recorded with GPS coordinates, identified on an aerial photograph, and submitted with the final listed species report. Although nests and burrows may be recorded individually with GPS, the FWC prefers that any applicable protection radii surrounding groups of nest sites and burrows be included, rather than around individual nests and burrows, and be physically marked so that clearing and construction shall avoid impacting them.

4. This survey shall include an estimate of the acreage and percent cover of each existing vegetation community (Florida Land Use, Cover and Forms Classification System, or FLUCFCS, at the third degree of detail) including a wildlife-based habitat classification scheme such as the Comprehensive Wildlife Conservation Strategy (FWC 2005), Descriptions of

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Vegetation and Land Cover Types (FWC 2004), or Natural Communities Guide (FNAI 1990) of each community that is contained within associated facilities and/or plant site expansions prior to land clearing and construction activities using GIS.

[Article IV, Sec. 9, Fla. Constitution; Sections 379.2291, F.S.; and Chapters 68A-27, 68A-4, 68A-16, F.A.C.]

C. Listed Species Locations

Where any suitable habitat or evidence is found of the presence of listed species within the associated facilities and/or plant site expansions, the Licensee shall report those locations to, and confer with, the appropriate regulatory agencies for possible additional pre-clearing surveys and to identify potential mitigation, or avoidance recommendations. If pre-clearing surveys are required, they shall be timed to be reasonably compatible with the construction schedule, considering the anticipated date for the start of construction within an associated facilities and/or plant site expansion. The Licensee shall not construct in areas where evidence of listed species was identified during the initial survey until the particular listed species issues have been resolved as follows:

1. Listed Wildlife Species:

If listed wildlife species are found, their presence shall be reported to the DEP Siting Coordination Office, the appropriate DEP District Office(s), the FWC Office of Planning and Policy Coordination, the appropriate WMD, the appropriate local government(s), the USFWS, and the National Park Service as appropriate.

2. Species Management Plan:

If avoidance of state-listed wildlife species is not feasible, the Licensee shall consult with the FWC to determine the steps appropriate for the species involved to avoid, minimize, mitigate, or otherwise appropriately address potential impacts. For wildlife species, these steps shall be memorialized in a Wildlife Management Plan and submitted to the FWC.

[Article IV, Sec. 9, Fla. Constitution; Sections 379.2291 and 403.5113(2), F.S.; and Chapter 68A-27, F.A.C.]

V. DEPARTMENT OF STATE – DIVISION OF HISTORICAL RESOURCES

A. The Licensee shall conduct a survey of sensitive cultural resource areas, as determined in consultation with the Department of State, Division of Historical Resources (DHR). A qualified cultural resources consultant will identify an appropriate work plan for this project based on a thorough review of the Certified Facility. Prior to beginning any field work, the work plan will be reviewed in consultation with DHR. Upon completion of the survey, the results will be compiled into a report which shall be submitted to DHR. If feasible, sites considered to be eligible for the National Register shall be avoided during construction of the project and access roads, and subsequently during maintenance. If avoidance of any discovered sites is not feasible, impact shall be mitigated through archaeological salvage operations or other methods acceptable to DHR, as appropriate.

B. If historical or archaeological artifacts or features are discovered at any time within the Certified Facility, the Licensee shall notify the appropriate DEP District office (s) and the DHR, R.A. Gray Building, 500 S. Bronough Street, Rm 423, Tallahassee, Florida 32399-

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0250, telephone number (850) 487-6333, and the Licensee shall consult with DHR to determine appropriate action.

[Sections 267.061, 403.531, and 872.02, F.S.]

VI. SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT(S)

A. Water Use Permitting Conditions

1. If any of the statements in the application and in the supporting data are found to be untrue and/or inaccurate, or if TEC fails to comply with all of the provisions of Chapter 373, F.S., Chapter 40D, F.A.C., or the conditions set forth herein, the SWFWMD shall initiate action for suspension or revocation of certification.

2. This certificate is issued based on information provided by TEC demonstrating that the use of water is reasonable and beneficial, is consistent with the public interest, and will not interfere with any existing legal use of water. If it is determined by the SWFWMD that the use is not reasonable and beneficial, is not in the public interest, or does impact an existing legal use of water, the SWFWMD shall initiate action for suspension or revocation of certification.

3. TEC shall not deviate from any of the water use related terms or conditions of the site certificate without written approval by the SWFWMD.

4. In the event the SWFWMD declares that a water shortage exists pursuant to Chapter 40D-21, F.A.C., the SWFWMD shall initiate any required action to alter, modify, or declare inactive all or parts of this certification as necessary to address the water shortage.

5. The SWFWMD shall collect water samples from any withdrawal point listed in the certificate or shall require TEC to submit water samples when the SWFWMD determines there is a potential for adverse impacts to water quality.

6. The SWFWMD shall initiate any necessary action to require TEC to cease or reduce withdrawal if water levels in aquifers fall below the minimum levels established by the Governing Board.

7. TEC shall practice water conservation to increase the efficiency of transport, application, and use, as well as to decrease waste and to minimize runoff from the property. At such time as the Governing Board adopts specific conservation requirements for TEC's water use classification, the SWFWMD shall initiate any required action to make this certification subject to those requirements upon notice and after a reasonable period for compliance.

8. The SWFWMD may establish special regulations for permits within the regions designated a Water Use Caution Area. If the SWFWMD has established, or establishes in the future, a Water Use Caution Area for the region that encompasses this certificate, at such time as the Governing Board adopts such special regulations, the SWFWMD shall initiate any required action to make TEC subject to them upon notice and after a reasonable period for compliance.

9. TEC shall mitigate, to the satisfaction of the SWFWMD, any adverse impact to existing legal uses caused by withdrawals. When adverse impacts occur or are

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imminent, the SWFWMD shall require TEC to mitigate the impacts. Adverse impacts include, but are not limited to:

- a. A reduction in water levels which impairs the ability of a well to produce water;
- b. Significant reduction in levels or flows in water bodies such as lakes, impoundments, wetlands, springs, streams or other water courses; or,
- c. Significant inducement of natural or manmade contaminants into a water supply or into a usable portion of any aquifer or water body.

10. TEC shall mitigate to the satisfaction of the SWFWMD any adverse impact to environmental features or off-site land uses as a result of withdrawals. When adverse impacts occur or are imminent, the SWFWMD shall require TEC to mitigate the impacts. Adverse impacts include the following:

- a. Significant reduction in levels or flows in water bodies such as lakes, impoundments, wetlands, springs, streams, or other watercourses;
- b. Sinkholes or subsidence caused by reduction in water levels;
- c. Damage to crops and other vegetation causing financial harm to the owner; and,
- d. Damage to the habitat of endangered or threatened species.

11. A SWFWMD identification tag shall be prominently displayed at each withdrawal point by permanently affixing the tag to the withdrawal facility.

12. TEC must notify the SWFWMD within thirty (30) days of the sale or transfer of permitted water withdrawal facilities or the land on which the facilities are located.

13. All reports required by the certificate shall be submitted to the SWFWMD on or before the tenth day of the month following data collection and shall be addressed to:

Southwest Florida Water Management District
Permits Data Section
2379 Broad Street
Brooksville, Florida 34609-6899

Unless otherwise indicated, three (3) copies of each plan or report, with the exception of pumpage, rainfall, evapo-transpiration, water level or water quality data which require one copy, are required by the certification.

14. Subject to the provisions of Condition ~~XXVI~~.A.27, TEC is authorized to withdraw from the Upper Floridan aquifer in support of the 260 MW nominal net generating capacity an amount of water not to exceed 5.24 MGD Annual Average Daily and 7.4 MGD Peak Month Daily. TEC is further authorized to withdraw, in support of 1,150 MW nominal net ultimate site capacity at its Polk Power Station, up to a total of 6.4 MGD Annual Average Daily and 9.22 MGD Peak Month Daily of water from the Upper Floridan aquifer, subject to the following conditions:

The total quantity of water which TEC is authorized to withdraw from the Upper Floridan aquifer shall be limited to 6.4 MGD Annual Average Daily, which amount is

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determined by the SWFWMD not to have an adverse effect on other legal existing users. However, withdrawal of any water from the Upper Floridan aquifer beyond 5.24 MGD Annual Average Daily and 7.4 MGD Peak Month Daily shall be subject to additional conditions. These conditions shall be applied during review pursuant to Section 403.517, F.S., of any supplemental application for the construction and operation of additional generating units or a further increment of generating capacity at the Polk Power Station. The conditions are as follows:

a. TEC shall demonstrate that any incremental quantity of process or cooling water which it proposes to withdraw from the Upper Floridan aquifer in support of generating units will be minimized to the greatest extent practicable by prudent technologically and economically feasible water conservation practices consistent with those generally required within the Southern Water Use Caution Area (SWUCA) of SWFWMD, including but not limited to the following:

- (1) Minimization of loss of water from the site during construction;
- (2) Use of water-conserving electric generation and pollution control technologies;
- (3) On-site rainwater and storm water capture and management;
- (4) Reuse of internal wastewater streams of technologically suitable quality;
- (5) Reuse of treated wastewater of technologically suitable quality available from other sources, such as publicly-owned sewage treatment facilities; and,
- (6) Use of other available sources of non-potable water of technologically suitable quality.

b. To the extent that total water use in the SWUCA is fixed in a manner which limits the withdrawal of Upper Floridan aquifer water for TEC's Polk Power Station, withdrawal by TEC from that source of any quantity greater than 5.24 MGD Annual Average Daily and 7.4 MGD Peak Month Daily must also be either:

- (1) Offset by retirement of permitted quantities which are actively used within the SWUCA, to the extent such quantities are eligible to provide offset, pursuant to agreements between TEC and other Licensees which are subject to review by SWFWMD for conformity with generally applicable standards; or,
- (2) Approved through the "competing application process" under the applicable standards of Section 373.233, F.S., and applicable SWFWMD rules.

c. To the extent that total water use in the SWUCA is not fixed in a manner which limits the withdrawal of Upper Floridan aquifer water for TEC's Polk Power Station, TEC may withdraw from that source up to 6.4 MGD Annual Average Daily and 9.22 MGD Peak Month Daily subject to the requirements of Condition VI.A.14.a(1)., but not subject to those of Condition VI.A.14.a(2).

15. TEC shall investigate the feasibility of using reclaimed water as a water source and submit a report describing the feasibility to the Permits Data Section by January 1,

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1995. The report shall contain an analysis of reclaimed water sources for the area, including the relative location of these sources to TEC's property, the quantity of reclaimed water available, the projected date(s) of availability, costs associated with obtaining the reclaimed water, and an implementation schedule for reuse, if feasible. Infeasibility shall be supported with a detailed explanation.

16. Within ninety (90) days of completion of construction of the withdrawal facility or prior to activation of a standby source, District ID Nos. 1, 2, 3, and 4, TEC ID Nos. P1, P2, P3, and P4, shall be equipped with non-resettable, totalizing flow meters, or other measuring devices as approved in writing by the Permitting Department Director, Resource Regulation, unless an extension is granted by the Director. Such devices shall have and maintain an accuracy within five percent of the actual flow as installed. Total withdrawal and meter readings from each metered withdrawal shall be recorded on a monthly basis and reported to the Permits Data Section (using district forms) on or before the tenth (10th) day of the following month. If a metered withdrawal is not utilized during a given month, a report shall be submitted to the Permits Data Section indicating zero gallons. Prior to meter installation, non-use shall be documented with monthly pumpage reports indicating zero gallons withdrawn.

17. Water quality samples shall be collected and analyzed, for parameter(s) and frequency(ies) specified below. Water quality samples from production wells shall be collected whether or not the well is being used, unless infeasible. If sampling is infeasible, TEC shall indicate the reason for not sampling on the water quality data form. Water quality samples shall be analyzed by a Department of Health (DOH) certified laboratory under Environmental Laboratory Certification General Category "1". At a minimum, water quality samples shall be collected after pumping the well at its normal rate for a pumping time specified in the table below, or to a constant temperature, pH, and conductivity. In addition, TEC's sampling procedure shall follow the handling and chain-of-custody procedures designated by the certified laboratory which will undertake the analysis. Any variance in sampling and/or analytical methods shall have prior approval of the SWFWMD Permitting Department Director, Resource Regulation. Reports of the analyses shall be submitted to the Permits Data Section (using SWFWMD forms) on or before the tenth (10th) day of the following month, and shall include the signature of an authorized representative and the certification number of the certified laboratory which undertook the analysis. The parameters and frequency of sampling and analysis may be modified by the SWFWMD Permitting Department Director, Resource Regulation, as necessary to ensure the protection of the resource.

SWFWMD ID NO	TEC ID NO.	MINIMUM PUMPING TIME (MINUTES)	PARAMETER	SAMPLING FREQUENCY
1	P1	45 minutes	Chlorides, Sulfates, TDS	Feb., May, Aug., & Nov.

Water quality samples shall be collected based on the following time table:

Quarterly Same week of months specified

Analyses shall be performed according to procedures outlined in the current edition of Standard Methods for Examination of Water and Wastewater, by the American Public Health Association-American Water Works Association-Water Pollution Control Federation

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(APHA-AWWA-WPCF) or Methods of Chemical Analyses of Water and Wastes, by the U.S. Environmental Protection Agency.

18. During drilling of SWFWMD ID Nos. 1 and 4, TEC ID Nos. P1 and P4, water quality samples shall be collected at intervals of 50 feet or less, from 300 feet to a maximum depth of five feet above the bottom of the well. Regardless of the specified sample collection interval, a sample shall be collected from the depth which corresponds to five feet above the bottom of the well. Samples shall be collected during reverse air drilling or other appropriate method with prior approval by the SWFWMD Permitting Department Director, Resource Regulation, which will allow representative samples for each depth to be collected. Samples shall be analyzed by a certified laboratory for chlorides, sulfates, and TDS. TEC's sampling procedure shall follow the handling and chain-of-custody procedures designated by the certified laboratory which will undertake the analysis. Reports of the analyses shall be submitted to the Permits Data Section (using SWFWMD forms) within thirty (30) days of sampling, and shall include the signature of an authorized representative and the certification number of the Department of Health (DOH) certified laboratory under Environmental Laboratory Certification General Category "1" which undertook the analysis.

Analyses shall be performed according to procedures outlined in the current edition of *Standard Methods for the Examination of Water and Wastewater*, by the (APHA-AWWA-WPCF) or *Methods for Chemical Analyses of Water and Wastes*, by the U.S. Environmental Protection Agency.

19. Within ninety (90) days of completion of construction of the first phase power generation facility, TEC shall install and maintain a continuous recording rain gauge in the area around SWFWMD ID No. 1. Total daily rainfall shall be recorded at this station and submitted to the Permits Data Section, on SWFWMD forms on or before the tenth day of the following month. The reporting period for these data shall begin on the first day of each month and end on the last day of each month. Final location shall be submitted plotted on an original blue-line aerial map or United States Geological Survey quadrangle map, or by providing latitude - longitude location.

20. Any wells not in use and in which pumping equipment is not installed shall be capped or valved in a water tight manner in accordance with Chapter 62-532.500(3)(a)(4), F.A.C.

21. TEC shall construct the proposed wells according to the surface diameter and casing depth specifications below. The casing depth specified is to prevent the unauthorized interchange of water between different water bearing zones. If a total depth is listed below, this is an estimate, based on best available information, of the depth at which high producing zones are encountered. However, it is TEC's responsibility to have the water in the well sampled during well construction, before reaching the estimated total depth. Such sampling is necessary to ensure that the well does not encounter water quality that cannot be utilized by TEC, and to ensure that withdrawals from the well will not cause saltwater intrusion.

SWFWMD ID NO.	TEC ID NO.	SURFACE DIAMETER	MINIMUM CASING DEPTH	ESTIMATED TOTAL DEPTH
1	P1	10 in.	300 ft.	900 ft.

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2	P2	10 in.	300 ft.	900 ft.
3	P3	24 in.	300 ft.	900 ft.
4	P4	24 in.	300 ft.	900 ft.

a. The casing shall be continuous from land surface to the minimum depth stated above;

b. All well casing (including liners and/or pipe) must be sealed with neat cement grout to the depth specified above;

c. The proposed wells(s) shall be constructed of materials that are resistant to degradation of the casing/grout due to interaction with water of lesser quality. A minimum grout thickness of two (2) inches is required on wells four (4) inches or more in diameter.

d. A minimum of twenty (20) feet overlap and two (2) centralizers is required for public supply wells, and all wells six (6) inches or more in diameter.

e. The finished well casing depth shall not vary from these specifications by greater than ten (10) percent unless advance approval is granted by the Permitting Department Director, Resource Regulation, or the supervisor of the Well Construction Permitting Section in Brooksville.

f. Advance approval from the Permitting Department Director, Resource Regulation is necessary should TEC propose to change the well location or casing diameter.

22. Within six (6) months of site certification issuance, TEC shall submit a detailed plan for a long-term aquifer performance test (APT) for approval by the Permitting Department Director, Resource Regulation. The test shall be conducted for a sufficient period of time to determine the leakance parameter between the surficial and intermediate aquifers and the leakance parameter between the intermediate and Upper Floridan aquifers. The test shall be conducted for a minimum of seven (7) days, and shall include collection of water quality data (see Condition VI.A.21 for water quality parameters). Attempts will be made to conduct the test during a period of minimal adjacent pumpage and during a period of minimal rainfall to minimize interference with the test. This test shall take place prior to initiation of pumpage from these wells. A report of the results of the test, including all raw data and analyses, shall be provided to the Permits Data Section within thirty (30) days of the completion of the test.

If any of the aquifer characteristics vary significantly from those used in the ground water flow model submitted with the certification, TEC shall submit an updated ground water flow model upon notification by the Permitting Department Director, Resource Regulation. This model shall utilize the actual aquifer characteristics determined during the APT to predict impacts due to ground water withdrawals at this site. If the new modeling (if required) indicates that there are adverse impacts not indicated in the SCA, TEC may be required to amend the Site Certification.

23. By January 1, 1998, TEC shall submit for approval by the Permitting Department Director, Resource Regulation, a water conservation plan for the purposes of documenting the current ground water use for each aspect of the plant's water use operations,

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and the existing and proposed water conservation programs which are, or will be, implemented to conserve ground water at the plant. The plan shall address the following:

a. Current Plant Operation

(1) For ground water and recycled surface water sources, separately document the processes which use water, and the magnitude of the use in terms of average annual and peak monthly quantities;

(2) For ground water and recycled surface water sources, separately document the range in monthly water use for each process;

(3) For ground water and recycled surface water sources, separately document the factors which contribute to monthly fluctuations in water use; and,

(4) Describe the methods used to determine the range in water use and the methods used to determine the factors which contribute to the water use fluctuations.

b. Future Plant Operation

(1) Determine processes which can be modified to reduce ground water dependency;

(2) Propose conservation measures for reducing ground water use and provide implementation dates; and,

(3) Propose methods for calculating the effectiveness of water conservation methods in Condition VI.A.23.b.(2) above.

24. Prior to dewatering within 2,640 feet of a property boundary, TEC shall comply with one of the following two (2) alternatives:

a. Secure written consent from all adjacent property users for lowering the water table below their lands. Three copies of the consent shall be submitted in writing to the Permitting Department Director, Resource Regulation prior to dewatering within the specified distance. This alternative cannot be used if adjacent lands contain wetlands or other water bodies within 2,640 feet of TEC's dewatering activity.

b. Implement a procedure to mitigate impacts by maintaining the water table at historic levels at the property boundary. TEC must obtain approval from the Permitting Department Director, Resource Regulation. The procedure shall include Conditions VI.A.25.a., b., c., d., and e.

25. Prior to dewatering within 2,640 feet of an on- or off-site wetland that is greater than 0.5 acre in size and will not be disturbed in association with this certification, TEC shall implement a procedure to mitigate impacts by maintaining the water table at historic levels beneath such wetlands or at the property boundary for off-site wetlands. Prior to implementation, TEC must obtain approval, in writing, from the Permitting Department Director, Resource Regulation. The procedure shall include:

a. A water table monitoring network, approved by the Permitting Department Director, Resource Regulation, designed to demonstrate that water table drawdown does not exceed one foot under on-site wetlands that will not be disturbed.

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b. Collection of water table level data after construction of the approved monitor well network for at least six (6) months prior to the initiation of dewatering in the area, to obtain background data. During this time period, water level data shall be recorded on a weekly basis and submitted monthly.

c. If a rim-ditch system is proposed to recharge the water table near on-site wetlands that will not be disturbed, design and operation details must be submitted to demonstrate that the water table will be maintained at appropriate levels based on the background data collected. Rim-ditch systems must also be accompanied by a monitor well network to verify water table maintenance.

d. At least one (1) month prior to the anticipated date of dewatering an area within the setback distance, water level data shall be recorded and submitted on a weekly basis.

e. Data collection shall continue for six (6) months following completion of dewatering and reclamation or until SWFWMD staff determine that background or steady-state levels are attained. During this time period, water level data shall be recorded on a weekly basis and reported monthly. Water levels shall be reported in feet relative to the National Geodetic Vertical Datum (N.G.V.D.).

26. TEC's current development schedule for ultimate site capacity at the Polk Power Station estimates incremental additions of generating capacity at an approximate average rate of approximately 72 MW (range of 65 to 220 MW) every two (2) to three (3) years for the period 1995 through 2010, both inclusive, for a total of approximately 1,150 MW nominal net generating capacity. The following additional requirements shall apply in order to ensure that TEC does not unnecessarily deprive other users of ground water:

a. In each supplemental application for the construction and operation of a further increment of generating capacity at the Polk Power Station, TEC shall indicate:

(1) Whether it has determined not to install any prior or subsequent increment of generating capacity;

(2) The basis for delay in the installation of any increment of generating capacity for more than five (5) years beyond the estimated schedule; and,

(3) The quantity of ground water from the Upper Floridan aquifer which any such increment of capacity that has been eliminated or delayed would have required.

b. If TEC has determined not to install any increment of generating capacity or in the absence of a reasonable basis for a delay greater than five (5) years, the quantity of ground water which TEC is authorized to withdraw from the Upper Floridan aquifer in support of ultimate site capacity may be reduced accordingly.

27. Prior to initiation of withdrawals from the proposed production wells in amounts in excess of 3.14 MGD Annual Average Daily and 5.8 MGD Peak Month Daily ground water quantities for the first phase, and 4.3 MGD Annual Average Daily and 7.6 MGD Peak Month Daily quantities for build-out, TEC must submit a detailed plan of study, including a detailed cost analysis for the treatment and reuse of the 2.1 MGD of cooling reservoir blowdown water (wastewater) that is proposed to be discharged to prevent the water quality in the cooling

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reservoir from exceeding Class III Florida water quality standards. This plan must address, but is not limited to: the initial investment capital costs for construction of the treatment facilities, operational costs of the treatment facility on an annual basis, costs associated with construction of the brine storage area, and the average cost to store and/or dispose of the brines on- or off-site. The study must also include a comparison of the above mentioned costs with the total budgeted project cost. TEC will also address the feasibility of reuse of treated wastewater of technologically suitable quality available from other sources, such as publicly owned sewage treatment facilities, and the feasibility of use of other available sources of non-potable water of technologically suitable quality. The study shall be submitted to the Permitting Department Director, Resource Regulation. Based on the information submitted, SWFWMD shall determine whether or not treatment of the wastewater is feasible. If SWFWMD, subject to approval pursuant to the site certification modification process, determines that treatment of this wastewater is economically feasible, then the first phase Annual Average Daily and Peak Month Daily ground water quantities shall be maintained at 3.14 MGD and 5.8 MGD, respectively, and the build-out Annual Average Daily and Peak Month Daily quantities shall be maintained at 4.3 MGD and 7.6 MGD, respectively. When treated wastewater is available to TEC for reuse and TEC can utilize the water, TEC shall prioritize the use of the treated wastewater above that of current groundwater withdrawals. If SWFWMD determines that treatment of this wastewater is economically infeasible, the quantities shall not change for the first phase.

If SWFWMD determines that treatment of the wastewater is infeasible for the first phase of the project, TEC shall submit a revised plan of study prior to any subsequent increases in power generation capacity and the corresponding increase in ground water requirements. If during the review of any of the subsequent plans of study SWFWMD determines that treatment of the wastewater is economically feasible, 2.1 MGD and 1.6 MGD, respectively, of the Annual Average Daily and Peak Month Daily quantities shall be designated as standby capacity from the quantities indicated in SWFWMD Water Use Condition VI.A.14. subject to approval pursuant to the site certification modification process.

VII. POLK COUNTY

A. CUP 92-05 Conditions

1. Permits

Copies of all federal permits and the PPSA certification order required for each phase of development of the Polk County Site facility shall be provided to the Polk County Planning Division Director prior to the commencement of building construction code compliance review.

2. Fuel

The project shall be restricted to the use of the following fuels: natural gas, coal, coal gas, petroleum coke, or oil unless a CUP modification is received.

3. Fire Protection Plan

Prior to obtaining a building permit, TEC shall submit an acceptable fire protection plan to Polk County outlining specific measures to be taken to meet all local fire codes and regulations. As part of these plans, TEC shall give consideration to foam systems for tank

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protection as discussed in NFPA 850(5-3.9.2) as part of the overall fire risk evaluation. The evaluation shall consider such factors as the specific type of tank to be utilized, exposure to other important structures, product value and resupply capability.

4. Emergency Management and Response Plans

Following site certification, and prior to commercial operation, TEC shall submit an acceptable Emergency Management Plan to Polk County (Office of Public Safety). This plan will detail emergency management procedures for any project-related, off-site incident in Polk County so as to minimize response time and maximize effectiveness to protect the public health, safety, and welfare.

5. Emergency Notice

TEC shall agree to immediately contact Polk County's Office of Public Safety when the applicant becomes aware of project-related off-site incidents which have the potential for affecting the public's health, safety, and welfare.

6. Transportation

a. In 1995, 1996, and 1997, TEC shall begin a traffic monitoring program at the intersection of SR 37 and CR 630 to monitor the need to install a traffic signal or to make geometric improvements. Intersection monitoring shall consist of conducting turning movement counts and a signal warrant analysis. The monitoring shall be conducted once in 1995, 1996, and 1997, during January, February, or March and reported to the Transportation Section of the Planning Division. Should the traffic monitoring program show the need for a new traffic signal as a result of traffic to the Polk Power Station, it shall be the responsibility of TEC to install such a signal.

b. In 1995, 1996, and 1997, TEC shall begin a traffic monitoring program at the intersection of CR 630 and Fort Green Road to monitor the need to install a traffic signal or to make geometric improvements. Intersection monitoring shall consist of conducting turning movement counts and a signal warrant analysis. The monitoring shall be conducted once in 1995, 1996, and 1997, during January, February, or March. Should the traffic monitoring program show the need for improvements as a result of traffic to the Polk Power Station, it shall be the responsibility of TEC to install a new traffic signal or to make geometric improvements.

7. Solid Waste Disposal

a. TEC shall be responsible for proper disposal of slag and/or ash by-products produced in the power generation process at locations other than at county landfills.

b. TEC shall monitor ground water in relation to by-product and temporary storage areas and make available to the county all data produced from the ground water monitoring system. Upon 24-hour notice, TEC shall allow county staff members access to the site for purposes of examining the condition of the ground water monitoring equipment.

8. Hazardous Materials Storage

TEC shall report its storage and usage of hazardous material annually to Polk County's Environmental Services Department and shall allow the county to make random inspection of the facility to determine compliance with the reporting requirements. As part of the

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first report, TEC shall specifically address provision (a) through (g) of Comprehensive Plan Policy 2.310A4.

9. Spill Prevention Containment and Control Plan (SPCC)

TEC shall be required to submit a preliminary Spill Prevention Containment and Control Plan (SPCC) to the Polk County Public Safety Department and the Polk County Planning Department as part of the building construction code compliance review. The final SPCC Plan shall be submitted within six (6) months after the date the facility begins operations. Spill Prevention Containment and Control Plan updates and amendments, due to a change in design, construction, operation, technology, or maintenance, shall be submitted within six (6) months of such change.

10. Flood Study

TEC shall submit a flood study within one (1) year of release of reclamation of the site.

11. Stack Emissions Monitoring

TEC shall make available to the county all data produced from the emissions monitoring systems for the exhaust stack when requested and shall allow designated county staff members access to the site for purposes of examining the condition of this equipment, upon prior notice.

12. Compliance with Applicable Air Quality Regulations

TEC shall comply with applicable air quality regulations in effect at the time of filing of each site certification application or supplemental application for each phase of development of the Polk Power Station.

13. Wildlife Habitat Management Plan

Within one (1) year of release of reclamation of the site by DEP, TEC shall prepare a wildlife management plan in consultation with the Florida Game and Fresh Water Fish Commission, Polk County and other interested parties concerning that portion of TEC's site located west of SR 37.

14. Water Use and Conservation Reporting

TEC shall supply water use quantities, methods of water conservation, and estimates of water conservation if available, on an annual basis to Polk County (Planning and Water Resources Divisions).

15. Septic Tank Use

TEC shall comply with all provisions of Rule 64E-6 as applicable to septic tank systems.

[Chapter 64E-6, F.A.C.]

B. Transmission Lines

TEC shall apply to Polk County for a modification to CUP 92-05 at the time it submits a supplement to or modification of its site certification application to the state regarding

SECTION B: SPECIFIC CONDITIONS

a defined, proposed corridor route for any new, proposed transmission lines associated with the TEC Polk Power Station site, other than those detailed in the CUP application.

C. Sinkhole Response Plan

TEC shall develop and submit to Polk County for approval six (6) months prior to commencing operation of the first commercial unit, a plan detailing the emergency measures to be implemented if a sinkhole occurs on the TEC site. TEC shall include a plan to address any necessary remedial actions required as a result of contamination to impacted aquifer(s) and surface water(s) if a sinkhole occurs on the TEC site.

D. Landscape Buffer

Landscaping shall be installed in accordance with the landscape plan included in the Site Certification Application.

E. Tall Structure Compliance

TEC shall, at the time it proposes to construct any structure over 500 feet in height at its site, comply with all regulations as imposed by the Polk County Airport Zoning Ordinance, prior to completion of building construction code compliance review for the units requiring such a structure.

F. Inspection and Permit Compliance Fees

Polk County shall be allowed to inspect any and all construction, operating, monitoring, sampling, and remediation activities which TEC conducts on site. Polk County shall provide notice to TEC prior to performing any such inspection. TEC shall be required to pay Polk County all generally applicable building code compliance and inspection fees provided, however, that such fees shall be adjusted to reasonably reflect actual cost to the county.

G. Flood Protection

TEC during construction and operation shall maintain adequate flood protection berms to assure that residential properties will not receive floodwaters in the event of a berm failure. TEC shall perform and provide to Polk County an analysis of berm failure flood conditions including alternatives for minimizing obstruction and damage to roadways.

H. Reporting

TEC shall submit all reports and submissions to the Director of the Polk County Community Services Department in addition to the other departments as noted in the preceding conditions.

I. Fishing Lake

1. TEC shall construct the recreational fishing lakes on the parcel west of SR 37 as proposed in the 1996, submissions to the DEP. The ungraded "nesting islands" in the fishing lakes shall be planted with native trees as recommended by the Fish and Wildlife Conservation Commission.

2. TEC shall donate the 1,511 acres of land in Tract B west of State Road (SR) 37 and an associated \$200,000 start-up fund to the Board of Trustees Internal Improvement Trust via established state lands donation procedures by December 31, 2011

SECTION B: SPECIFIC CONDITIONS

VIII. HILLSBOROUGH COUNTY

Placement of natural gas pipeline facilities in Hillsborough County to serve future Polk Power Station units will require modification of this certification or submittal of a supplemental certification application.

History

Issued 01/27/94; signed by Governor Chiles

Modified (A) 02/22/95; signed by Secretary Wetherell

Modified (B) 08/16/00; signed by Deputy Secretary Green

Modified (C) 01/03/01; signed by Deputy Secretary Green

Modified (D) 11/15/01; signed by Deputy Secretary Bedwell

Modified (E) 05/07/03; signed by Siting Administrator Oven

Modified (F) 11/05/03; signed by Siting Administrator Oven

Modified (G) 08/26/04; signed by Siting Administrator Oven

Modified (H) 06/26/06; signed by Siting Administrator Oven

Modified (I) 08/15/06; signed by Siting Administrator Oven

Modified (J) 02/29/08; signed by Siting Administrator Halpin

Modified (K) 10/06/08; signed by Siting Administrator Halpin

Modified (L) 12/11/09; signed by Siting Administrator Halpin

Modified (M) 10/31/11, signed by Siting Administrator Mulkey

Modified (N) 09/05/12, signed by Siting Administrator Mulkey

APPENDIX 10.6.2

EXISTING NPDES PERMIT (FL0043869)



Florida Department of Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Charlie Crist
Governor

Jeff Kottkamp
Lt. Governor

Michael W. Sole
Secretary

RECEIVED

APR 01 2009

**Environmental, Health
& Safety**

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

In the Matter of an
Application for Permit by:

Mr. Stanley M. Kroh
Manager, Land & Water Programs, Environmental,
Health & Safety
Tampa Electric Company
P.O. Box 111
Tampa, FL 33601

PA File No. FL0043869-007-IW1S
Polk County
Polk Power Station
NPDES Permit No. FL0043869

NOTICE OF PERMIT ISSUANCE

Enclosed is Permit Number FL0043869 issued under Section 403.0885, Florida Statutes, and DEP Rule 62-620, Florida Administrative Code, authorizing discharge of cooling pond water which discharges to an unnamed reclaimed lake to an unnamed canal to Little Payne Creek, a Class III fresh water, from the TEC Polk Power Station located at State Road 37 & County Road 630, Mulberry, Florida 33860 in Polk County. The facility consists of five electric generating units (Units 1, 2, 3, 4 and 5). The wastewater streams from unit operations are routed to an on-site cooling pond before discharging through Outfall D-001 to Little Payne Creek. The permit authorizes a thermal mixing zone under Rule 62-302.520(6).

Monitoring requirements under this permit are effective on the first day of the second month following permit issuance. Until such time, the permittee shall continue to monitor and report in accordance with previously effective permit requirements, if any.

Any party to this order (permit) has the right to seek judicial review of the permit under Section 120.68, Florida Statutes, by the filing of a Notice of Appeal under Rules 9.110 and 9.190, Florida Rules of Appellate Procedure, with the Clerk of the Department of Environmental Protection, Office of General Counsel, Mail Station 35, 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000 and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate district court of appeal. The notice of appeal must be filed within thirty days after this notice is filed with the clerk of the Department.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

Janet G. Llewellyn
Director

Division of Water Resource Management
2600 Blair Stone Road
Tallahassee, FL 32399-2400
(850) 245-8336

FACILITY: Polk Power Station
PERMITTEE: Tampa Electric Company

PA File No.: FL0043869-007-IW1S

FILING AND ACKNOWLEDGMENT

FILED, on this date, under Section 120.52, Florida Statutes, with the designated deputy clerk, receipt of which is hereby acknowledged.

Shirley Shields 03-30-09
Clerk Date

CERTIFICATE OF SERVICE

The undersigned hereby certifies that this NOTICE OF PERMIT and all copies were mailed before the close of business on 03-30-09 to the listed persons.

Shirley Shields
Name

03-30-09
Date

Copies furnished by certified mail to:

Chief, NPDES Permitting Section, EPA Region 4, Atlanta, GA
Chairman, Board of Polk County Commissioners

Copies furnished by intradepartmental mail to:

Mike Halpin, DEP Tallahassee
Justin Wolfe, Esq., DEP Tallahassee
Yanisa Angulo, P.E., DEP Tampa
Jeff Greenwell, P.E., DEP Tampa

**STATE OF FLORIDA
INDUSTRIAL WASTEWATER FACILITY PERMIT**

PERMITTEE:

Tampa Electric Company
P.O. Box 111
Tampa, FL 33601

PERMIT NUMBER:

FL0043869 (Major)

PA FILE NUMBER:

FL0043869-007-IW1S

ISSUANCE DATE:

March 31, 2009

EXPIRATION DATE:

March 30, 2014

RESPONSIBLE AUTHORITY:

Mr. Stanley M. Kroh
Land, Water and Stewardship Programs Manager

FACILITY:

Polk Power Station
9995 State Road 37, South
Mulberry, Florida 33860
Polk County

Latitude: 27° 43' 40" N Longitude: 81° 58' 22" W

This permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.) and applicable rules of the Florida Administrative Code (F.A.C.), and constitutes authorization to discharge to waters of the state under the National Pollutant Discharge Elimination System (NPDES). The above named permittee is hereby authorized to operate the facilities shown on the application and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

The facility is an electric generating plant with a total nominal generating capacity of approximately 920 megawatts (MW). The existing generating facility consists of five electrical generating units (Units 1, 2, 3, 4 and 5). Unit 1 is an integrated solid fuel gasification combined cycle unit, General Electric Model Number 7F, with a nominal net capacity of 260 MW. Unit 1 is capable of using a variety of solid fuels, such as 100 percent coal, 100 percent petroleum coke, and various coal/petroleum coke blends in between, as well as No.2 fuel oil as a backup fuel. Units 2 and 3 are two dual-fuel simple-cycle combustion turbine generators, General Electric PG7241FA, each with a nominal generating capacity of 165 MW. Units 4 and 5 consist of two simple-cycle combustion turbine generators, General Electric PG7241FA, each with a nominal generating capacity of 165 MW, which utilize fin-fan closed-loop cooling systems. Units 4 and 5 were placed into operation in 2007.

WASTEWATER TREATMENT:

The facility uses a recirculating cooling pond for heat dissipation with makeup from ground water and continuous discharge to Little Payne Creek via the unnamed reclaimed lake. The cooling reservoir, which has a capacity of approximately 3.5 billion gallons, receives treated effluent from an on-site Industrial Wastewater Treatment (IWT) system, precipitation, groundwater seepage, low-volume wastewater (reject water from the Reverse Osmosis Unit, boiler blowdown, and laboratory wastes), washdown from the materials storage areas, groundwater from the Floridan aquifer (make-up), stormwater run-off from the diversion box, and recirculated cooling water.

The IWT system treats the slag pile leachate and treated water from the oily water separator. The IWT includes the following basins and units: oil/water separator, dissolved air flotation tank, equalization basin, slag runoff retention basins, and sand filter. All oil-bearing equipment is segregated using curbed areas with drains directing wash water,

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stormwater runoff, minor leaks, and spills to the oil/water separator. Low volume wastes (boiler blowdown, laboratory wastes, and RO concentrate) are directed to the diversion box. Sand filter backwash water from the IWT system treatment is filtered and directed to the diversion box.

Effluent from the cooling pond is mixed and aerated in a sulfuric acid mixing sump, then monitored in a pH monitoring sump prior to discharge via Outfall D-001 to the unnamed reclaimed lake.

The metal cleaning wastes associated with the combustion turbine and compressor washing will be routed to the equalization basin for subsequent filtration treatment. Spent chemicals and metal cleaning wastes not associated with the wash operations will be disposed off site by a licensed contractor.

Stormwater runoff associated with industrial activity is collected around the plant, receives treatment via detention pond, and is discharged through Outfall D-002 into an old mine cut to the unnamed reclaimed lake. Stormwater within containment areas may be diverted to the oil-water separator thence discharged through I-004. Slag leachate collected from the slag pile is sent to either of the two double lined slag leachate ponds, then filtered prior to discharge via outfall I-004.

EFFLUENT DISPOSAL:**Surface Water Discharge:**

An existing 3.10 MGD annual average daily flow of cooling reservoir blowdown through Outfall D-001 to an unnamed reclaimed lake, which is a Class III fresh water, thence to an unnamed ditch, thence to Little Payne Creek (WBIDs 1757A and 1757B). The Outfall D-001 point of discharge is located approximately at latitude 27° 43' 40" N, longitude 81° 58' 20" W.

An existing discharge of stormwater associated with industrial activity through Outfall D-002 to an unnamed old mine cut to an unnamed reclaimed lake, which is a Class III fresh water, thence to Little Payne Creek. The Outfall D-002 point of discharge is located approximately at latitude 27° 44' 00" N, longitude 81° 59' 10" W.

Internal Outfalls:

This permit authorizes discharges from existing internal outfalls I-003 and I-004 to the cooling reservoir.

IN ACCORDANCE WITH: The limitations, monitoring requirements and other conditions as set forth in Part I through Part VIII on pages 3 through 26 of this permit.

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I. Effluent Limitations and Monitoring Requirements
A. Surface Water Discharges

1. During the period beginning on the issuance date and lasting through the expiration date of this permit, the permittee is authorized to discharge recirculating cooling water, groundwater make-up, inward groundwater seepage, IGCC/CC/CT area runoff, precipitation, industrial wastewater treatment system effluent, stormwater runoff, low volume wastewater, and material storage area washdown from **Outfall D-001, COOLING RESERVOIR BLOWDOWN**. Such discharge shall be limited and monitored by the permittee as specified below:

Parameters (units)	Discharge Limitations			Monitoring Requirements		
	Monthly Average	Daily Maximum	Other	Monitoring Frequency	Sample Type	Sample Point
Flow (MGD) ¹	Report	Report	3.1 Annual Average Daily Flow	Continuous	Recorder or Calculation	FLW-1
Temperature, Water (DEG.F)	92.0 ²	Report (See Condition I.A.8)	--	Continuous	Recorder	EFF-1
	88.7 ³					
Temperature, Water, Ambient (DEG.F)	Report (See Condition I.A.8)	--	--	Continuous	Recorder	SWA-1
(ΔT)Temp. Diff. between Outfall and Ambient Monitoring Location (DEG.F)	--	Report (See Condition I.A.8)	4.7 Daily Average	Continuous	Calculated	EFF-1 SWA-1
pH (SU) ⁴	--	8.5	6.0 Daily Minimum	Continuous	Recorder	EFF-1

¹ Recording flow meters and totalizers shall be calibrated at least annually.

² These limits apply May through October.

³ These limits apply November through April.

⁴ pH monitoring equipment shall be regularly calibrated and maintained in accordance with the manufacturer's instructions. The permittee shall collect pH data in accordance with the Department's standard operating procedure titled "DEP-SOP-001/01 FT 1100 Field Measurement of Hydrogen Ion Activity (pH)" located at <http://www.dep.state.fl.us/labs/qa/sops.htm>.

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Parameters (units)	Discharge Limitations			Monitoring Requirements		
	Monthly Average	Daily Maximum	Other	Monitoring Frequency	Sample Type	Sample Point
Length of Longest pH Excursion (MINUTES)	--	--	60 Maximum Individual Excursion (See Condition I.A.17) 446 Monthly Total (See Condition I.A.17)	Continuous	Recorder	EFF-1
pH (SU) ⁴	--	Report (See Condition I.A.6)	--	Per Occurrence	Grab	EFF-1
Phosphorus, Total (as P) (MG/L)	Report	Report	--	Monthly	Grab	EFF-1
Temperature, Water (DEG.C)	Report (See Condition I.A.6)	Report (See Condition I.A.6)	--	Monthly	Grab	EFF-1
Nitrogen, Ammonia, Total (as N) (MG/L)	0.58	0.58	--	Monthly	Grab	EFF-1
Ammonia, Unionized (as NH ₃) (MG/L)	0.02 (See Condition I.A.6)	0.02 (See Condition I.A.6)	--	Monthly	Calculated	EFF-1
Nitrogen, Nitrate (as N) (MG/L)	Report	Report	--	Monthly	Grab	EFF-1
Nitrogen, Nitrite (as N) (MG/L)	Report	Report	--	Monthly	Grab	EFF-1
Nitrogen, Kjeldahl, Total (as N) (MG/L)	Report	Report	--	Monthly	Grab	EFF-1
Nitrogen, Total (MG/L)	2.93 ⁵ (See Condition I.E.15)	2.93 ⁵ (See Condition I.E.15)	--	Monthly	Grab	EFF-1

⁵ Ambient water quality limit established from the 1991 preconstruction monitoring for Conditions of Certification PA 92-32 under the Power Plant Siting Act.

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Parameters (units)	Discharge Limitations			Monitoring Requirements		
	Monthly Average	Daily Maximum	Other	Monitoring Frequency	Sample Type	Sample Point
Oxygen, Dissolved (DO) (MG/L)	--	--	5.0 Daily Minimum (See Condition I.A.5)	2 days/week	Grab	EFF-1
Oil and Grease (MG/L)	5.0	5.0	--	Monthly	Grab	EFF-1
Sulfate, Total (MG/L)	Report	Report	--	Monthly	Grab	EFF-1
Solids, Total Suspended (MG/L)	30.0	100.0	--	Monthly	Grab	EFF-1
Chlorine, Total Residual (MG/L)	0.01	0.01	--	Monthly	Grab	EFF-1
Antimony, Total Recoverable (MG/L)	Report	4.30	--	Semiannually	Grab	EFF-1
Arsenic, Total Recoverable (UG/L)	Report	50	--	Semiannually	Grab	EFF-1
Beryllium, Total Recoverable (UG/L)	Report	Report	0.13 Annual ⁶ Average	Semiannually	Grab	EFF-1
Cadmium, Total Recoverable (UG/L)	See Condition I.A.3.	See Condition I.A.3.	--	Semiannually	Grab	EFF-1
Copper, Total Recoverable (UG/L)	Report	See Condition I.A.3.	--	Semiannually	Grab	EFF-1
Zinc, Total Recoverable (UG/L)	Report	See Condition I.A.3.	--	Semiannually	Grab	EFF-1
Lead, Total Recoverable (UG/L)	Report	See Condition I.A.3.	--	Semiannually	Grab	EFF-1
Nickel, Total Recoverable (UG/L)	Report	See Condition I.A.3.	--	Semiannually	Grab	EFF-1

⁶ Annual average means the maximum concentration at average annual flow conditions measured and represented as a 12-month rolling average.

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Parameters (units)	Discharge Limitations			Monitoring Requirements		
	Monthly Average	Daily Maximum	Other	Monitoring Frequency	Sample Type	Sample Point
Selenium, Total Recoverable (UG/L)	5.0 ⁷	5.0 ⁷	—	Monthly	Grab	EFF-1
Silver, Total Recoverable (UG/L)	Report	0.07	--	Semiannually	Grab	EFF-1
Thallium, Total Recoverable (UG/L)	Report	6.3	—	Semiannually	Grab	EFF-1
Iron, Total Recoverable (MG/L)	Report	1.0	--	Semiannually	Grab	EFF-1
Specific Conductance (UMHO/CM)	Report	1275	—	Semiannually	Grab	EFF-1
Alpha, Gross Particle Activity (PCI/L)	15.0	15.0	--	Monthly	Grab	EFF-1
BOD, Carbonaceous 5 day, 20C (MG/L)	6.0	8.5	6.0 Annual Average ⁶	Monthly	Grab	EFF-1
Hardness, Total (as CaCO ₃) (MG/L)	Report	Report	—	Semiannually	Grab	EFF-1
Whole Effluent Toxicity	See Condition I.A.4.			Quarterly	Grab	EFF-1

2. Effluent samples shall be taken at the monitoring site locations listed in Permit Condition I.A.1 and as described below:

Sample Point	Description of Monitoring Location
FLW-1	Flow measured with bubbler water level sensor. Sensors connected to a data logger in central laboratory for integrated daily average flow calculations.
EFF-1	The nearest accessible point after final treatment, but prior to mixing with the receiving water (unnamed reclaimed lake).
SWA-1	Temperature monitoring sensor at the old mine cut, located upstream from the unnamed reclaimed lake.

⁷ Consent Order 07-0097 establishes an interim limitation of 10 ug/L for selenium, pursuant to the conditions of the order.

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3. This condition applies to calculation of limits for total recoverable cadmium, copper, lead, zinc and nickel monitored at D-001 calculated using the following equations:

$$\text{Cd} \leq e^{(0.7409[\ln H]-4.719)}$$

$$\text{Cu} \leq e^{(0.8545[\ln H]-1.702)}$$

$$\text{Pb} \leq e^{(1.273[\ln H]-4.705)}$$

$$\text{Zn} \leq e^{(0.8473[\ln H]+0.884)}$$

$$\text{Ni} \leq e^{(0.846[\ln H]+0.0584)}$$

Total hardness shall be measured at the time of the effluent sample. The "ln H" means the natural logarithm of total hardness expressed as milligrams/Liter (mg/L) of CaCO₃. This equation can only be applied for hardness in the range of 25 mg/L to 400 mg/L as CaCO₃. If the total hardness is below 25 mg/L, the permittee shall use 25 mg/L for total hardness in the equation and if the hardness is above 400 mg/L, the permittee shall use 400 mg/L for total hardness in the equation.

The measured effluent value shall be recorded on the DMR in the parameter rows for total recoverable cadmium, copper, lead, zinc, and nickel (effluent). The calculated effluent limit shall be recorded on the DMR in the parameter rows for total recoverable cadmium, copper, lead, zinc, and nickel (calculated limit). Compliance with the effluent limitation is determined by calculating the difference between the measured effluent value and the calculated effluent limit. The compliance value shall be recorded on the DMR in the parameter rows for total recoverable cadmium, copper, lead, zinc, and nickel (effluent minus calculated limit). If the compliance value is greater than 0.00, the permittee will be considered in violation of the limitation.

4. The permittee shall comply with the following requirements to evaluate whole effluent toxicity of the discharge from outfall D-001.
- a. Effluent Limitation
 - (1) Whole effluent chronic toxicity shall not exceed a No Observed Effect Concentration (NOEC) of less than 100% effluent in any test. [Rule 62-302.530(61), F.A.C.] The Department has revised its rules to substitute the IC25 for the NOEC in chronic tests. When EPA approves the change from NOEC, to IC25, the whole effluent chronic toxicity limit shall be as follows: Whole effluent chronic toxicity shall not exceed a 25 percent inhibition concentration (IC25) of less than 100% effluent in any test. [Rules 62-302.530(61) and 62-4.241(1)(b), F.A.C.] The Department will send written notice when the IC25 limit goes into effect.
 - (2) Whole effluent acute toxicity shall not exceed a 96 hour LC50 of less than 100% effluent in any test. [Rules 62-302.500(1)(a)4. and 62-4.241(1)(a), F.A.C.]
 - b. Monitoring Frequency
 - (1) "Routine" toxicity tests shall be conducted *once every three months*, the first starting within 90 days and lasting for the duration of this permit.
 - (2) Upon completion of four consecutive, valid "routine" tests that demonstrate compliance with the effluent limitation in 4.a.(1) above, the permittee may submit a written request to the Department for a reduction in monitoring frequency to once every six months. The request shall include a summary of the data and the complete bioassay reports for each test used to demonstrate compliance. The Department shall act on the request within 45 days of receipt. Reductions in monitoring shall only become effective upon the Department's written confirmation that the facility has completed four consecutive valid routine tests that demonstrate compliance with the effluent limitation in 4.a.(1) above.

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- (3) If a test within the sequence of the four is deemed invalid based on the acceptance criteria in EPA-821-R-02-013, but is replaced by a repeat valid test initiated within 21 days after the last day of the invalid test, the invalid test will not be counted against the requirement for four consecutive valid tests for the purpose of evaluating the reduction of monitoring frequency.
- c. Sampling Requirements
- (1) For each routine test or additional follow-up test conducted, a total of three *24-hour composite* samples of final effluent shall be collected and used in accordance with the sampling protocol discussed in EPA-821-R-02-013, Section 8.
 - (2) The first sample shall be used to initiate the test. The remaining two samples shall be collected according to the protocol and used as renewal solutions on Day 3 (48 hours) and Day 5 (96 hours) of the test.
- d. Test Requirements
- (1) Routine Tests: All routine tests shall be conducted using a control (0% effluent) and a minimum of five test dilutions: 100%, 50%, 25%, 12.5%, and 6.25% final effluent.
 - (2) The permittee shall conduct a daphnid, *Ceriodaphnia dubia*, Survival and Reproduction Test and a fathead minnow, *Pimephales promelas*, Larval Survival and Growth Test, concurrently.
 - (3) All test species, procedures and quality assurance criteria used shall be in accordance with Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, 4th ed., EPA-821-R-02-013. Any deviation of the bioassay procedures outlined herein shall be submitted in writing to the Department for review and approval prior to use. In the event the above method is revised, the permittee shall conduct chronic toxicity testing in accordance with the revised method.
 - (4) The control water and dilution water used shall be moderately hard water as described in EPA-821-R-02-013, Section 7.
- e. Quality Assurance Requirements
- (1) A standard reference toxicant (SRT) quality assurance (QA) chronic toxicity test shall be conducted with each species used in the required toxicity tests either concurrently or started no more than 30 days before the date of each routine or additional follow-up test conducted. The SRT-QA data shall be included in the reports for each companion routine or additional follow-up test required.
 - (2) If the mortality in the control (0% effluent) exceeds 20% for either species in any test or does not meet "test acceptability criteria", the test for that species (including the control) shall be invalidated and the test repeated. Test acceptability criteria for each species are defined in EPA-821-R-02-013, Section 13.12 (*Ceriodaphnia dubia*) and Section 11.11 (*Pimephales promelas*). The repeat test shall begin within 21 days after the last day of the invalid test.
 - (3) If, during any bioassay, 100% mortality occurs in the 100% effluent concentration prior to the end of the bioassay and the control mortality is less than 20% at that time, that bioassay (including the control) shall be terminated with the conclusion that the test fails and constitutes non-compliance.
 - (4) Additional follow-up tests shall be evaluated for acceptability based on the observed dose-response relationship as required by EPA-821-R-02-013, Section 10.2.6 and the evaluation shall be included with the bioassay reports.
- f. Reporting Requirements
- (1) Results from all required tests shall be reported on the Discharge Monitoring Report (DMR) as follows:
 - (a) Routine and Additional Follow-up Test Results: The calculated NOEC for each test species shall be entered on the DMR. If the NOEC is greater than 100% effluent, enter "> 100%".
 - (2) A bioassay laboratory report for each routine test shall be prepared according to EPA-821-R-02-013, Section 10, Report Preparation and Test Review, and mailed to the Department at the address below within 30 days after the last day of the test.

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- (3) For additional follow-up tests, a single laboratory report shall be prepared according to EPA-821-R-02-013, Section 10, and mailed within 30 days after the last day of the second valid additional follow-up test.
- (4) Data for invalid tests shall be included in the bioassay report for the repeat test.
- (5) All bioassay reports shall be sent to:

Florida Department of Environmental Protection
Southwest District Office
13051 N. Telecom Parkway
Temple Terrace, Florida 33637

g. Test Failures

- (1) A test fails when the test results do not meet the limits in 4.a.(1).
 - (2) Additional Follow-up Tests:
 - (a) If a routine test does not meet the chronic toxicity limitation in 4.a.(1) above, the permittee shall notify the Department at the address above within 21 days after the last day of the failed routine test and conduct two additional follow-up tests on each species that failed the test in accordance with 4.d.
 - (b) The first test shall be initiated within 28 days of the last day of the failed routine test. The remaining additional follow-up tests shall be conducted weekly thereafter until a total of two valid additional follow-up tests are completed.
 - (c) The first additional follow-up test shall be conducted using a control (0% effluent) and a minimum of five dilutions: 100%, 50%, 25%, 12.5%, 6.25% effluent. The permittee may modify the dilution series in the second additional follow-up test to more accurately bracket the toxicity such that at least two dilutions above and two dilutions below the target concentration and a control (0% effluent) are run. All test results shall be statistically analyzed according to the Appendices in EPA-821-R-02-013.
 - (3) In the event of three valid test failures (whether routine or additional follow-up tests) within a 12-month period, the permittee shall notify the Department within 21 days after the last day of the third test failure.
 - (a) The permittee shall submit a plan for correction of the effluent toxicity within 60 days after the last day of the third test failure.
 - (b) The Department shall review and approve the plan before initiation.
 - (c) The plan shall be initiated within 30 days following the Department's written approval of the plan.
 - (d) Progress reports shall be submitted quarterly to the Department at the address above.
 - (e) During the implementation of the plan, the permittee shall conduct quarterly "routine" whole effluent toxicity tests in accordance with 4.d. Additional follow-up tests are not required while the plan is in progress. Following completion or termination of the plan, the frequency of monitoring for routine and additional follow-up tests shall return to the schedule established in 4.b.(1). If a routine test is invalid according to the acceptance criteria in EPA-821-R-02-013, a repeat test shall be initiated within 21 days after the last day of the invalid routine test.
 - (f) Upon completion of four consecutive, valid "routine" tests that demonstrate compliance with the effluent limitation in 4.a.(1) above, the permittee may submit a written request to the Department to terminate the plan. The plan shall be terminated upon written verification by the Department that the facility has passed at least four consecutive valid routine whole effluent toxicity tests.
- If a test within the sequence of the four is deemed invalid, but is replaced by a repeat valid test initiated within 21 days after the last day of the invalid test, the invalid test will not be counted against the requirement for four consecutive valid tests for the purpose of terminating the plan.

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- (4) The Department may reopen the permit to require acute definitive whole effluent toxicity testing if mortality exceeds 50% in the 100% effluent sample before or at 96 hours from the start of the chronic test.
 - (5) The additional follow-up testing and the plan do not preclude the Department taking enforcement action for acute or chronic whole effluent toxicity permit limit violations.
5. The daily minimum concentration for dissolved oxygen shall not be less than 5.0 mg/L. The time and depth for sampling dissolved oxygen shall be specified and recorded. Dissolved oxygen monitoring shall occur after sunrise and before 12:00 p.m., whenever possible.
 6. Effluent samples for pH and temperature (grab) shall be taken simultaneously with each total ammonia grab sample. Un-ionized ammonia shall be calculated in accordance with the procedure provided by the Department (refer to the website www.dep.state.fl.us/labs/library/index.htm). All measured values for pH, temperature, and total ammonia used to calculate an un-ionized ammonia value shall be reported as an attachment to the Discharge Monitoring Report (DMR). All calculated un-ionized ammonia values shall be reported on the attachment. The daily maximum value for un-ionized ammonia for each reporting period shall be reported on the DMR.
 7. During plant operation, necessary measures shall be used to settle, filter, treat or absorb silt containing or pollutant-laden storm water runoff to limit the suspended solids to 50.0 mg/L or less at Outfalls D-001 and D-002 during rainfall periods less than the 25-year, 24-hour rainfall event. As a minimum, control measures shall include filters, sediment traps, barriers, berms or vegetative planting. Exposed or disturbed soil shall be protected as soon as possible to minimize silt and sediment-laden runoff.
 8. The temperature at the edge of the mixing zone shall not exceed the limitations of Rule 62-302.520(4)(a), F.A.C. The mixing zone shall be a 380-foot radius semicircle centered at the point of entry into the unnamed reclaimed lake. The above-mentioned mixing zone boundary limit is defined based on ΔT (the calculated difference between the effluent daily average and the ambient daily average water temperature) not to exceed 4.7°F.

Within six months after the permit issuance date, the permittee shall install a continuous temperature monitoring sensor at the old mine cut, which is located upstream from the unnamed reclaimed lake, to determine the ambient water temperature. Following installation, the permittee shall report the maximum daily ΔT on the monthly DMR. The permittee shall submit a report to the Department in accordance with the schedule in Permit Condition VI.3. after 12 months of monitoring under this permit to evaluate and verify mixing zone performance within the unnamed reclaimed lake. If appropriate, the permit may be revised via a permit revision.

9. During the period beginning on the issuance date and lasting through the expiration date of this permit, the permittee is authorized to discharge reverse osmosis reject water, boiler blowdown, and lab waste from **Internal Outfall I-003, LOW VOLUME WASTE**, to the cooling reservoir. Such discharge shall be limited and monitored by the permittee as specified below:

Parameters (units)	Discharge Limitations			Monitoring Requirements		
	Monthly Average	Daily Maximum	Other	Monitoring Frequency	Sample Type	Sample Point
Flow (MGD)	Report	Report	--	Monthly	Calculated	FLW-2
Solids, Total Suspended (MG/L)	30.0	100.0	—	Monthly	Grab	OUI-1

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Parameters (units)	Discharge Limitations			Monitoring Requirements		
	Monthly Average	Daily Maximum	Other	Monitoring Frequency	Sample Type	Sample Point
Oil and Grease (MG/L)	15.0	20.0	--	Monthly	Grab	OUI-1
Selenium, Total Recoverable (UG/L)	Report	Report	--	Monthly	Grab	OUI-1

10. Effluent samples shall be taken at the monitoring site locations listed in Permit Condition I.A.9 and as described below:

Sample Point	Description of Monitoring Location
FLW-2	Flow measured continuously at overflow weir using an ultrasonic depth sensor.
OUI-1	The nearest accessible point after final treatment, but prior to entering the cooling reservoir.

11. During the period beginning on the issuance date and lasting through the expiration date of this permit, the permittee is authorized to discharge oily water waste effluent, slag pile leachate, and metal cleaning wastewater (MCW) from Internal Outfall I-004, **EQUALIZATION BASIN WASTEWATER**, to the cooling reservoir. Such discharge shall be limited and monitored by the permittee as specified below:

Parameters (units)	Discharge Limitations			Monitoring Requirements		
	Monthly Average	Daily Maximum	Other	Monitoring Frequency	Sample Type	Sample Point
Flow (MGD)	Report	Report	--	Monthly	Calculated	FLW-3
Solids, Total Suspended (MG/L)	30.0	100.0	--	Monthly	Grab	OUI-2
Oil and Grease (MG/L)	15.0	20.0	--	Monthly	Grab	OUI-2
Copper, Total Recoverable (MG/L)	1.0	1.0	--	Once Per Occurrence, When discharging MCW		
Iron, Total Recoverable (MG/L)	1.0	1.0	--	Once Per Occurrence, When Discharging MCW		
pH (SU)	--	9.0	6.0 Daily Minimum	Monthly	Grab	OUI-2
Selenium, Total Recoverable (UG/L)	Report	Report	--	Monthly	Grab	OUI-2

12. Effluent samples shall be taken at the monitoring site locations listed in Permit Condition I.A.11 and as described below:

Sample Point	Description of Monitoring Location
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Sample Point	Description of Monitoring Location
FLW-3	Overflow to sump; sump level controls sump pump operation. Pump time and flow rate used to calculate daily flows.
OUI-2	The nearest accessible point after final treatment, but prior to entering the cooling reservoir.

13. During the period beginning on the issuance date and lasting through the expiration date of this permit, the permittee is authorized to discharge stormwater runoff associated with industrial activity from Outfall D-002, **STORMWATER RUNOFF**. Such discharge shall be limited and monitored by the permittee as specified below:

Parameters (units)	Discharge Limitations			Monitoring Requirements		
	Monthly Average	Daily Maximum	Daily Minimum	Monitoring Frequency	Sample Type	Sample Point
Flow (MGD)	Report	Report	--	Weekly	Calculated	FLW-4
BOD, Carbonaceous 5 day, 20C (MG/L)	12.0	Report	--	Weekly	Grab	EFF-2
Solids, Total Suspended (MG/L)	Report	50.0	--	Weekly	Grab	EFF-2
Oil and Grease (MG/L)	Report	5.0	--	Weekly	Grab	EFF-2
pH (SU)	--	8.5	6.0	Weekly	Grab	EFF-2

14. Effluent samples shall be taken at the monitoring site locations listed in Permit Condition I.A.13 and as described below:

Sample Point	Description of Monitoring Location
FLW-4	Flow measured at the three discharge culverts using bubbler water level sensors. Sensors connected to a data logger in central laboratory for integrated daily average flow calculations.
EFF-2	The nearest accessible point after final treatment, but prior to mixing with the receiving water (unnamed reclaimed lake).

15. There shall be no discharge of floating solids or visible foam in other than trace amounts.
16. The discharge shall not cause a visible sheen on the receiving water.
17. On outfalls where pH is monitored continuously, the permittee shall maintain the pH of such wastewater within the range specified in this permit. Excursions from the range are permitted subject to the following limitations:
- The total time during which pH values are outside the required range of pH values shall not exceed 7 hours and 26 minutes in a calendar month.
 - No individual excursion from the range of pH values shall exceed 60 minutes.
 - The permittee shall report each month for each monitoring station where pH is monitored continuously the following:
 - the number of pH excursions;
 - the duration of each excursion;
 - the date of each excursion; and

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(4) the total time of all excursions combined.

- d. An excursion is an unintentional and temporary incident in which the pH value of wastewater exceeds the range specified in this permit.

B. Underground Injection Control Systems

This section is not applicable to this facility.

C. Land Application Systems

This section is not applicable to this facility.

D. Other Methods of Disposal or Recycling

1. There shall be no discharge of industrial wastewater from this facility to ground or surface waters, except as authorized by this permit.

E. Other Limitations and Monitoring and Reporting Requirements

1. The sample collection, analytical test methods and method detection limits (MDLs) applicable to this permit shall be in accordance with Rule 62-4.246 and Chapter 62-160, F.A.C., and 40 CFR 136, as appropriate. The list of Department established analytical methods, and corresponding MDLs (method detection limits) and PQLs (practical quantification limits), which is titled "Florida Department of Environmental Protection Table as Required By Rule 62-4.246(4) Testing Methods for Discharges to Surface Water" is available at <http://www.dep.state.fl.us/labs/library/index.htm>. The MDLs and PQLs as described in this list shall constitute the minimum acceptable MDL/PQL values and the Department shall not accept results for which the laboratory's MDLs or PQLs are greater than those described above unless alternate MDLs and/or PQLs have been specifically approved by the Department for this permit. Any method included in the list may be used for reporting as long as it meets the following requirements:
- a. The laboratory's reported MDL and PQL values for the particular method must be equal or less than the corresponding method values specified in the Department's approved MDL and PQL list;
 - b. The laboratory reported MDL for the specific parameter is less than or equal to the permit limit or the applicable water quality criteria, if any, stated in Chapter 62-302, F.A.C. Parameters that are listed as "report only" in the permit shall use methods that provide a MDL, which is equal to or less than the applicable water quality criteria stated in 62-302, F.A.C.; and
 - c. If the MDLs for all methods available in the approved list are above the stated permit limit or applicable water quality criteria for that parameter, then the method with the lowest stated MDL shall be used.

When the analytical results are below method detection or practical quantification limits, the permittee shall report the actual laboratory MDL and/or PQL values for the analyses that were performed following the instructions on the applicable discharge monitoring report.

Where necessary, the permittee may request approval of alternate methods or for alternative MDLs or PQLs for any approved analytical method. Approval of alternate laboratory MDLs and PQLs are not necessary if the laboratory reported MDLs and PQLs are less than or equal to the permit limit or the applicable water quality criteria, if any, stated in Chapter 62-302, F.A.C. Approval of an analytical method not included in the above-referenced list is not necessary if the analytical method is in accordance with 40 CFR 136.

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2. Parameters which must be monitored as a result of a surface water discharge shall be analyzed using a sufficiently sensitive method to assure compliance with applicable water quality standards and effluent limitations in accordance with 40 CFR Part 136. All monitoring shall be representative of the monitored activity.
3. Monitoring requirements under this permit are effective on the first day of the second month following permit issuance. Until such time, the permittee shall continue to monitor and report in accordance with previously effective permit requirements, if any. During the period of operation authorized by this permit, the permittee shall complete and submit to the Southwest District Office Discharge Monitoring Reports (DMRs) in accordance with the frequencies specified by the REPORT type (i.e., monthly, toxicity, quarterly, semiannual, annual, etc.) indicated on the DMR forms attached to this permit. Monitoring results for each monitoring period shall be submitted in accordance with the associated DMR due dates below.

REPORT Type on DMR	Monitoring Period	DMR Due Date
Monthly or Toxicity	first day of month – last day of month	28 th day of following month
Quarterly	January 1 - March 31 April 1 – June 30 July 1 – September 30 October 1 – December 31	April 28 July 28 October 28 January 28
Semiannual	January 1 – June 30 July 1 – December 31	July 28 January 28
Annual	January 1 – December 31	January 28

DMRs shall be submitted for each required monitoring period including months of no discharge.

The permittee shall make copies of the attached DMR form(s) and shall submit the completed DMR form(s) to the Department at the address specified below:

Florida Department of Environmental Protection
Wastewater Compliance Evaluation Section, Mail Station 3551
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

4. Unless specified otherwise in this permit, all reports and notifications required by this permit, including twenty-four hour notifications, shall be submitted to or reported to the Southwest District Office at the address specified below:
Southwest District Office
13051 N. Telecom Parkway
Temple Terrace, FL 33637
Phone Number - (813) 632-7600
FAX Number - (813) 632-7665 (All FAX copies shall be followed by original copies.)
5. All reports and other information shall be signed in accordance with requirements of Rule 62-620.305, F.A.C.
6. The permittee shall provide safe access points for obtaining representative samples which are required by this permit.
7. If there is no discharge from the facility on a day scheduled for sampling, the sample shall be collected on the day of the next discharge.

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8. The permittee shall report all visible discharges of floating materials, such as ash or oil sheen, to the Department when submitting DMRs. Field data sheets shall have appropriate blank(s) to report observations.
9. There shall be no discharge of polychlorinated biphenyl compounds such as those commonly used for transformer fluid.
10. Discharge of any product registered under the Federal Insecticide, Fungicide, and Rodenticide Act to any waste stream which ultimately may be released to lakes, rivers, or other waters of the State is prohibited unless specifically authorized elsewhere in this permit. This requirement is not applicable to products used for lawn and agricultural purposes or to the use of herbicides if used in accordance with labeled instructions and any applicable State permit.

A permit revision from the Department shall be required prior to the use of any biocide or chemical additive used in the cooling system or any other portion of the treatment system which may be toxic to aquatic life. The permit revision request shall include:

- a. Name and general composition of biocide or chemical
- b. Frequencies of use
- c. Quantities to be used
- d. Proposed effluent concentrations
- e. Acute and/or chronic toxicity data (laboratory reports shall be prepared according to Section 12 of EPA document no. EPA/600/4-90/027 entitled, Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters for Freshwater and Marine Organisms, or most current addition.)
- f. Product data sheet
- g. Product label

The Department shall review the above information to determine if a major or minor permit revision is necessary. Discharge associated with the use of such biocide or chemical is not authorized without a permit revision by the Department. Permit revisions shall be processed in accordance with the requirements of Chapter 62-620, F.A.C.

11. Discharge of any waste resulting from the combustion of toxic, hazardous, or metal cleaning wastes to any waste stream which ultimately discharges to waters of the State is prohibited, unless specifically authorized elsewhere in this permit.
12. The permittee shall not store coal, soil, or other similar erodable materials in a manner in which runoff is uncontrolled, or conduct construction activities in a manner which produces uncontrolled runoff.
13. Unless otherwise specifically permitted in this permit, there shall be no point source discharges of any wastes to waters of the State, or to any waste stream which enters such waters. The permittee shall operate and maintain loading and unloading facilities in such a manner in order to preclude spillage of coal, chemicals, etc., used at the facility, and shall take all actions necessary to clean-up and control any such spill which may occur.
14. Any water drained from the fuel oil storage tanks or other water which meets the definition of "Petroleum Contact Water" as defined in F.A.C. Rule 62-740.030(1) shall be disposed at a Department approved facility in accordance with F.A.C. Chapter 62-740.
15. If the Total Nitrogen concentration at Outfall D-001 exceeds 2.93 mg/L twice in a six-month period, the permittee shall initiate a Level II Water Quality Based Effluent Limitation (WQBEL) Study for the discharge from Outfall D-001. The study shall be conducted in accordance with the requirements of Chapter 62-650, F.A.C. The permittee shall submit a draft plan of study to the Department within three (3) months of notification by the Department that a study is necessary, and shall modify the plan of study as necessary to obtain Department approval. The final plan of study shall include a schedule for the submittal of:

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- a. an Intensive Survey document summarizing all data collected;
 - b. a WQBEL document summarizing all modeling conducted and proposed effluent limitations. The draft Intensive Survey document shall be provided within one year of the original plan of study submittal and the draft WQBEL document shall be provided within one and a half years of the original plan of study submittal.
16. The permittee is authorized to discharge storm water from the diked petroleum storage or handling areas, provided the following conditions are met:
- Such discharges shall be limited and monitored by the permittee as specified below:
- (1.) The facility shall have a valid Spill Prevention Control and Countermeasure (SPCC) plan pursuant to 40 CFR Part 112.
 - (2.) In draining the diked area, a portable oil skimmer or similar device or absorbent material shall be used to remove oil and grease (as indicated by the presence of a sheen) immediately prior to draining.
 - (3.) Monitoring records shall be maintained in the form of a log and shall contain the following information, as a minimum.
 - a. date and time of discharge;
 - b. Estimated volume of discharge;
 - c. Initials of the person making visual inspection and authorizing discharge; and
 - d. Observed conditions of the storm water discharged.
 - (4.) There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil sheen at any time.

II. Industrial Sludge Management Requirements

1. Management of sludges generated by the treatment of industrial wastewater at this facility is disposal at a Class I solid waste landfill.
2. The permittee shall be responsible for proper treatment, management, use or land application of its sludges.
3. Disposal of sludge in a solid waste management facility permitted by the Department shall be in accordance with the requirements of Chapter 62-701, F.A.C. Storage, transportation, and disposal of sludge/solids characterized as hazardous waste shall be in compliance with requirements of Chapter 62-730, F.A.C.
4. The permittee shall keep records of the amount of sludge disposed, transported, or incinerated. If a person other than the permittee is responsible for sludge transporting, disposal, or incineration, the permittee shall also keep the following records:
 - a. name, address and telephone number of any transporter, and any manifests or bill of lading used;
 - b. name and location of the site of disposal, treatment or incineration;
 - c. name, address, and telephone number of the entity responsible for the disposal, treatment, or incineration site.

III. Ground Water Monitoring Requirements

1. Groundwater monitoring requirements for this facility are covered under the Power Plant Siting Act (PPSA) through Conditions of Certification PA 92-32.

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IV. Other Land Application Requirements

This section is not applicable to this facility.

V. Operation and Maintenance Requirements**A. Treatment and Disposal Facilities**

1. The permittee shall ensure that the operation of this facility is as described in the application and supporting documents.
2. The operation of the pollution control facilities described in this permit shall be under the supervision of a person who is qualified by formal training and/or practical experience in the field of water pollution control.

B. Record keeping Requirements:

1. The permittee shall maintain the following records on the site of the permitted facility and make them available for inspection:
 - a. Records of all compliance monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, including, if applicable, a copy of the laboratory certification showing the certification number of the laboratory, for at least three years from the date the sample or measurement was taken;
 - b. Copies of all reports, other than those required in items a. and f. of this section, required by the permit for at least three years from the date the report was prepared, unless otherwise specified by Department rule;
 - c. Records of all data, including reports and documents used to complete the application for the permit for at least three years from the date the application was filed, unless otherwise specified by Department rule;
 - d. A copy of the current permit;
 - e. A copy of any required record drawings;
 - f. Copies of the logs and schedules showing plant operations and equipment maintenance for three years from the date on the logs or schedule.

VI. Schedules

1. The permittee shall achieve compliance with the conditions of this permit as follows:

Action Item		Scheduled Completion Date
1	Operational level attained	Issuance Date of Permit.
2	Continue implementing existing best management practices pollution prevention (BMP3) Plan (see Permit Condition VII.D.	Issuance Date of Permit.
3	Continuous pH monitoring installation	Within Two Months of Permit Issuance Date
4	Temperature sensor installation	See Permit Condition I.A.8.
5	Mixing zone report	See Permit Conditions I.A.8 and VI.3.

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2. No later than 14 calendar days following a date identified in the above schedule(s) of compliance, the permittee shall submit either a report of progress or, in the case of specific actions being required by an identified date, a written notice of compliance or noncompliance. In the latter case, the notice shall include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirement.
3. The permittee shall submit a mixing zone report within 60 days after completion of one year of data collection in accordance with Permit Condition I.A.8 to re-evaluate the current mixing zone. If appropriate, the permit shall be revised via a permit revision.

VII. Other Specific Conditions

A. Specific Conditions Applicable to All Permits

1. Drawings, plans, documents or specifications submitted by the permittee, not attached hereto, but retained on file at the Bob Martinez Center in the Industrial Wastewater Section, are made a part hereof.
2. Where required by Chapter 471 (P.E.) or Chapter 492 (P.G.) F.S., applicable portions of reports to be submitted under this permit, shall be signed and sealed by the professional(s) who prepared them.
3. This permit satisfies Industrial Wastewater program permitting requirements only and does not authorize operation of this facility prior to obtaining any other permits required by local, state or federal agencies.
4. The permittee shall provide verbal notice to the Department as soon as practical after discovery of a sinkhole within an area for the management or application of wastewater or sludge. The permittee shall immediately implement measures appropriate to control the entry of contaminants, and shall detail these measures to the Department in a written report within 7 days of the sinkhole discovery.

B. Specific Conditions Related to Construction

This section is not applicable to this facility.

C. Duty to Reapply

- 1 The permittee shall apply for renewal of this permit at least 180 days before the expiration date of the permit using the appropriate forms listed in Rule 62-620.910, F.A.C., including submittal of the appropriate processing fee set forth in Rule 62-4.050, F.A.C. The existing permit shall not expire until the Department has taken final action on the application renewal in accordance with the provisions of 62-620.335(3) and (4), F.A.C.

D. Specific Conditions Related to Best Management Practices/Pollution Prevention Conditions

1. General Conditions

In accordance with Section 304(e) and 402(a)(2) of the Clean Water Act (CWA) as amended, 33 U.S.C. §§ 1251 et seq., and the Pollution Prevention Act of 1990, 42 U.S.C. §§ 13101-13109, the permittee must develop and implement a plan for utilizing practices incorporating pollution prevention measures. References to be considered in developing the plan are "Criteria and Standards for Best Management Practices Authorized Under Section 304(e) of the Act," found at 40 CFR 122.44 Subpart K and the Waste Minimization Opportunity Assessment Manual, EPA/625/7-88/003.

a. Definitions

- (1) The term "pollutants" refers to conventional, non-conventional and toxic pollutants.

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- (2) Conventional pollutants are: biochemical oxygen demand (BOD), suspended solids, pH, fecal coliform bacteria and oil & grease.
- (3) Non-conventional pollutants are those which are not defined as conventional or toxic.
- (4) Toxic pollutants include, but are not limited to: (a) any toxic substance listed in Section 307(a)(1) of the CWA, any hazardous substance listed in Section 311 of the CWA, or chemical listed in Section 313(c) of the Superfund Amendments and Reauthorization Act of 1986; and (b) any substance (that is not also a conventional or non-conventional pollutant except ammonia) for which EPA has published an acute or chronic toxicity criterion.
- (5) "Pollution prevention" and "waste minimization" refer to the first two categories of EPA's preferred hazardous waste management strategy: first, source reduction and then, recycling.
- (6) "Recycle/Reuse" is defined as the minimization of waste generation by recovering and reprocessing usable products that might otherwise become waste; or the reuse or reprocessing of usable waste products in place of the original stock, or for other purposes such as material recovery, material regeneration or energy production.
- (7) "Source reduction" means any practice which: (a) reduces the amount of any pollutant entering a waste stream or otherwise released into the environment (including fugitive emissions) prior to recycling, treatment or disposal; and (b) reduce the hazards to public health and the environment associated with the release of such pollutant. The term includes equipment or technology modifications, process or procedure modifications, reformulation or redesign of products, substitution of raw materials, and improvements in housekeeping, maintenance, training, or inventory control. It does not include any practice which alters the physical, chemical, or biological characteristics or the volume of a pollutant through a process or activity which itself is not integral to, or previously considered necessary for, the production of a product or the providing of a service.
- (8) "BMP3" means a Best Management Plan incorporating the requirements of 40 CFR § 122.44, Subpart K, plus pollution prevention techniques associated with a Waste Minimization Assessment.
- (9) "Waste Minimization Assessment" means a systematic planned procedure with the objective of identifying ways to reduce or eliminate waste.

2. Best Management Practices/Pollution Prevention Plan

The permittee shall develop and implement a BMP3 plan for the facility, which is the source of wastewater and storm water discharges, covered by this permit. The plan shall be directed toward reducing those pollutants of concern which discharge to surface waters and shall be prepared in accordance with good engineering and good housekeeping practices. For the purposes of this permit, pollutants of concern shall be limited to toxic pollutants, as defined above, known to the discharger. The plan shall address all activities which could or do contribute these pollutants to the surface water discharge, including process, treatment, and ancillary activities. The BMP3 plan shall contain the following components:

a. Signatory Authority & Management Responsibilities

The BMP3 plan shall be signed by permittee or their duly authorized representative in accordance with rule 62-620.305(2)(a) and (b). The BMP3 plan shall be reviewed by plant environmental/engineering staff and plant manager. Where required by Chapter 471-(P.E.) or Chapter 492 (P.G.) Florida Statutes, applicable portions of the BMP3 plan shall be signed and sealed by the professional(s) who prepared them.

A copy of the plan shall be retained at the facility and shall be made available to the permit issuing authority upon request.

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The BMP3 plan shall contain a written statement from corporate or plant management indicating management's commitment to the goals of the BMP3 program. Such statements shall be publicized or made known to all facility employees. Management shall also provide training for the individuals responsible for implementing the BMP3 plan.

b. BMP3 Plan Requirements

- (1) Name & description of facility, a map illustrating the location of the facility & adjacent receiving waters, and other maps, plot plans or drawings, as necessary;
- (2) Overall objectives (both short-term and long-term) and scope of the plan, specific reduction goals for pollutants, anticipated dates of achievement of reduction, and a description of means for achieving each reduction goal;
- (3) A description of procedures relative to spill prevention, control & countermeasures and a description of measures employed to prevent storm water contamination;
- (4) A description of practices involving preventive maintenance, housekeeping, recordkeeping, inspections, and plant security; and
- (5) The description of a waste minimization assessment performed in accordance with the conditions outlined in condition c below, results of the assessment, and a schedule for implementation of specific waste reduction practices.

c. Waste Minimization Assessment

The permittee is encouraged but not required to conduct a waste minimization assessment (WMA) for this facility to determine actions that could be taken to reduce waste loading and chemical losses to all wastewater and/or storm water streams as described in Part VII.D.2 of this permit.

- If the permittee elects to develop and implement a WMA, information on plan components can be obtained from the Department's Industrial Wastewater website, or from:

Florida Department of Environmental Protection
Industrial Wastewater Section, Mail Station 3545
2600 Blair Stone Road
Tallahassee, Florida 32399-2400
(850) 245-8589
(850) 245-8669 – Fax

d. Best Management Practices & Pollution Prevention Committee Recommended:

A Best Management Practices Committee (Committee) should be established to direct or assist in the implementation of the BMP3 plan. The Committee should be comprised of individuals within the plant organization who are responsible for developing the BMP3 plan and assisting the plant manager in its implementation, monitoring of success, and revision. The activities and responsibilities of the Committee should address all aspects of the facility's BMP3 plan. The scope of responsibilities of the Committee should be described in the plan.

e. Employee Training

Employee training programs shall inform personnel at all levels of responsibility of the components & goals of the BMP3 plan and shall describe employee responsibilities for implementing the plan. Training shall address topics such as good housekeeping, materials management, record keeping & reporting, spill prevention & response, as well as specific waste reduction practices to be employed. Training should also disclose how individual employees may contribute suggestions concerning the BMP3 plan or suggestions regarding Pollution Prevention. The plan shall identify periodic dates for such training.

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f. Plan Development & Implementation

The BMP3 plan shall be developed and implemented 6 months after the effective date of this permit, unless any later dates are specified in this permit. Any portion of the WMA which is ongoing at the time of development or implementation shall be described in the plan. Any waste reduction practice which is recommended for implementation over a period of time shall be identified in the plan, including a schedule for its implementation.

g. Submission of Plan Summary & Progress/Update Reports

- (1) Plan Summary: Not later than 2 years after the effective date of the permit, a summary of the BMP3 plan shall be developed and maintained at the facility and made available to the permit issuing authority upon request. The summary should include the following: a brief description of the plan, its implementation process, schedules for implementing identified waste reduction practices, and a list of all waste reduction practices being employed at the facility. The results of waste minimization assessment studies already completed as well as any scheduled or ongoing WMA studies shall be discussed.
- (2) Progress/Update Reports: Annually thereafter for the duration of the permit progress/update reports documenting implementation of the plan shall be maintained at the facility and made available to the permit issuing authority upon request. The reports shall discuss whether or not implementation schedules were met and revise any schedules, as necessary. The plan shall also be updated as necessary and the attainment or progress made toward specific pollutant reduction targets documented. Results of any ongoing WMA studies as well as any additional schedules for implementation of waste reduction practices shall be included.

(3) A recommended timetable for the various plan requirements follows:

Timetable for BMP3 Plan:

<u>ELEMENT</u>	<u>TIME FROM EFFECTIVE DATE OF THIS PERMIT</u>
Complete WMA (if appropriate)	6 months
Progress/Update Reports	3 years, and then annually thereafter

The permittee shall maintain the plan and subsequent reports at the facility and shall make the plan available to the Department upon request.

h. Plan Review & Modification

If following review by the Department, the BMP3 plan is determined insufficient, the permittee will be notified that the BMP3 plan does not meet one or more of the minimum requirements of this Part. Upon such notification from the Department, the permittee shall amend the plan and shall submit to the Department a written certification that the requested changes have been made. Unless otherwise provided by the Department, the permittee shall have 30 days after such notification to make the changes necessary.

The permittee shall modify the BMP3 plan whenever there is a change in design, construction, operation, or maintenance, which has a significant effect on the potential for the discharge of pollutants to waters of the State or if the plan proves to be ineffective in achieving the general objectives of reducing pollutants in wastewater or storm water discharges. Modifications to the plan may be reviewed by the Department in the same manner as described above.

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E. Specific Conditions Related to Existing Manufacturing, Commercial, Mining, and Silviculture Wastewater Facilities or Activities

1. Existing manufacturing, commercial, mining, and silvicultural wastewater facilities or activities that discharge into surface waters shall notify the Department as soon as they know or have reason to believe:
 - a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following levels
 - (1) One hundred micrograms per liter,
 - (2) Two hundred micrograms per liter for acrolein and acrylonitrile; five hundred micrograms per liter for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter for antimony, or
 - (3) Five times the maximum concentration value reported for that pollutant in the permit application.
 - b. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following levels
 - (1) Five hundred micrograms per liter,
 - (2) One milligram per liter for antimony, or
 - (3) Ten times the maximum concentration value reported for that pollutant in the permit application.

F. Reopener Clause

1. The permit shall be revised, or alternatively, revoked and reissued in accordance with the provisions contained in Rules 62-620.325 and 62-620.345, F.A.C., if applicable, or to comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2) and 307(a)(2) of the Clean Water Act (the Act), as amended, if the effluent standards, limitations, or water quality standards so issued or approved:
 - a. contains different conditions or is otherwise more stringent than any condition in the permit/or;
 - b. controls any pollutant not addressed in the permit.

The permit as revised or reissued under this paragraph shall also contain any other requirements of the Act then applicable.

2. The permit may be reopened to adjust effluent limitations or monitoring requirements should future Water Quality Based Effluent Limitation determinations, water quality studies, DEP approved changes in water quality standards, or other information show a need for a different limitation or monitoring requirement.
3. The Department or USEPA may develop a Total Maximum Daily Load (TMDL) during the life of the permit. Once a TMDL has been established and adopted by rule, the Department shall revise this permit to incorporate the final findings of the TMDL.

VIII. General Conditions

1. The terms, conditions, requirements, limitations and restrictions set forth in this permit are binding and enforceable pursuant to Chapter 403, F.S. Any permit noncompliance constitutes a violation of Chapter 403, F.S., and is grounds for enforcement action, permit termination, permit revocation and reissuance, or permit revision. [62-620.610(1), F.A.C.]
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications or

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conditions of this permit constitutes grounds for revocation and enforcement action by the Department. [62-620.610(2), F.A.C.]

3. As provided in subsection 403.087(7), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor authorize any infringements of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit or authorization that may be required for other aspects of the total project which are not addressed in this permit. [62-620.610(3), F.A.C.]
4. This permit conveys no title to land or water, does not constitute state recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title. [62-620.610(4), F.A.C.]
5. This permit does not relieve the permittee from liability and penalties for harm or injury to human health or welfare, animal or plant life, or property caused by the construction or operation of this permitted source; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department. The permittee shall take all reasonable steps to minimize or prevent any discharge, reuse of reclaimed water, or residuals use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. [62-620.610(5), F.A.C.]
6. If the permittee wishes to continue an activity regulated by this permit after its expiration date, the permittee shall apply for and obtain a new permit. [62-620.610(6), F.A.C.]
7. The permittee shall at all times properly operate and maintain the facility and systems of treatment and control, and related appurtenances, that are installed and used by the permittee to achieve compliance with the conditions of this permit. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to maintain or achieve compliance with the conditions of the permit. [62-620.610(7), F.A.C.]
8. This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit revision, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. [62-620.610(8), F.A.C.]
9. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, including an authorized representative of the Department and authorized EPA personnel, when applicable, upon presentation of credentials or other documents as may be required by law, and at reasonable times, depending upon the nature of the concern being investigated, to
 - a. Enter upon the permittee's premises where a regulated facility, system, or activity is located or conducted, or where records shall be kept under the conditions of this permit;
 - b. Have access to and copy any records that shall be kept under the conditions of this permit;
 - c. Inspect the facilities, equipment, practices, or operations regulated or required under this permit; and
 - d. Sample or monitor any substances or parameters at any location necessary to assure compliance with this permit or Department rules.
 [62-620.610(9), F.A.C.]
10. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data, and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except as such use is proscribed by Section 403.111, Florida Statutes, or Rule 62-620.302, F.A.C. Such evidence shall only be used to the extent that it is consistent with the Florida Rules of Civil Procedure and applicable evidentiary rules. [62-620.610(10), F.A.C.]

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11. When requested by the Department, the permittee shall within a reasonable time provide any information required by law which is needed to determine whether there is cause for revising, revoking and reissuing, or terminating this permit, or to determine compliance with the permit. The permittee shall also provide to the Department upon request copies of records required by this permit to be kept. If the permittee becomes aware of relevant facts that were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be promptly submitted or corrections promptly reported to the Department. *[62-620.610(11), F.A.C.]*
12. Unless specifically stated otherwise in Department rules, the permittee, in accepting this permit, agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided however, the permittee does not waive any other rights granted by Florida Statutes or Department rules. A reasonable time for compliance with a new or amended surface water quality standard, other than those standards addressed in Rule 62-302.500, F.A.C., shall include a reasonable time to obtain or be denied a mixing zone for the new or amended standard. *[62-620.610(12), F.A.C.]*
13. The permittee, in accepting this permit, agrees to pay the applicable regulatory program and surveillance fee in accordance with Rule 62-4.052, F.A.C. *[62-620.610(13), F.A.C.]*
14. This permit is transferable only upon Department approval in accordance with Rule 62-620.340, F.A.C. The permittee shall be liable for any noncompliance of the permitted activity until the Department approves the transfer. *[62-620.610(14), F.A.C.]*
15. The permittee shall give the Department written notice at least 60 days before inactivation or abandonment of a wastewater facility and shall specify what steps will be taken to safeguard public health and safety during and following inactivation or abandonment. *[62-620.610(15), F.A.C.]*
16. The permittee shall apply for a revision to the Department permit in accordance with Rule 62-620.300, F.A.C., and the Department of Environmental Protection Guide to Wastewater Permitting at least 90 days before construction of any planned substantial modifications to the permitted facility is to commence or with Rule 62-620.325(2), F.A.C., for minor modifications to the permitted facility. A revised permit shall be obtained before construction begins except as provided in Rule 62-620.300, F.A.C. *[62-620.610(16), F.A.C.]*
17. The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. The permittee shall be responsible for any and all damages which may result from the changes and may be subject to enforcement action by the Department for penalties or revocation of this permit. The notice shall include the following information:
 - a. A description of the anticipated noncompliance;
 - b. The period of the anticipated noncompliance, including dates and times; and
 - c. Steps being taken to prevent future occurrence of the noncompliance.*[62-620.610(17), F.A.C.]*
18. Sampling and monitoring data shall be collected and analyzed in accordance with Rule 62-4.246, Chapters 62-160 and 62-601, F.A.C., and 40 CFR 136, as appropriate.
 - a. Monitoring results shall be reported at the intervals specified elsewhere in this permit and shall be reported on a Discharge Monitoring Report (DMR), DEP Form 62-620.910(10), or as specified elsewhere in the permit.
 - b. If the permittee monitors any contaminate more frequently than required by the permit, using Department approved test procedures, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR.
 - c. Calculations for all limitations which require averaging of measurements shall use an arithmetic mean unless otherwise specified in this permit.

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- d. Except as specifically provided in Rule 62-160.300, F.A.C., any laboratory test required by this permit shall be performed by a laboratory that has been certified by the Department of Health Environmental Laboratory Certification Program (DOH ELCP). Such certification shall be for the matrix, test method and analyte(s) being measured to comply with this permit. For domestic wastewater facilities, testing for parameters listed in Rule 62-160.300(4), F.A.C., shall be conducted under the direction of a certified operator.
 - e. Field activities including on-site tests and sample collection shall follow the applicable standard operating procedures described in DEP-SOP-001/01 adopted by reference in Chapter 62-160, F.A.C.
 - f. Alternate field procedures and laboratory methods may be used where they have been approved in accordance with Rules 62-160.220 and 62-160.330, F.A.C.
[62-620.610(18), F.A.C.]
19. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule detailed elsewhere in this permit shall be submitted no later than 14 days following each schedule date. *[62-620.610(19), F.A.C.]*
20. The permittee shall report to the Department's Southwest District Office any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within five days of the time the permittee becomes aware of the circumstances. The written submission shall contain: a description of the noncompliance and its cause; the period of noncompliance including exact dates and time, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.
- a. The following shall be included as information which must be reported within 24 hours under this condition:
 - (1) Any unanticipated bypass which causes any reclaimed water or effluent to exceed any permit limitation or results in an unpermitted discharge,
 - (2) Any upset which causes any reclaimed water or the effluent to exceed any limitation in the permit,
 - (3) Violation of a maximum daily discharge limitation for any of the pollutants specifically listed in the permit for such notice, and
 - (4) Any unauthorized discharge to surface or ground waters.
 - b. Oral reports as required by this subsection shall be provided as follows:
 - (1) For unauthorized releases or spills of untreated or treated wastewater reported pursuant to subparagraph a.(4) that are in excess of 1,000 gallons per incident, or where information indicates that public health or the environment will be endangered, oral reports shall be provided to the Department by calling the STATE WARNING POINT TOLL FREE NUMBER (800) 320-0519, as soon as practical, but no later than 24 hours from the time the permittee becomes aware of the discharge. The permittee, to the extent known, shall provide the following information to the State Warning Point:
 - (a) Name, address, and telephone number of person reporting;
 - (b) Name, address, and telephone number of permittee or responsible person for the discharge;
 - (c) Date and time of the discharge and status of discharge (ongoing or ceased);
 - (d) Characteristics of the wastewater spilled or released (untreated or treated, industrial or domestic wastewater);
 - (e) Estimated amount of the discharge;
 - (f) Location or address of the discharge;
 - (g) Source and cause of the discharge;
 - (h) Whether the discharge was contained on-site, and cleanup actions taken to date;
 - (i) Description of area affected by the discharge, including name of water body affected, if any; and
 - (j) Other persons or agencies contacted.
 - (2) Oral reports, not otherwise required to be provided pursuant to subparagraph b.(1) above, shall be provided to Department's Southwest District Office within 24 hours from the time the permittee becomes aware of the circumstances.

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- c. If the oral report has been received within 24 hours, the noncompliance has been corrected, and the noncompliance did not endanger health or the environment, the Department's Southwest District Office shall waive the written report.
[62-620.610(20), F.A.C.]
21. The permittee shall report all instances of noncompliance not reported under Conditions VIII.17., 18. and 19. of this permit at the time monitoring reports are submitted. This report shall contain the same information required by Condition VIII.20. of this permit. *[62-620.610(21), F.A.C.]*
22. Bypass Provisions.
- a. Bypass is prohibited, and the Department may take enforcement action against a permittee for bypass, unless the permittee affirmatively demonstrates that:
- (1) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; and
 - (2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance; and
 - (3) The permittee submitted notices as required under Condition VIII.22.b. of this permit.
- b. If the permittee knows in advance of the need for a bypass, it shall submit prior notice to the Department, if possible at least 10 days before the date of the bypass. The permittee shall submit notice of an unanticipated bypass within 24 hours of learning about the bypass as required in Condition VIII.20. of this permit. A notice shall include a description of the bypass and its cause; the period of the bypass, including exact dates and times; if the bypass has not been corrected, the anticipated time it is expected to continue; and the steps taken or planned to reduce, eliminate, and prevent recurrence of the bypass.
- c. The Department shall approve an anticipated bypass, after considering its adverse effect, if the permittee demonstrates that it will meet the three conditions listed in Condition VIII.22 a.(1) through (3) of this permit.
- d. A permittee may allow any bypass to occur which does not cause reclaimed water or effluent limitations to be exceeded if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provision of Condition VIII.22.a. through c. of this permit.
[62-620.610(22), F.A.C.]
23. Upset Provisions
- a. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed contemporaneous operating logs, or other relevant evidence that:
- (1) An upset occurred and that the permittee can identify the cause(s) of the upset;
 - (2) The permitted facility was at the time being properly operated;
 - (3) The permittee submitted notice of the upset as required in Condition VIII.20. of this permit; and
 - (4) The permittee complied with any remedial measures required under Condition VIII.5. of this permit.
- b. In any enforcement proceeding, the burden of proof for establishing the occurrence of an upset rests with the permittee.
- c. Before an enforcement proceeding is instituted, no representation made during the Department review of a claim that noncompliance was caused by an upset is final agency action subject to judicial review.
[62-620.610(23), F.A.C.]

PERMITTEE:

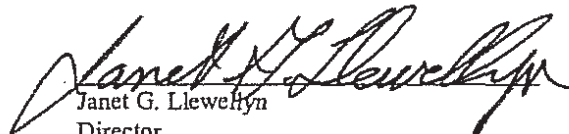
Tampa Electric Company
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Tampa, FL 33601

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Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION



Janet G. Lewellyn
Director
Division of Water Resource Management
2600 Blair Stone Road
Tallahassee, Florida 32399-2400
(850) 245-8336

DEPARTMENT OF ENVIRONMENTAL PROTECTION DISCHARGE MONITORING REPORT - PART A DRAFT

When Completed mail this report to: Department of Environmental Protection, Wastewater Compliance Evaluation Section, MS 3551, 2600 Blair Stone Road, Tallahassee, FL 32399-2400

PERMITTEE NAME: Tampa Electric Company
MAILING ADDRESS: P.O. Box 111
Tampa, FL 33601

PERMIT NUMBER: FL0043869-007-1W1S

LIMIT:
CLASS SIZE:

Final
Major

REPORT: Monthly
GROUP: Industrial

FACILITY: Polk Power Station
LOCATION: State Road 37 & County Road 630
Mulberry, FL 33860

MONITORING GROUP NUMBER: D-001
MONITORING GROUP DESC: cooling reservoir blowdown

COUNTY: Polk

NO DISCHARGE FROM SITE: ☐
MONITORING PERIOD From: _____ To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration		Units	No. Ex.	Frequency of Analysis	Sample Type
Flow	Sample Measurement									
PARM Code 50050 I Mon. Site No. FLW-1	Permit Requirement	Report (Mo.Avg.)	Report (Day.Max.)	MGD					Continuous	Recorder or Calculation
Flow	Sample Measurement									
PARM Code 50050 P Mon. Site No. FLW-1	Permit Requirement	3.1 (AADF)		MGD					Continuous	Recorder or Calculation
Temperature (F), Water (May - October)	Sample Measurement									
PARM Code 00011 I Mon. Site No. EFF-1	Permit Requirement				92.0 (Day.Avg.)	Report See I.A.8 (Day.Max.)	DEG.F		Continuous	Recorder
Temperature (F), Water (November - April)	Sample Measurement									
PARM Code 00011 P Mon. Site No. EFF-1	Permit Requirement				88.7 (Day.Avg.)	Report See I.A.8 (Day.Max.)	DEG.F		Continuous	Recorder
Temperature (C), Water	Sample Measurement									
PARM Code 00010 I Mon. Site No. EFF-1	Permit Requirement				Report See I.A.6 (Mo.Avg.)	Report See I.A.6 (Day.Max.)	DEG.C		Monthly	Grab
Temperature (F), Water	Sample Measurement									
PARM Code 00011 Q Mon. Site No. SWA-1	Permit Requirement				Report See I.A.8 (Mo.Avg.)		DEG.F		Continuous	Recorder
Temp. Diff. between Sample and Upstrm Deg. F	Sample Measurement									
PARM Code 00018 I Mon. Site No. EFF-1, SWA-1	Permit Requirement				4.7 (Day.Avg.)	Report See I.A.8 (Day.Max.)	DEG.F		Continuous	Calculated

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

NAME/TITLE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE NO	DATE (YY/MM/DD)

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here):

DISCHARGE MONITORING REPORT - PART A DRAFT (Continued)

FACILITY: Polk Power Station

MONITORING GROUP NUMBER: D-001

PERMIT NUMBER: FL0043869-007-IW1S

MONITORING PERIOD From: _____ To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration		Units	No. Ex.	Frequency of Analysis	Sample Type
pH	Sample Measurement									
PARM Code 00400 I Mon. Site No. EFF-1	Permit Requirement				6.0 (Day,Min.)	8.5 (Day,Max.)	SU		Continuous	Grab
pH	Sample Measurement									
PARM Code 00400 P Mon. Site No. EFF-1	Permit Requirement					Report See I.A.6 (Day,Max.)	SU		Per Occurrence	Grab
Phosphorus, Total (as P)	Sample Measurement									
PARM Code 00665 I Mon. Site No. EFF-1	Permit Requirement				Report (Mo.Avg.)	Report (Day,Max.)	MG/L		Monthly	Grab
Nitrogen, Ammonia, Total (as N)	Sample Measurement									
PARM Code 00610 I Mon. Site No. EFF-1	Permit Requirement				0.58 (Mo.Avg.)	0.58 (Day,Max.)	MG/L		Monthly	Grab
Ammonia, Unionized (as NH3)	Sample Measurement									
PARM Code 00619 I Mon. Site No. EFF-1	Permit Requirement				0.02 See I.A.6 (Mo.Avg.)	0.02 See I.A.6 (Day,Max.)	MG/L		Monthly	Calculated
Nitrogen, Nitrate, Total (as N)	Sample Measurement									
PARM Code 00620 I Mon. Site No. EFF-1	Permit Requirement				Report (Mo.Avg.)	Report (Day,Max.)	MG/L		Monthly	Grab
Nitrogen, Nitrite, Total (as N)	Sample Measurement									
PARM Code 00615 I Mon. Site No. EFF-1	Permit Requirement				Report (Mo.Avg.)	Report (Day,Max.)	MG/L		Monthly	Grab
Nitrogen, Kjeldahl, Total (as N)	Sample Measurement									
PARM Code 00625 I Mon. Site No. EFF-1	Permit Requirement				Report (Mo.Avg.)	Report (Day,Max.)	MG/L		Monthly	Grab
Nitrogen, Total ¹	Sample Measurement									
PARM Code 00600 I Mon. Site No. EFF-1	Permit Requirement				2.93 See I.E.15 (Mo.Avg.)	2.93 See I.E.15 (Day,Max.)	MG/L		Monthly	Grab
Oxygen, Dissolved (DO)	Sample Measurement									
PARM Code 00300 I Mon. Site No. EFF-1	Permit Requirement				5.0 See I.A.5 (Day,Min.)		MG/L		2 days/week	Grab
Oil and Grease	Sample Measurement									
PARM Code 00556 I Mon. Site No. EFF-1	Permit Requirement				5.0 (Mo.Avg.)	5.0 (Day,Max.)	MG/L		Monthly	Grab

¹ Ambient water quality limit established from the 1991 preconstruction monitoring for Conditions of Certification PA 92-32 under the Power Plant Siting Act.

DISCHARGE MONITORING REPORT - PART A DRAFT (Continued)

FACILITY: Polk Power Station

MONITORING GROUP NUMBER: D-001

PERMIT NUMBER: FL0043869-007-IW1S

MONITORING PERIOD From: _____ To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
Selenium, Total Recoverable ²	Sample Measurement										
PARM Code 00981 ¹ Mon. Site No. EFF-1	Permit Requirement				5.0 (Mo.Avg.)		5.0 (Day.Max.)	UG/L		Monthly	Grab
Sulfate, Total	Sample Measurement										
PARM Code 00945 ¹ Mon. Site No. EFF-1	Permit Requirement				Report (Mo.Avg.)		Report (Day.Max.)	MG/L		Monthly	Grab
Solids, Total Suspended	Sample Measurement										
PARM Code 00530 ¹ Mon. Site No. EFF-1	Permit Requirement					30.0 ³ (Day.Avg.)	100.0 (Day.Max.)	MG/L		Monthly	Grab
Chlorine, Total Residual	Sample Measurement										
PARM Code 50060 ¹ Mon. Site No. EFF-1	Permit Requirement				0.01 (Mo.Avg.)		0.01 (Day.Max.)	MG/L		Monthly	Grab
Alpha, Gross Particle Activity	Sample Measurement										
PARM Code 80045 ¹ Mon. Site No. EFF-1	Permit Requirement				15.0 (Mo.Avg.)		15.0 (Day.Max.)	PCI/L		Monthly	Grab
BOD, Carbonaceous 5 day, 20C	Sample Measurement										
PARM Code 80082 ¹ Mon. Site No. EFF-1	Permit Requirement				6.0 (Mo.Avg.)	6.0 ⁴ (Annual Avg.)	8.5 (Day.Max.)	MG/L		Monthly	Grab
Length of longest pH excursion	Sample Measurement										
PARM Code 72107 ¹ Mon. Site No. EFF-1	Permit Requirement	60 (Maximum)	446 (Monthly Total)	Minutes						Continuous	Recorder
	Sample Measurement										
	Permit Requirement										
	Sample Measurement										
	Permit Requirement										
	Sample Measurement										
	Permit Requirement										

² Consent Order 07-0097 establishes an interim limitation of 10 ug/L for selenium, pursuant to the conditions of the order.

³ Average of daily values for 30 consecutive days.

⁴ Annual average means the maximum concentration at average annual flow conditions measured and represented as a 12-month rolling average.

DEPARTMENT OF ENVIRONMENTAL PROTECTION DISCHARGE MONITORING REPORT - PART A DRAFT

When Completed mail this report to: Department of Environmental Protection, Wastewater Compliance Evaluation Section, MS 3551, 2600 Blair Stone Road, Tallahassee, FL 32399-2400

PERMITTEE NAME: Tampa Electric Company
MAILING ADDRESS: P.O. Box 111
Tampa, FL 33601

PERMIT NUMBER: FL0043869-007-IW1S

LIMIT: Final
CLASS SIZE: Major

REPORT: Semiannual
GROUP: Industrial

FACILITY: Polk Power Station
LOCATION: State Road 37 & County Road 630
Mulberry, FL 33860

MONITORING GROUP NUMBER: D-001
MONITORING GROUP DESC: cooling reservoir blowdown

COUNTY: Polk

NO DISCHARGE FROM SITE: ☐

MONITORING PERIOD From: _____ To: _____

Parameter		Quantity or Loading	Units	Quality or Concentration	Units	No. Ex.	Frequency of Analysis	Sample Type
Antimony, Total Recoverable	Sample Measurement							
PARM Code 01268 I Mon. Site No. EFF-1	Permit Requirement			Report (Mo.Avg.)	4.30 (Day.Max.)	MG/L	Semiannually	Grab
Arsenic, Total Recoverable	Sample Measurement							
PARM Code 00978 I Mon. Site No. EFF-1	Permit Requirement			Report (Mo.Avg.)	50 (Day.Max.)	UG/L	Semiannually	Grab
Beryllium, Total Recoverable	Sample Measurement							
PARM Code 00998 I Mon. Site No. EFF-1	Permit Requirement			Report (Mo.Avg.)	0.13 ⁵ (Annual Avg.)	UG/L	Semiannually	Grab
Cadmium, Total Recoverable (effluent)	Sample Measurement							
PARM Code 01113 I Mon. Site No. EFF-1	Permit Requirement			Report (Mo.Avg.)	Report See 1.A.3 (Day.Max.)	UG/L	Semiannually	Grab
Cadmium, Total Recoverable (calculated limit)	Sample Measurement							
PARM Code 01113 P Mon. Site No. EFF-1	Permit Requirement				Report (Day.Max.)	UG/L	Semiannually	Calculated
Cadmium, Total Recoverable (effluent minus calculated limit)	Sample Measurement							
PARM Code 01113 Q Mon. Site No. EFF-1	Permit Requirement				0.00 (Day.Max.)	UG/L	Semiannually	Calculated

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

NAME/TITLE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE NO	DATE (YY/MM/DD)

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here):

⁵ Annual average means the maximum concentration at average annual flow conditions measured and represented as a 12-month rolling average.

DISCHARGE MONITORING REPORT - PART A DRAFT (Continued)

FACILITY: Polk Power Station

MONITORING GROUP NUMBER: D-001

PERMIT NUMBER: FL0043869-007-IW1S

MONITORING PERIOD From: _____ To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
Copper, Total Recoverable (effluent)	Sample Measurement										
PARM Code 01119 I Mon. Site No. EFF-1	Permit Requirement				Report (Mo.Avg.)		Report See I.A.3 (Day.Max.)	UG/L		Semiannually	Grab
Copper, Total Recoverable (calculated limit)	Sample Measurement										
PARM Code 01119 P Mon. Site No. EFF-1	Permit Requirement						Report (Day.Max.)	UG/L		Semiannually	Calculated
Copper, Total Recoverable (effluent minus calculated limit)	Sample Measurement										
PARM Code 01119 Q Mon. Site No. EFF-1	Permit Requirement						0.00 (Day.Max.)	UG/L		Semiannually	Calculated
Zinc, Total Recoverable (effluent)	Sample Measurement										
PARM Code 01094 I Mon. Site No. EFF-1	Permit Requirement				Report (Mo.Avg.)		Report See I.A.3 (Day.Max.)	UG/L		Semiannually	Grab
Zinc, Total Recoverable (calculated limit)	Sample Measurement										
PARM Code 01094 P Mon. Site No. EFF-1	Permit Requirement						Report (Day.Max.)	UG/L		Semiannually	Calculated
Zinc, Total Recoverable (effluent minus calculated limit)	Sample Measurement										
PARM Code 01094 Q Mon. Site No. EFF-1	Permit Requirement						0.00 (Day.Max.)	UG/L		Semiannually	Calculated
Lead, Total Recoverable (effluent)	Sample Measurement										
PARM Code 01114 I Mon. Site No. EFF-1	Permit Requirement				Report (Mo.Avg.)		Report See I.A.3 (Day.Max.)	UG/L		Semiannually	Grab
Lead, Total Recoverable (calculated limit)	Sample Measurement										
PARM Code 01114 P Mon. Site No. EFF-1	Permit Requirement						Report (Day.Max.)	UG/L		Semiannually	Calculated
Lead, Total Recoverable (effluent minus calculated limit)	Sample Measurement										
PARM Code 01114 Q Mon. Site No. EFF-1	Permit Requirement						0.00 (Day.Max.)	UG/L		Semiannually	Calculated

DISCHARGE MONITORING REPORT - PART A DRAFT (Continued)

FACILITY: Polk Power Station

MONITORING GROUP NUMBER: D-001

PERMIT NUMBER: FL0043869-007-IW1S

MONITORING PERIOD From: _____ To: _____

Parameter		Quantity or Loading	Units	Quality or Concentration	Units	No. Ex.	Frequency of Analysis	Sample Type
Nickel, Total Recoverable (effluent)	Sample Measurement							
PARM Code 01074 I Mon. Site No. EFF-1	Permit Requirement			Report (Mo.Avg.)	Report See I-A.3 (Day.Max.)	UG/L	Semiannually	Grab
Nickel, Total Recoverable (calculated limit)	Sample Measurement							
PARM Code 01074 P Mon. Site No. EFF-1	Permit Requirement				Report (Day.Max.)	UG/L	Semiannually	Calculated
Nickel, Total Recoverable (effluent minus calculated limit)	Sample Measurement							
PARM Code 01074 Q Mon. Site No. EFF-1	Permit Requirement				0.00 (Day.Max.)	UG/L	Semiannually	Calculated
Silver, Total Recoverable	Sample Measurement							
PARM Code 01079 I Mon. Site No. EFF-1	Permit Requirement			Report (Mo.Avg.)	0.07 (Day.Max.)	UG/L	Semiannually	Grab
Thallium, Total Recoverable	Sample Measurement							
PARM Code 00982 I Mon. Site No. EFF-1	Permit Requirement			Report (Mo.Avg.)	6.3 (Day.Max.)	UG/L	Semiannually	Grab
Iron, Total Recoverable	Sample Measurement							
PARM Code 00980 I Mon. Site No. EFF-1	Permit Requirement			Report (Mo.Avg.)	1.0 (Day.Max.)	MG/L	Semiannually	Grab
Specific Conductance	Sample Measurement							
PARM Code 00095 I Mon. Site No. EFF-1	Permit Requirement			Report (Mo.Avg.)	1275.0 (Day.Max.)	UMHO/CM	Semiannually	Grab
Hardness, Total (as CaCO3)	Sample Measurement							
PARM Code 00900 I Mon. Site No. EFF-1	Permit Requirement			Report (Mo.Avg.)	Report (Day.Max.)	MG/L	Semiannually	Grab
	Sample Measurement							
	Permit Requirement							
	Sample Measurement							
	Permit Requirement							

DEPARTMENT OF ENVIRONMENTAL PROTECTION DISCHARGE MONITORING REPORT - PART A DRAFT

When Completed mail this report to: Department of Environmental Protection, Wastewater Compliance Evaluation Section, MS 3551, 2600 Blair Stone Road, Tallahassee, FL 32399-2400

PERMITTEE NAME: Tampa Electric Company
MAILING ADDRESS: P.O. Box 111
Tampa, FL 33601

PERMIT NUMBER: FL0043869-007-IW1S

LIMIT:
CLASS SIZE:

Final
Major

REPORT:
GROUP:

Toxicity
Industrial

FACILITY: Polk Power Station
LOCATION: State Road 37 & County Road 630
Mulberry, FL 33860

MONITORING GROUP NUMBER: D-001
MONITORING GROUP DESC: cooling reservoir blowdown

COUNTY: Polk

NO DISCHARGE FROM SITE: ☐

MONITORING PERIOD From: _____ To: _____

Parameter		Quantity or Loading	Units	Quality or Concentration	Units	No. Ex.	Frequency of Analysis	Sample Type
7-DAY CHRONIC STATRE Ceriodaphnia dubia(Routine)	Sample Measurement							
PARM Code TBP3B P Mon. Site No. EFF-1	Permit Requirement			100 (Min.)	PER-CENT		quarterly	24-hour composite
7-DAY CHRONIC STATRE Ceriodaphnia dubia(Additional)	Sample Measurement							
PARM Code TBP3B Q Mon. Site No. EFF-1	Permit Requirement			100 (Min.)	PER-CENT		As needed	As required by the permit
7-DAY CHRONIC STATRE Pimephales promelas(Routine)	Sample Measurement							
PARM Code TBP6C P Mon. Site No. EFF-1	Permit Requirement			100 (Min.)	PER-CENT		quarterly	24-hour composite
7-DAY CHRONIC STATRE Pimephales promelas(Additional)	Sample Measurement							
PARM Code TBP6C Q Mon. Site No. EFF-1	Permit Requirement			100 (Min.)	PER-CENT		As needed	As required by the permit
	Sample Measurement							
	Permit Requirement							
	Sample Measurement							
	Permit Requirement							

*IF A SECOND DEFINITIVE TEST IS REQUIRED, ENTER THE RESULT IN AN EMPTY ROW.

**ENTER NODI=C IN THE RESULTS COLUMN IF NO DISCHARGE OCCURRED DURING THIS REPORTING PERIOD.

ENTER NODI=9 IN THE RESULTS COLUMN IF NO DEFINITIVE TESTS ARE REQUIRED.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

NAME/TITLE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE NO	DATE (YY/MM/DD)

DEPARTMENT OF ENVIRONMENTAL PROTECTION DISCHARGE MONITORING REPORT - PART A DRAFT

When Completed mail this report to: Department of Environmental Protection, Wastewater Compliance Evaluation Section, MS 3551, 2600 Blair Stone Road, Tallahassee, FL 32399-2400

PERMITTEE NAME: Tampa Electric Company
MAILING ADDRESS: P.O. Box 111
Tampa, FL 33601

PERMIT NUMBER: FL0043869-007-IW1S

LIMIT: Final
CLASS SIZE: Major

REPORT: Monthly
GROUP: Industrial

FACILITY: Polk Power Station
LOCATION: State Road 37 & County Road 630
Mulberry, FL 33860

MONITORING GROUP NUMBER: D-002
MONITORING GROUP DESC: Stormwater Runoff

COUNTY: Polk

NO DISCHARGE FROM SITE: ☐

MONITORING PERIOD From: _____ To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
Flow	Sample Measurement										
PARM Code 50050 Mon. Site No. FLW-4	Permit Requirement	Report (Day.Avg.)	Report (Day.Max.)	MGD						Weekly	Calculated
BOD, Carbonaceous 5 day, 20C	Sample Measurement										
PARM Code 80082 Mon. Site No. EFF-2	Permit Requirement				12.0 (Day.Avg.)	Report (Day.Max.)		MG/L		Weekly	Grab
Solids, Total Suspended	Sample Measurement										
PARM Code 00530 Mon. Site No. EFF-2	Permit Requirement				Report (Day.Avg.)	50.0 (Day.Max.)		MG/L		Weekly	Grab
Oil and Grease	Sample Measurement										
PARM Code 00556 Mon. Site No. EFF-2	Permit Requirement				Report (Day.Avg.)	5.0 (Day.Max.)		MG/L		Weekly	Grab
pH	Sample Measurement										
PARM Code 00400 Mon. Site No. EFF-2	Permit Requirement				6.0 (Day.Min.)	8.5 (Day.Max.)		SU		Weekly	Grab
	Sample Measurement										
	Permit Requirement										

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

NAME/TITLE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE NO	DATE (YY/MM/DD)

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here):

DEPARTMENT OF ENVIRONMENTAL PROTECTION DISCHARGE MONITORING REPORT - PART A DRAFT

When Completed mail this report to: Department of Environmental Protection, Wastewater Compliance Evaluation Section, MS 3551, 2600 Blair Stone Road, Tallahassee, FL 32399-2400

PERMITTEE NAME: Tampa Electric Company
MAILING ADDRESS: P.O. Box 111
Tampa, FL 33601

PERMIT NUMBER: FL0043869-007-1W1S

LIMIT: Final
CLASS SIZE: Major

REPORT: Monthly
GROUP: Industrial

FACILITY: Polk Power Station
LOCATION: State Road 37 & County Road 630
Mulberry, FL 33860

MONITORING GROUP NUMBER: I-003
MONITORING GROUP DESC: Low Volume Waste

COUNTY: Polk

NO DISCHARGE FROM SITE: ☐
MONITORING PERIOD From: _____ To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
Flow	Sample Measurement										
PARM Code 50050 1 Mon. Site No. FLW-2	Permit Requirement	Report (Mo. Avg.)	Report (Day. Max.)	MGD						Monthly	Calculated
Solids, Total Suspended	Sample Measurement										
PARM Code 00530 P Mon. Site No. OUI-1	Permit Requirement				30.0 (Day. Avg.)	100.0 (Day. Max.)		MG/L		Monthly	Grab
Oil and Grease	Sample Measurement										
PARM Code 00556 P Mon. Site No. OUI-1	Permit Requirement				15.0 (Day. Avg.)	20.0 (Day. Max.)		MG/L		Monthly	Grab
Selenium, Total Recoverable	Sample Measurement										
PARM Code 00981 P Mon. Site No. OUI-1	Permit Requirement					Report (Day. Max.)	Report (Mo. Avg.)	UG/L		Monthly	Grab
	Sample Measurement										
	Permit Requirement										
	Sample Measurement										
	Permit Requirement										

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

NAME/TITLE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE NO	DATE (YY/MM/DD)

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here):

DEPARTMENT OF ENVIRONMENTAL PROTECTION DISCHARGE MONITORING REPORT - PART A DRAFT

When Completed mail this report to: Department of Environmental Protection, Wastewater Compliance Evaluation Section, MS 3551, 2600 Blair Stone Road, Tallahassee, FL 32399-2400

PERMITTEE NAME: Tampa Electric Company
MAILING ADDRESS: P.O. Box 111
Tampa, FL 33601

PERMIT NUMBER FL0043869-007-JWIS

LIMIT:
CLASS SIZE:

Final
Major

REPORT: Monthly
GROUP: Industrial

FACILITY: Polk Power Station
LOCATION: State Road 37 & County Road 630
Mulberry, FL 33860

MONITORING GROUP NUMBER: I-004
MONITORING GROUP DESC: Equalization Basin Wastewater

COUNTY: Polk

NO DISCHARGE FROM SITE: ☐

MONITORING PERIOD From: _____ To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
Flow	Sample Measurement										
PARM Code 50050 I Mon. Site No. FLW-3	Permit Requirement	Report (Mo.Avg.)	Report (Day.Max.)	MGD						Monthly	Calculated
Solids, Total Suspended	Sample Measurement										
PARM Code 00530 P Mon. Site No. OUI-2	Permit Requirement				30.0 (Day.Avg.)	100.0 (Day.Max.)		MG/L		Monthly	Grab
Oil and Grease	Sample Measurement										
PARM Code 00556 P Mon. Site No. OUI-2	Permit Requirement				15.0 (Day.Avg.)	20.0 (Day.Max.)		MG/L		Monthly	Grab
Copper, Total Recoverable	Sample Measurement										
PARM Code 01119 P Mon. Site No. OUI-2	Permit Requirement				1.0 (Day.Avg.)	1.0 (Day.Max.)		MG/L		Per Occurrence	Grab
Iron, Total Recoverable	Sample Measurement										
PARM Code 00980 P Mon. Site No. OUI-2	Permit Requirement				1.0 (Day.Avg.)	1.0 (Day.Max.)		MG/L		Per Occurrence	Grab
pH	Sample Measurement										
PARM Code 00400 P Mon. Site No. OUI-2	Permit Requirement					6.0 (Day.Min.) 9.0 (Day.Max.)		SU		Monthly	Grab
Selenium, Total Recoverable	Sample Measurement										
PARM Code 00981 P Mon. Site No. OUI-2	Permit Requirement				Report (Mo.Avg.)	Report (Day.Max.)		UG/L		Monthly	Grab

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

NAME/TITLE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE NO	DATE (YY/MM/DD)

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here):

INSTRUCTIONS FOR COMPLETING THE WASTEWATER DISCHARGE MONITORING REPORT

Read these instructions as well as the SUPPLEMENTAL INSTRUCTIONS FOR COMPLETING THE WASTEWATER DISCHARGE MONITORING REPORT before completing the DMR. Hard copies and/or electronic copies of the required parts of the DMR were provided with the permit. All required information shall be completed in full and typed or printed in ink. A signed, original DMR shall be mailed to the address printed on the DMR by the 28th of the month following the monitoring period. The DMR shall not be submitted before the end of the monitoring period.

The DMR consists of three parts--A, B, and D--all of which may or may not be applicable to every facility. Facilities may have one or more Part A's for reporting effluent or reclaimed water data. All domestic wastewater facilities will have a Part B for reporting daily sample results. Part D is used for reporting ground water monitoring well data.

When results are not available, the following codes should be used on parts A and D of the DMR and an explanation provided where appropriate. Note: Codes used on Part B for raw data are different.

CODE	DESCRIPTION/INSTRUCTIONS
ANC	Analysis not conducted.
DRY	Dry Well
FLD	Flood disaster.
IFS	Insufficient flow for sampling.
LS	Lost sample.
MNR	Monitoring not required this period.

CODE	DESCRIPTION/INSTRUCTIONS
NOD	No discharge from/to site.
OPS	Operations were shutdown so no sample could be taken.
OTH	Other. Please enter an explanation of why monitoring data were not available.
SEF	Sampling equipment failure.

When reporting analytical results that fall below a laboratory's reported method detection limits or practical quantification limits, the following instructions should be used:

1. Results greater than or equal to the PQL shall be reported as the measured quantity.
2. Results less than the PQL and greater than or equal to the MDL shall be reported as the laboratory's MDL value. These values shall be deemed equal to the MDL when necessary to calculate an average for that parameter and when determining compliance with permit limits.
3. Results less than the MDL shall be reported by entering a less than sign (" $<$ ") followed by the laboratory's MDL value, e.g. < 0.001 . A value of one-half the MDL or one-half the effluent limit, whichever is lower, shall be used for that sample when necessary to calculate an average for that parameter. Values less than the MDL are considered to demonstrate compliance with an effluent limitation.

PART A -DISCHARGE MONITORING REPORT (DMR)

Part A of the DMR is comprised of one or more sections, each having its own header information. Facility information is preprinted in the header as well as the monitoring group number, whether the limits and monitoring requirements are interim or final, and the required submittal frequency (e.g. monthly, annually, quarterly, etc.). Submit Part A based on the required reporting frequency in the header and the instructions shown in the permit. The following should be completed by the permittee or authorized representative:

No Discharge From Site: Check this box if no discharge occurs and, as a result, there are no data or codes to be entered for all of the parameters on the DMR for the entire monitoring group number; however, if the monitoring group includes other monitoring locations (e.g., influent sampling), the "NOD" code should be used to individually denote those parameters for which there was no discharge.

Monitoring Period: Enter the month, day, and year for the first and last day of the monitoring period (i.e. the month, the quarter, the year, etc.) during which the data on this report were collected and analyzed.

Sample Measurement: Before filling in sample measurements in the table, check to see that the data collected correspond to the limit indicated on the DMR (i.e. interim or final) and that the data correspond to the monitoring group number in the header. Enter the data or calculated results for each parameter on this row in the non-shaded area above the limit. Be sure the result being entered corresponds to the appropriate statistical base code (e.g. annual average, monthly average, single sample maximum, etc.) and units.

No. Ex.: Enter the number of sample measurements during the monitoring period that exceeded the permit limit for each parameter in the non-shaded area. If none, enter zero.

Frequency of Analysis: The shaded areas in this column contain the minimum number of times the measurement is required to be made according to the permit. Enter the actual number of times the measurement was made in the space above the shaded area.

Sample Type: The shaded areas in this column contain the type of sample (e.g. grab, composite, continuous) required by the permit. Enter the actual sample type that was taken in the space above the shaded area.

Signature: This report must be signed in accordance with Rule 62-620.305, F.A.C. Type or print the name and title of the signing official. Include the telephone number where the official may be reached in the event there are questions concerning this report. Enter the date when the report is signed.

Comment and Explanation of Any Violations: Use this area to explain any exceedances, any upset or by-pass events, or other items which require explanation. If more space is needed, reference all attachments in this area.

PART B - DAILY SAMPLE RESULTS

Monitoring Period: Enter the month, day, and year for the first and last day of the monitoring period (i.e. the month, the quarter, the year, etc.) during which the data on this report were collected and analyzed.

Daily Monitoring Results: Transfer all analytical data from your facility's laboratory or a contract laboratory's data sheets for all day(s) that samples were collected. Record the data in the units indicated. Table 1 in Chapter 62-160, F.A.C., contains a complete list of all the data qualifier codes that your laboratory may use when reporting analytical results. However, when transferring numerical results onto Part B of the DMR, only the following data qualifier codes should be used and an explanation provided where appropriate.

CODE	DESCRIPTION/INSTRUCTIONS
<	The compound was analyzed for but not detected.
A	Value reported is the mean (average) of two or more determinations.
J	Estimated value, value not accurate.
Q	Sample held beyond the actual holding time.
Y	Laboratory analysis was from an unpreserved or improperly preserved sample.

Add the results to get the Total and divide by the number of days in the month to get the Monthly Average.

Plant Staffing: List the name, certificate number, and class of all state certified operators operating the facility during the monitoring period. Use additional sheets as necessary.

PART D - GROUND WATER MONITORING REPORT

Monitoring Period: Enter the month, day, and year for the first and last day of the monitoring period (i.e. the month, the quarter, the year, etc.) during which the data on this report were collected and analyzed.

Date Sample Obtained: Enter the date the sample was taken. Also, check whether or not the well was purged before sampling.

Time Sample Obtained: Enter the time the sample was taken.

Sample Measurement: Record the results of the analysis. If the result was below the minimum detection limit, indicate that.

Detection Limits: Record the detection limits of the analytical methods used.

Analysis Method: Indicate the analytical method used. Record the method number from Chapter 62-160 or Chapter 62-601, F.A.C., or from other sources.

Sampling Equipment Used: Indicate the procedure used to collect the sample (e.g. airlift, bucket/bailer, centrifugal pump, etc.)

Samples Filtered: Indicate whether the sample obtained was filtered by laboratory (L), filtered in field (F), or unfiltered (N).

Signature: This report must be signed in accordance with Rule 62-620.305, F.A.C. Type or print the name and title of the signing official. Include the telephone number where the official may be reached in the event there are questions concerning this report. Enter the date when the report is signed.

Comments and Explanation: Use this space to make any comments on or explanations of results that are unexpected. If more space is needed, reference all attachments in this area.

SPECIAL INSTRUCTIONS FOR LIMITED WET WEATHER DISCHARGES

Flow (Limited Wet Weather Discharge): Enter the measured average flow rate during the period of discharge or divide gallons discharged by duration of discharge (converted into days). Record in million gallons per day (MGD).

Flow (Upstream): Enter the average flow rate in the receiving stream upstream from the point of discharge for the period of discharge. The average flow rate can be calculated based on two measurements; one made at the start and one made at the end of the discharge period. Measurements are to be made at the upstream gauging station described in the permit.

Actual Stream Dilution Ratio: To calculate the Actual Stream Dilution Ratio, divide the average upstream flow rate by the average discharge flow rate. Enter the Actual Stream Dilution Ratio accurate to the nearest 0.1.

No. of Days the SDF > Stream Dilution Ratio: For each day of discharge, compare the minimum Stream Dilution Factor (SDF) from the permit to the calculated Stream Dilution Ratio. On Part B of the DMR, enter an asterisk (*) if the SDF is greater than the Stream Dilution Ratio on any day of discharge. On Part A of the DMR, add up the days with an "*" and record the total number of days the Stream Dilution Factor was greater than the Stream Dilution Ratio.

CBOD₅: Enter the average CBOD₅ of the reclaimed water discharged during the period shown in duration of discharge.

TKN: Enter the average TKN of the reclaimed water discharged during the period shown in duration of discharge.

Actual Rainfall: Enter the actual rainfall for each day on Part B. Enter the actual cumulative rainfall to date for this calendar year and the actual total monthly rainfall on Part A. The cumulative rainfall to date for this calendar year is the total amount of rain, in inches, that has been recorded since January 1 of the current year through the month for which this DMR contains data.

Rainfall During Average Rainfall Year: On Part A, enter the total monthly rainfall during the average rainfall year and the cumulative rainfall for the average rainfall year. The cumulative rainfall for the average rainfall year is the amount of rain, in inches, which fell during the average rainfall year from January through the month for which this DMR contains data.

No. of Days LWWD Activated During Calendar Year: Enter the cumulative number of days that the limited wet weather discharge was activated since January 1 of the current year.

Reason for Discharge: Attach to the DMR a brief explanation of the factors contributing to the need to activate the limited wet weather discharge.

APPENDIX 10.6.3

PSD PERMIT FOR UNITS 4 AND 5 (PSD-FL-363/1050233-018-AC)

**STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION**

NOTICE OF FINAL PERMIT

In the Matter of an
Application for Permit by:

Tampa Electric Company
PO Box 111
Tampa, Florida 33601-0111

Authorized Representative:

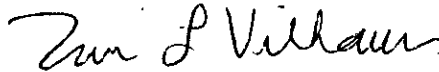
Mr. Mark J. Hornick, General Manager

Permit No. PSD-FL-363
Project No. 1050233-018-AC
TECO Polk Power Station
Simple Cycle Units 4 and 5
Polk County, Florida

Enclosed is Final Air Permit No. PSD-FL-363, which authorizes the construction of two simple cycle gas turbine generators with a nominal output of 165 MW each at the existing Polk Power Station (SIC No. 4911). The facility is located approximately 11 miles south of the city of Mulberry (9995 State Route 37 South) in Polk County, Florida. As noted in the attached Final Determination, only minor changes and clarifications were made. This permit is issued pursuant to Chapter 403, Florida Statutes.

Any party to this order has the right to seek judicial review of it under Section 120.68 of the Florida Statutes by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel (Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000) and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within thirty (30) days after this order is filed with the clerk of the Department.

Executed in Tallahassee, Florida.



Trina Vielhauer, Chief
Bureau of Air Regulation

CERTIFICATE OF SERVICE

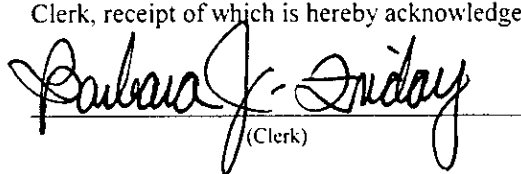
The undersigned duly designated deputy agency clerk hereby certifies that this Notice of Final Permit (including the Final permit) was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 4/28/06 to the persons listed:

Mark J. Hornick, TECO*
Byron T. Burrows, TECO
Raisa Calderon, TECO
Tom Davis, ECT -

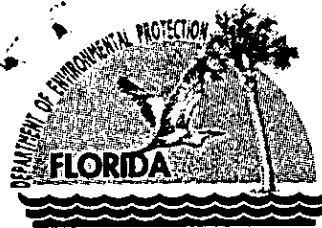
Jason Waters, Southwest District Office
Hamilton Owen, DEP Siting Office
Gregg Worley, EPA Region 4
John Bunyak, NPS

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to §120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.


(Clerk)

4/28/06
(Date)



Department of Environmental Protection

Jeb Bush
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Colleen M. Castille
Secretary

PERMITTEE:

Tampa Electric Company
PO Box 111
Tampa, Florida 33601-0111
Authorized Representative:
Mark J. Hornick, General Manager

Permit No. PSD-FL-363
Project No. 1050233-018-AC
TECO Polk Power Station
Simple Cycle Units 4 and 5
Expires: October 1, 2008

PROJECT AND LOCATION

This permit authorizes the construction of two simple cycle gas turbine generators with a nominal output of 165 MW each at the existing Polk Power Station (SIC No. 4911). The facility is located approximately 11 miles south of the city of Mulberry (9995 State Route 37 South) in Polk County, Florida.

APPENDICES

The following Appendices are attached as part of this permit.

Appendix BD. Final BACT Determinations and Emissions Standards

Appendix C. Common State Rules

Appendix GC. General Conditions

Appendix GG. NSPS Provisions - Subparts A and GG for Stationary Gas Turbines

STATEMENT OF BASIS

This construction permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.). The project was processed in accordance with the requirements of Rule 62-212.400, F.A.C., the preconstruction review program for the Prevention of Significant Deterioration (PSD) of Air Quality. The permittee is authorized to install the proposed equipment in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department of Environmental Protection (Department).

Michael G. Cooke, Director
Division of Air Resource Management

Effective Date: April 28, 2006

SECTION I. GENERAL INFORMATION

FACILITY DESCRIPTION

The regulated emissions units at the existing Polk Power Station include the following: a 260 MW integrated coal gasification and combined cycle gas turbine (Unit 1) capable of firing synthetic gas (syngas) or No. 2 fuel oil; an auxiliary boiler that fires No. 2 fuel oil; a sulfuric acid plant; a solid fuel handling system; and two nominal 165 MW simple cycle gas turbines (Units 2 and 3) capable of firing either natural gas or No. 2 fuel oil.

PROJECT DESCRIPTION

The project is for the addition of two General Electric PG7241(FA) simple cycle gas turbine generators with a nominal output of 165 MW each at the existing facility. Each unit may operate up to 4380 hours per year. The new units will be fired exclusively with natural gas, which will minimize SO₂ emissions. The units will be designed and constructed with dry low-NO_x burner technology for the control of NO_x emissions. The advanced burner design will reduce incomplete combustion and minimize CO, PM₁₀, and VOC emissions.

EMISSIONS UNITS

This permit authorizes construction and installation of the following new emissions units:

EU No.	Emission Unit Description
011	Unit 4 – 165 MW General Electric PG7241 FA gas turbine-electrical generator
012	Unit 5 – 165 MW General Electric PG7241 FA gas turbine-electrical generator

REGULATORY CLASSIFICATION

Title III: The facility is not a major source of hazardous air pollutants (HAPs).

Title IV: The facility operates units subject to the Acid Rain provisions of the Clean Air Act.

Title V: The facility is a Title V or “major source” of air pollution in accordance with Chapter 62-213, F.A.C.

PSD: The facility is a PSD-major facility pursuant to Rule 62-212, F.A.C.

NSPS: Units 4 and 5 are subject to 40 CFR 60, Subpart GG (Standards of Performance for Stationary Gas Turbines). They are not be subject to NSPS Subpart KKKK (Standards of Performance for Stationary Combustion Turbines for which Construction is Commenced after February 18, 2005) because the purchase contract with General Electric was signed on July 21, 2000, which is prior to the NSPS effective date.

NESHAP: Units 4 and 5 are not subject to 40 CFR 63, Subpart YYYY (National Emissions Standard for Hazardous Air Pollutants for Stationary Combustion Gas Turbines) because the facility is not a major source of HAPs.

Siting: This plant is subject to certain requirements of Chapter 403, Part II, Florida Statutes, Electric Power Plant and Transmission Line Siting, including a modification of the conditions Site Certification PA92-32.

RELEVANT DOCUMENTS

The following relevant documents are not a part of this permit, but helped form the basis for this permitting action: the permit application and additional information received to make it complete; the draft permit package including the Department’s Technical Evaluation and Preliminary Determination; publication and comments; and the Department’s Final Determination and Best Available Control Technology (BACT) determinations.

SECTION II. ADMINISTRATIVE REQUIREMENTS

1. Permitting Authority: All documents related to applications for permits to construct, operate or modify emissions unit should be submitted to the Bureau of Air Regulation (BAR), Florida Department of Environmental Protection (DEP), at 2600 Blair Stone Road (MS #5505), Tallahassee, Florida 32399-2400. Copies of all such documents shall also be submitted to the Compliance Authority.
2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications should be submitted to the Air Resources Section of the Department's Southwest District Office at 13051 N. Telecom Parkway, Temple Terrace, FL 33637-0926.
3. General Conditions: The permittee shall operate under the attached General Conditions listed in Appendix GC of this permit. General Conditions are binding and enforceable pursuant to Chapter 403 of the Florida Statutes. [Rule 62-4.160, F.A.C.]
4. Applicable Regulations, Forms and Application Procedures: Unless otherwise indicated in this permit, the construction and operation of the subject emissions unit shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of: Chapter 403 of the Florida Statutes (F.S.); Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-214, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.); and the Title 40, Parts 51, 52, 60, 63, 72, 73, and 75 of the Code of Federal Regulations (CFR), adopted by reference in Rule 62-204.800, F.A.C. The terms used in this permit have specific meanings as defined in the applicable chapters of the Florida Administrative Code. The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. Issuance of this permit does not relieve the permittee from compliance with any applicable federal, state, or local permitting or regulations. [Rules 62-204.800, 62-210.300 and 62-210.900, F.A.C.]
5. Construction and Expiration: The permit expiration date includes sufficient time to complete construction, perform required testing, submit test reports, and submit an application for a Title V operation permit to the Department. Approval to construct shall become invalid for any of the following reasons: construction is not commenced within 18 months after issuance of this permit; construction is discontinued for a period of 18 months or more; or construction is not completed within a reasonable time. The Department may extend the 18-month period upon a satisfactory showing that an extension is justified. In conjunction with an extension of the 18-month period to commence or continue construction (or to construct the project in phases), the Department may require the permittee to demonstrate the adequacy of any previous determination of Best Available Control Technology (BACT) for emissions units regulated by the project. For good cause, the permittee may request that this PSD air construction permit be extended. Such a request shall be submitted to the Department's Bureau of Air Regulation at least sixty (60) days prior to the expiration of this permit. [Rules 62-4.070(4), 62-4.080, 62-210.300(1), and 62-212.400(12), F.A.C.]
6. New or Additional Conditions: For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]
7. Source Obligation.
 - (a) Authorization to construct shall expire if construction is not commenced within 18 months after receipt of the permit, if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time. This provision does not apply to the time period between construction of the approved phases of a phased construction project except that each phase must commence construction within 18 months of the commencement date established by the Department in the permit.

SECTION II. ADMINISTRATIVE REQUIREMENTS

- (b) At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by virtue of a relaxation in any enforceable limitation which was established after August 7, 1980, on the capacity of the source or modification otherwise to emit a pollutant, such as a restriction on hours of operation, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification.
- (c) At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by exceeding its projected actual emissions, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification.

[Rule 62-212.400(12), F.A.C.]

- 8. Modifications: No emissions unit or facility subject to this permit shall be constructed or modified without obtaining an air construction permit from the Department. Such permit shall be obtained prior to beginning construction or modification. [Chapters 62-210 and 62-212, F.A.C.]
- 9. Application for Title IV Permit: At least 24 months before the date on which the new unit begins serving an electrical generator greater than 25 MW, the permittee shall submit an application for a Title IV Acid Rain Permit to the Department's Bureau of Air Regulation in Tallahassee and a copy to the Region 4 Office of the U.S. Environmental Protection Agency in Atlanta, Georgia. This permit does not specify the Acid Rain program requirements. These will be included in the Title V air operation permit. [40 CFR 72]
- 10. Title V Permit: This permit authorizes construction of the permitted emissions unit and initial operation to determine compliance with Department rules. A Title V operation permit is required for regular operation of the permitted emission units. The permittee shall apply for and obtain a Title V operation permit in accordance with Rule 62-213.420, F.A.C. To apply for a Title V operation permit, the applicant shall submit the appropriate application form, compliance test results, and such additional information as the Department may by law require. The application shall be submitted to the Department's Bureau of Air Regulation and a copy to the Compliance Authority. [Rules 62-4.030, 62-4.050, 62-4.220, and Chapter 62-213, F.A.C.]

SECTION III - EMISSIONS UNITS SPECIFIC CONDITIONS

A. Simple Cycle Gas Turbine Units 4 and 5 (EU-011 and EU-012)

The specific conditions of this subsection apply to the following emissions units.

EU No.	Emission Unit Description
011	Unit 4 – 165 MW General Electric PG7241 FA gas turbine-electrical generator
012	Unit 5 – 165 MW General Electric PG7241 FA gas turbine-electrical generator

APPLICABLE STANDARDS AND REGULATIONS

1. BACT Determinations: Units 4 and 5 are subject to determinations of the Best Available Control Technology (BACT) for nitrogen oxides (NO_x), particulate matter (PM/PM₁₀), and sulfur dioxide (SO₂). [Rule 62-212.400(BACT), F.A.C.]
2. NSPS Requirements: The gas turbines shall comply with the applicable New Source Performance Standards (NSPS) in 40 CFR 60, including: Subpart A (General Provisions) and Subpart GG (Standards of Performance for Stationary Gas Turbines). See Appendix GG of this permit. The BACT emissions standards are as stringent as or more stringent than the limits imposed by the applicable NSPS provisions. Some separate reporting and monitoring may be required by the individual subparts. These provisions include a requirement to correct test data to ISO conditions; however, such correction is not used for compliance determinations with the BACT standards. [Rule 62-204.800(7)(b), F.A.C.; 40 CFR 60, Subparts A and GG]

EQUIPMENT DESCRIPTION

3. Gas Turbines: The permittee is authorized to install, tune, operate, and maintain two General Electric Model PG7241FA gas turbine-electrical generator sets with a nominal generating capacity of 165 MW each. Each gas turbine will be equipped with a DLN combustion system and an inlet air filtration system. The unit shall include a SpeedtronicTM Mark V automated gas turbine control system (or equivalent). [Application No. 1050233-018-AC; Design]

CONTROL TECHNOLOGY

4. DLN Combustion: The permittee shall operate and maintain the General Electric DLN 2.6 combustion system (or better) to control NO_x emissions from the gas turbines when firing natural gas. Prior to the initial emissions performance tests required for the gas turbine, the DLN combustors and automated gas turbine control system shall be tuned to achieve the permitted levels for CO and NO_x. Thereafter, the system shall be maintained and tuned in accordance with the manufacturer's recommendations. [Application No. 1050233-018-AC; Design; Rule 62-212.400(BACT), F.A.C.]

PERFORMANCE REQUIREMENTS

5. Hours of Operation: Each gas turbine shall operate no more than 4380 hours during any consecutive 12 months. Restrictions on individual methods of operation are specified in separate conditions. [Application No. 1050233-018-AC; Rules 62-210.200(PTE) and 62-212.400(12), F.A.C.]
6. Permitted Capacity: The maximum heat input rate for each gas turbine is 1834 MMBtu per hour when firing natural gas based on a compressor inlet air temperature of 59° F, the higher heating value (HHV) of natural gas, and 100% load. Heat input rates will vary depending upon gas turbine characteristics, ambient conditions, alternate methods of operation, and evaporative cooling. The permittee shall provide manufacturer's performance curves (or equations) that correct for site conditions to the Permitting and Compliance Authorities within 45 days of completing the initial compliance testing. Operating data may be adjusted for the appropriate site conditions in accordance with the performance curves and/or equations on file with the Department. [Rules 62-4.070(3), 62-212.400(BACT), and 62-210.200(PTE), F.A.C.]

SECTION III - EMISSIONS UNITS SPECIFIC CONDITIONS

A. Simple Cycle Gas Turbine Units 4 and 5 (EU-011 and EU-012)

7. Authorized Fuels: Each gas turbine shall fire only natural gas containing no more than 2.0 grains of sulfur per 100 standard cubic feet of natural gas. [Rules 62-210.200(PTE) and 62-212.400 (BACT), F.A.C.]
8. Simple Cycle, Intermittent Operation: Each turbine shall operate only in simple cycle mode not to exceed the permitted hours of operation allowed by this permit. This restriction is based on the permittee's request, which formed the basis of the PSD applicability and BACT determinations and resulted in the emission standards specified in this permit. For any request to convert this unit to combined cycle operation by installing/connecting to heat recovery steam generators, including changes to the fuel quality or quantity related to combined cycle conversion which may cause an increase in short or long-term emissions, the permittee may be required to submit a full PSD permit application complete with a new proposal of the best available control technology as if the unit had never been built. [Rules 62-212.400(12) and 62-212.400(BACT), F.A.C.]

EMISSIONS AND TESTING REQUIREMENTS

9. Emission Standards: Emissions from each gas turbine shall not exceed the following emissions standards.

Pollutant	Emission Standard ^e	Averaging Time	Compliance Method	Basis
CO ^a	99.0 tons (Emissions Cap)	12-month rolling total Both Units Combined	CEMS	Avoid PSD
	9.0 ppmvd @ 15% O ₂ 36.0 lb/hour	3-hour test avg.	Initial Only EPA Method 10 Test	
NO _x ^b	9.0 ppmvd @ 15% O ₂	24-hour block, CEMS	CEMS	BACT
	60.9 lb/hour	3-hour test avg.	EPA Methods 7E/20 Test	
PM/PM ₁₀ ^c	10 % Opacity	6-minute block	EPA Method 9 Test	BACT
	2 grains S/100 SCF of gas	N/A	Record Keeping	
SO ₂ ^d	2 grains S/100 SCF of gas	N/A	Record Keeping	BACT

- a. The permittee shall conduct an initial test to demonstrate compliance with the short-term (ppmvd @ 15% O₂ and lb/hour) CO emissions limits for the unit as constructed. Thereafter, continuous compliance shall be demonstrated with the CO emissions cap by data collected from the required continuous emissions monitoring systems (CEMS) for both units combined.
- b. The permittee shall conduct an initial test to demonstrate compliance with the short-term (ppmvd @ 15% O₂ and lb/hour) NO_x emissions limits. Thereafter, continuous compliance shall be demonstrated with the 24-hour block NO_x emissions limit by data collected from the required continuous emissions monitoring system (CEMS).
- c. The fuel sulfur specifications combined with the efficient combustion design and operation of the gas turbine represents BACT for particulate matter (PM/PM₁₀) emissions. No stack tests are required. Compliance with the CO and visible emissions standards shall serve as indicators of good combustion. {Permitting Note: Maximum expected PM/PM₁₀ emissions from each gas turbine are approximately 18 lb/hour.}
- d. The fuel sulfur specifications effectively limit the potential emissions of sulfur dioxide (SO₂) from each gas turbine and represent BACT for SO₂ emissions. No stack tests are required. {Permitting Note: Maximum expected SO₂ emissions from each gas turbine are approximately 9.5 lb/hour.}

SECTION III - EMISSIONS UNITS SPECIFIC CONDITIONS

A. Simple Cycle Gas Turbine Units 4 and 5 (EU-011 and EU-012)

- e. The mass emission rate standards are based on a turbine inlet condition of 59° F and the higher heating value of natural gas. Mass emission rates may be adjusted from actual test conditions in accordance with the performance curves and/or equations on file with the Department.

{Permitting Note: In combination with the annual restriction on hours of operation, the above emissions standards effectively limit annual potential emissions from both gas turbines to: 99 tons/year of CO, 267 tons/year of NO_x, 79 tons/year of PM/PM₁₀, 42 tons/year of SO₂, 5 tons/year of SAM, and 12 tons/year of VOC.}

[Rule 62-212.400 (BACT), F.A.C.; Rule 62-4.070(3), F.A.C.]

10. Unconfined Particulate Emissions: During the construction period, unconfined particulate matter emissions shall be minimized by dust suppressing techniques such as covering, confining, or applying water or chemicals to the affected areas, as necessary. [Rule 62-296.320(4)(c), F.A.C.]
11. Test Methods: Any required stack tests shall be performed in accordance with the following methods.

Method	Description of Method and Comments
7E	Determination of Nitrogen Oxide Emissions from Stationary Sources (Instrumental)
9	Visual Determination of the Opacity of Emissions from Stationary Sources
10	Determination of Carbon Monoxide Emissions from Stationary Sources Note: The method shall be based on a continuous sampling train. The ascarite trap may be omitted or the interference trap of section 10.1 may be used in lieu of the silica gel and ascarite traps.
20	Determination of Nitrogen Oxides, Sulfur Dioxide and Diluent Emissions from Stationary Gas Turbines

The methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used for compliance testing unless prior written approval is received from the Department. Tests shall be conducted in accordance with the appropriate test method, the applicable requirements specified in Appendix C of this permit, and the provisions in NSPS Subparts A and GG in 40 CFR 60. [Rules 62-204.800 and 62-297.100, F.A.C.; 40 CFR 60, Subparts A and GG, and Appendix A.]

12. Testing Requirements: Initial and subsequent performance tests shall be conducted between 90% and 100% of permitted capacity in accordance with the requirements of Rule 62-297.310(2), F.A.C. [Rule 62-297.310(7)(a) and (b), F.A.C.; 40 CFR 60.8]
13. Initial Compliance Demonstration: Initial compliance tests shall be conducted within 60 days after achieving the maximum production rate at which the units will be operated, but not later than 180 days after the initial startup. In accordance with the test methods specified in this permit, the turbine exhaust stack shall be tested to demonstrate compliance with the emission standards for CO, NO_x, and visible emissions. For each test run (including visible emissions tests), CO and NO_x emissions recorded by the required CEMS shall be reported. The permittee shall provide the Compliance Authority with any other initial emissions performance tests conducted to satisfy vendor guarantees. [Rule 62-297.310(7)(a) and (b), F.A.C.; 40 CFR 60.8]
14. Annual Compliance Testing: During each federal fiscal year (October 1st to September 30th), annual compliance tests for visible emissions shall be conducted. For each visible emissions test, emissions of CO and NO_x recorded by the CEMS shall also be reported. [Rules 62-297.310(7)(a) and (b), F.A.C.]
15. Continuous Compliance: Continuous compliance with the CO and NO_x emissions standards shall be demonstrated with data collected from the required continuous emissions monitoring systems (CEMS). [Rules 62-297.310(7)(a) and (b), F.A.C.]
16. Special Compliance Tests: When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any

SECTION III - EMISSIONS UNITS SPECIFIC CONDITIONS

A. Simple Cycle Gas Turbine Units 4 and 5 (EU-011 and EU-012)

applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it shall require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department. The Department may, require the permittee to conduct additional tests after major replacement or major repair of any air pollution control equipment, such as the DLN combustors, etc. [Rule 62-297.310(7)(b), F.A.C.]

EXCESS EMISSIONS

{Permitting Note: The following conditions apply only to the SIP-based emissions standards specified in Condition No. 9 of this section. Rule 62-210.700, F.A.C. (Excess Emissions) cannot vary or supersede any federal NSPS, NESHAP, or Acid Rain provision.}

17. Operating Procedures: The Best Available Control Technology (BACT) determinations established by this permit rely on "good operating practices" to reduce emissions. Therefore all operators and supervisors shall be properly trained to operate and ensure maintenance of the gas turbines, and pollution control systems in accordance with the guidelines and procedures established by each manufacturer. The training shall include good operating practices as well as methods for minimizing excess emissions. [Rules 62-4.070(3) and 62-212.400(BACT), F.A.C.]
18. Definitions: Rules 62-210.200(159), (230) and (245), F.A.C. define the following terms.
 - a. *Startup* is defined as the commencement of operation of any emissions unit which has shut down or ceased operation for a period of time sufficient to cause temperature, pressure, chemical or pollution control device imbalances, which result in excess emissions.
 - b. *Shutdown* is the cessation of the operation of an emissions unit for any purpose.
 - c. *Malfunction* is defined as any unavoidable mechanical and/or electrical failure of air pollution control equipment or process equipment or of a process resulting in operation in an abnormal or unusual manner.
19. Excess Emissions Prohibited: Excess emissions caused entirely or in part by poor maintenance, poor operation or any other equipment or process failure that may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. All such preventable emissions shall be included in any compliance determinations based on CEMS data. [Rule 62-210.700(4), F.A.C.]
20. Alternate Visible Emissions Standard: Visible emissions due to startups, shutdowns, and malfunctions shall not exceed 10% opacity except for up to ten, 6-minute averaging periods during a calendar day, which shall not exceed 20% opacity. [Rule 62-212.400(BACT), F.A.C.]
21. Allowable NO_x Data Exclusions: Provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions are minimized, NO_x continuous monitoring data collected during periods of startup, shutdown, and malfunction may be excluded from the 24-hr block compliance demonstrations only in accordance with the following requirements. All periods of data excluded shall be consecutive for each such episode and only data obtained during the described episodes (startup, shutdown, malfunction, and DLN tuning) may be excluded. As provided by the authority in Rule 62-210.700(5), F.A.C., the following conditions replace the provisions in Rule 62-210.700(1), F.A.C.
 - a. *Startup*: In accordance with the procedures described in the CEMS Data Requirements of this section, no more than the first 30 minutes of CEMS data shall be excluded for each gas turbine startup. For startups of less than 30 minutes in duration, only those minutes attributable to startup shall be excluded.
 - b. *Shutdown*: In accordance with the procedures described in the CEMS Data Requirements of this section, no more than the first 20 minutes of CEMS data shall be excluded for each gas turbine

SECTION III - EMISSIONS UNITS SPECIFIC CONDITIONS

A. Simple Cycle Gas Turbine Units 4 and 5 (EU-011 and EU-012)

shutdown. For shutdowns less than 20 minutes in duration, only those minutes attributable to shutdown shall be excluded.

- c. *Malfunction*: In accordance with the procedures described in the CEMS Data Requirements of this section, no more than 120 minutes of CEMS data shall be excluded in a 24-hour period for each gas turbine due to malfunctions. Within one (1) working day of occurrence, the owner or operator shall notify the Compliance Authority of any malfunction resulting in the exclusion of CEMS data.
- d. *DLN Tuning*: CEMS data collected during initial or other DLN tuning sessions shall be excluded from the compliance demonstrations provided the tuning session is performed in accordance with the manufacturer's specifications. Prior to performing any tuning session, the permittee shall provide the Compliance Authority with an advance notice of at least one (1) day that details the activity and proposed tuning schedule. The notice may be by telephone, facsimile transmittal, or electronic mail. [Design; Rule 62-4.070(3), F.A.C.]

The permittee shall notify the Compliance Authority within one working day of discovering any emissions in excess of a CEMS standard subject to the specified averaging period. All such reasonably preventable emissions shall be included in any CEMS compliance determinations. All valid emissions data (including data collected during startup, shutdown, malfunction, and DLN tuning) shall be used to report annual emissions for the Annual Operating Report and demonstration of compliance with the CO emissions cap. [Rules 62-4.070(3), 62-210.200, 62-212.400(BACT) and 62-210.700, F.A.C.]

CONTINUOUS EMISSIONS MONITORING SYSTEM (CEMS) REQUIREMENTS

22. CEM Systems: The permittee shall install, calibrate, maintain, and operate continuous emission monitoring systems (CEMS) to measure and record the emissions of CO and NO_x from each gas turbine in a manner sufficient to demonstrate continuous compliance with the CEMS emission standards of this section. All continuous monitoring systems shall be installed and functioning within the required performance specification by the time of the initial performance tests.

- a. *CO Monitor*: Each CO monitor shall be certified pursuant to 40 CFR 60, Appendix B, Performance Specification 4 or 4A. Quality assurance procedures shall conform to the requirements of 40 CFR 60, Appendix F. The annual and required RATA tests shall be performed using EPA Method 10 in Appendix A of 40 CFR 60 and shall be based on a continuous sampling train. The CO monitor span values shall be set appropriately, considering the allowable methods of operation and corresponding emission standards.
- b. *NO_x Monitor*: Each NO_x monitor shall be certified pursuant to the specifications of 40 CFR 75. Quality assurance procedures shall conform to the requirements of 40 CFR 75. The annual and required RATA tests required for the NO_x monitor shall be performed using EPA Method 20 or 7E in Appendix A of 40 CFR 60.
- c. *Diluent Monitor*: The oxygen (O₂) or carbon dioxide (CO₂) content of the flue gas shall be monitored at the location where CO and NO_x are monitored to correct the measured emissions rates to 15% oxygen. If a CO₂ monitor is installed, the oxygen content of the flue gas shall be calculated using F-factors that are appropriate for the fuel fired. Each monitor shall comply with the performance and quality assurance requirements of 40 CFR 75.

[Rules 62-4.070(3), 62-210.800, 62-212.400(BACT) and 62-297.520, F.A.C.]

23. CEMS Data Requirements: The CEMS shall be installed, calibrated, maintained, and operated in the gas turbine stacks to measure and record the emissions of CO, and NO_x in a manner sufficient to demonstrate compliance with the CEMS-based emission limits of this section. The CEMS shall express the results in units of ppmvd corrected to 15% oxygen. Upon request by the Department, the CEMS emission rates shall

SECTION III - EMISSIONS UNITS SPECIFIC CONDITIONS

A. Simple Cycle Gas Turbine Units 4 and 5 (EU-011 and EU-012)

be corrected to ISO conditions to demonstrate compliance with the applicable standards of 40 CFR 60.332.

- a. *Valid Hourly Averages for Compliance:* Each CEMS shall be designed and operated to sample, analyze, and record data evenly spaced over the hour at a minimum of one measurement per minute. All valid measurements collected during an hour (except for the allowable NO_x data exclusions), shall be used to calculate a 1-hour block average that begins at the top of each hour. Each 1-hour block average shall be computed using at least one data point in each fifteen-minute quadrant of an hour, where the unit combusted fuel during that quadrant of an hour. Notwithstanding this requirement, a 1-hour average shall be computed from at least two data points separated by a minimum of 15 minutes (where the unit operates for more than one quadrant of an hour). If less than two such data points are available, there is insufficient data and the 1-hour block average is not valid. Also, if an allowable exclusion episode should occur over two separate hourly averages, only those minutes attributed to the specific episode shall be excluded from each hour. *{Permitting Note: For example, a 20-minute startup begins at 2:50 p.m. and ends at 3:10 pm. This means that 10 minutes of startup data would be excluded from the first hourly average and 10 minutes would be excluded from the second hourly average. The first hourly average (2:00 – 3:00 p.m.) is not a valid hourly average because there is insufficient data. The second hourly average (3:00 – 4:00 p.m.) is a valid hourly average consisting of 50 minutes of monitoring data.}*
- b. *24-hour Block Averages:* A 24-hour block shall begin at midnight of each operating day and shall be calculated from 24 consecutive valid hourly average concentration values. If a unit operates less than 24 hours during the block, or there are less than 24 valid hourly averages available, the 24-hour block average shall be the average of all available valid hourly average concentration values for the 24-hour block. *{Permitting Note: For purposes of determining compliance with the 24-hour CEMS standards, the missing data substitution methodology of 40 CFR Part 75, Subpart D, shall not be utilized. Instead, the 24-hour block average shall be determined using the remaining hourly data in the 24-hour block and periods of missing CEMS data are to be reported as monitor downtime in the excess emissions and monitoring performance reports. For example, the "24-hr block average" may consist of only 6 valid operating hours for the day.}*
- c. *12-Month Rolling Total:* By the end of each month, each CEMS shall determine a 12-month rolling total of CO emissions from each gas turbine and the combined total. The 12-month rolling total shall be based on all valid CO CEMS data collected, including startups, shutdowns, and malfunctions.
- d. *Data Exclusion:* Except for monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, each CEMS shall monitor and record emissions during all operations including episodes of startups, shutdowns, malfunctions, and DLN tuning. Limited amounts of NO_x CEMS emissions data recorded during some of these episodes may be excluded from the corresponding compliance demonstration subject to the provisions of Condition No. 21 in this section. The permittee shall minimize the duration of data excluded for such episodes to the extent practicable.
- e. *Monitor Availability.* Monitor availability for each CEMS used to demonstrate compliance shall be 95% or greater in any calendar quarter. Monitor availability shall be calculated consistent with 40 CFR §60.334 and reported in the SIP and NSPS excess emissions reports required in Condition 29. In the event that 95% availability is not achieved, the permittee shall provide the Department with a report identifying the problems in achieving 95% availability and a plan of corrective actions that will be taken to achieve 95% availability. The permittee shall implement the reported corrective actions within the next calendar quarter. Failure to take corrective actions or continued failure to achieve the minimum monitor availability shall be violations of this permit, except as otherwise authorized by the Compliance Authority.

[Rules 62-4.070(3) and 62-212.400(BACT), F.A.C.]

SECTION III - EMISSIONS UNITS SPECIFIC CONDITIONS

A. Simple Cycle Gas Turbine Units 4 and 5 (EU-011 and EU-012)

REPORTING AND RECORD KEEPING REQUIREMENTS

24. Monitoring of Capacity: The permittee shall monitor and record the operating rate of the gas turbine on a daily average basis, considering the number of hours of operation during each day (including the times of startup, shutdown, malfunction, and DLN tuning). This shall be achieved through monitoring daily rates of consumption and heat content of each allowable fuel in accordance with the provisions of 40 CFR 75 Appendix D, and recording the data using a monitoring component of the CEMS system required above. [Rules 62-4.070(3) and 62-212.400(BACT), F.A.C.]
25. Monthly Operations Summary: By the fifth calendar day of each month, the permittee shall record the following for each fuel in a written or electronic log for the gas turbine for the previous month of operation: hours of operation for the month and for the rolling 12-month total. Information recorded and stored as an electronic file shall be available for inspection and printing within at least three days of a request by the Department. The fuel consumption shall be monitored in accordance with the provisions of 40 CFR 75 Appendix D. [Rules 62-4.070(3) and 62-212.400(BACT), F.A.C.]
26. Fuel Sulfur Records: Compliance with the fuel sulfur limit for natural gas shall be demonstrated by keeping reports obtained from the vendor indicating the average sulfur content of the natural gas being supplied from the pipeline for each month of operation. Methods for determining the sulfur content of the natural gas shall be ASTM methods D4084-82, D4468-85, D5504-01, D6228-98 and D6667-01, D3246-81 or more recent versions. These methods shall be used to determine the fuel sulfur content in conjunction with the provisions of 40 CFR 75 Appendix D. [Rules 62-4.070(3), 62-212.400(BACT), F.A.C.]
27. Stack Test Reports: The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Compliance Authority on the results of each such test. The required test report shall be filed with the Compliance Authority as soon as practical but no later than 45 days after the last sampling run of each test is completed. The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Compliance Authority to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report shall provide the applicable information specified in Rule 62-297.310(8), F.A.C. and summarized in Appendix C. [Rule 62-297.310(8), F.A.C.]
28. CEMS RATA Reports: At least 15 days prior to conducting any Relative Accuracy Test Assessments (RATA) on a CEMS, the permittee shall notify the Compliance Authority of the schedule (letter, email, fax, or phone call). A summary of the RATA reports shall be provided upon written request of the Compliance Authority and in the SIP Excess Emissions Report as specified in Condition 29. [Rules 62-4.070(3) and 62-212.400(BACT), F.A.C.]
29. Excess Emissions Reporting
 - a. *Malfunction Notification*: If NO_x data will be excluded due to a malfunction, the permittee shall notify the Compliance Authority within one working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Compliance Authority may request a written summary report of the incident.
 - b. *SIP Excess Emissions Report*: Within 30 days following the end of each calendar quarter, the permittee shall submit a report to the Compliance Authority of the following for each gas turbine: a summary of the 24-hour NO_x compliance periods for the quarter; a summary of NO_x data excluded due to malfunctions for the quarter; a summary of the 12-month rolling CO emissions totals for the quarter; a summary of any RATA tests performed during the quarter; and a summary of the CEMS systems monitor availability for the quarter.

SECTION III - EMISSIONS UNITS SPECIFIC CONDITIONS

A. Simple Cycle Gas Turbine Units 4 and 5 (EU-011 and EU-012)

- (1) If four consecutive quarterly reports demonstrate compliance with the CEMS-based emissions standards, the reporting frequency may be reduced to semiannual reporting. As part of the fourth consecutive satisfactory quarterly report, the permittee shall provide written notification of its intent to reduce the reporting frequency to a semiannual basis. The notification shall include a statement that the units were in full compliance during the four consecutive quarters and that reporting will be reduced to a semiannual basis. Semiannual reports shall include above information required for each quarter in the semiannual period. The permittee shall continue to comply with all other record keeping and monitoring provisions.
- (2) If reports are being submitted on a semiannual basis and a unit is not in compliance with the CEMS-based emissions standards, the permittee shall immediately (within one day of detection) notify the Compliance Authority of the compliance status and reestablish quarterly reporting beginning with the current quarter. If compliance is reestablished for four consecutive quarters, semiannual reporting may resume as specified above.

c. *NSPS Excess Emissions Reports:* Within thirty (30) days following each calendar semiannual period, the permittee shall submit a report including any applicable periods of excess emissions and monitoring systems performance as defined in 40 CFR, Part 60, Subpart GG (Standards of Performance for Stationary Gas Turbines) that occurred during the previous semi-annual period to the Compliance Authority. *{Permitting Note: If there are no periods of excess emissions as defined in 40 CFR, Part 60, Subpart GG, a statement to that effect may be submitted with the SIP Quarterly Report to suffice for the NSPS Semi-Annual Report.}*

[Rules 62-4.070(3), 62-4.130, 62-204.800, 62-210.700(6) and 62-212.400(BACT), F.A.C.; and 40 CFR 60.7 and 60.334]

30. Annual Operating Report: The permittee shall submit an annual report that summarizes the actual operating hours and emissions from this facility. Annual operating reports shall be submitted to the Compliance Authority by March 1st of each year. [Rule 62-210.370(2), F.A.C.]
31. Startup/Shutdown Report: Within 30 days following the end of each calendar quarter, the permittee shall submit a report summarizing the following for each gas turbine: number of startups and shutdowns in the quarter; the duration of each startup and shutdown in the quarter; and the CO and NO_x mass emission rates (lb/hour) during each 1-hour block that includes a startup or shutdown. This temporary report shall be submitted to the Compliance Authority and the Bureau of Air Regulation only for the first four initial quarters of operation. [Rule 62-4.070(3), F.A.C.]

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SECTION IV. APPENDIX BD
FINAL BACT DETERMINATION AND EMISSION STANDARDS

Project Description

The applicant proposes to install two General Electric PG7241(FA) simple cycle gas turbine generators with a nominal output of 165 MW each at the existing Polk Power Station. Each gas turbine will fire natural gas as the exclusive fuel and will have a maximum operation of 4380 hours per year. In accordance with Rule 62-212.400, F.A.C., the existing plant is a major facility for the Prevention of Significant Deterioration (PSD) of Air Quality. The proposed project is subject to PSD preconstruction review for NO_x, PM/PM₁₀, and SO₂ emissions.

Air Pollution Control Equipment

Each gas turbine will be equipped with a dry low-NO_x combustion system capable of achieving low CO and NO_x emissions with the lean, pre-mixed combustion of natural gas. Each gas turbine will employ continuous emissions monitoring systems (CEMS) to continuously demonstrate compliance with the CO and NO_x emissions standards. As the only authorized fuel for the project, natural gas contains little ash or sulfur, which will minimize emissions of particulate matter (PM/PM₁₀), sulfuric acid mist (SAM), and sulfur dioxide (SO₂). Also, natural gas is readily combusted by the large frame gas turbines and will result in negligible emissions of volatile organic compounds (VOC).

Final BACT Determinations

In accordance with Rule 62-212.400, F.A.C., the Department establishes the following standards that represent the Best Available Control Technology (BACT).

Pollutant	Emission Standard ^c	Averaging Time	Compliance Method	Basis
CO ^a	99.0 tons (Emissions Cap)	12-month rolling total Both Units Combined	CEMS	Avoid PSD
	9.0 ppmvd @ 15% O ₂ 36.0 lb/hour	3-hour test avg.	Initial Only EPA Method 10 Test	
NO _x ^b	9.0 ppmvd @ 15% O ₂	24-hour block, CEMS	CEMS	BACT
	60.9 lb/hour	3-hour test avg.	EPA Method 7E Test	
PM/PM ₁₀ ^c	10 % Opacity	6-minute block	EPA Method 9 Test	BACT
	2 grains S/100 SCF of gas	N/A	Record Keeping	
SO ₂ ^d	2 grains S/100 SCF of gas	N/A	Record Keeping	BACT

- The permittee shall conduct an initial test to demonstrate compliance with the short-term (ppmvd @ 15% O₂ and lb/hour) CO emissions limits for the unit as constructed. Thereafter, continuous compliance shall be demonstrated with the CO emissions cap by data collected from the required continuous emissions monitoring system (CEMS).
- The permittee shall conduct an initial test to demonstrate compliance with the short-term (ppmvd @ 15% O₂ and lb/hour) NO_x emissions limits. Thereafter, continuous compliance shall be demonstrated with the 24-hour block NO_x emissions limit by data collected from the required continuous emissions monitoring system (CEMS).
- The fuel sulfur specifications combined with the efficient combustion design and operation of the gas turbine represents BACT for particulate matter (PM/PM₁₀) emissions. No stack tests are required. Compliance with the CO and visible emissions standards shall serve as indicators of good combustion. *{Permitting Note: Maximum expected PM/PM₁₀ emissions from each gas turbine are approximately 18 lb/hour.}*
- The fuel sulfur specifications effectively limit the potential emissions of sulfur dioxide (SO₂) from each gas turbine and represent BACT for SO₂ emissions. No stack tests are required. *{Permitting Note: Maximum expected SO₂ emissions from each gas turbine are approximately 9.5 lb/hour.}*
- The mass emission rate standards are based on a turbine inlet condition of 59° F and the higher heating value of natural gas. Mass emission rates may be adjusted from actual test conditions in accordance with the performance curves and/or

SECTION IV. APPENDIX BD

FINAL BACT DETERMINATION AND EMISSION STANDARDS

equations on file with the Department.

{Permitting Note: In combination with the annual restriction on hours of operation, the above emissions standards effectively limit annual potential emissions from both gas turbines to: 99 tons/year of CO, 267 tons/year of NOx, 79 tons/year of PM/PM₁₀, 42 tons/year of SO₂, 5 tons/year of SAM, and 12 tons/year of VOC.}

[Rule 62-212.400 (BACT), F.A.C.; Rule 62-4.070(3), F.A.C.]

The Department's technical review and rationale for the BACT determinations are presented in Technical Evaluation and Preliminary Determination issued concurrently with the draft permit for the original project. The final BACT determinations also consider comments received during public notice period as summarized in the Final Determination issued concurrently with the Final Permit.

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SECTION IV. APPENDIX BD
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[Rule 62-212.400 (BACT), F.A.C.; Rule 62-4.070(3), F.A.C.]

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SECTION IV. APPENDIX C
COMMON STATE RULES

Unless otherwise specified in the permit, the following conditions apply to all emissions units and activities at the facility.

EMISSIONS AND CONTROLS

1. **Plant Operation - Problems:** If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by fire, wind or other cause, the permittee shall notify each Compliance Authority as soon as possible, but at least within one working day, excluding weekends and holidays. The notification shall include: pertinent information as to the cause of the problem; steps being taken to correct the problem and prevent future recurrence; and, where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with the conditions of this permit or the regulations. [Rule 62-4.130, F.A.C.]
2. **Circumvention:** The permittee shall not circumvent the air pollution control equipment or allow the emission of air pollutants without this equipment operating properly. [Rule 62-210.650, F.A.C.]
3. **Excess Emissions Allowed:** Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]
4. **Excess Emissions Prohibited:** Excess emissions caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure that may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]
5. **Excess Emissions - Notification:** In case of excess emissions resulting from malfunctions, the permittee shall notify the Department or the appropriate Local Program in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department. [Rule 62-210.700(6), F.A.C.]
6. **VOC or OS Emissions:** No person shall store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department. [Rule 62-296.320(1), F.A.C.]
7. **Objectionable Odor Prohibited:** No person shall cause, suffer, allow or permit the discharge of air pollutants, which cause or contribute to an objectionable odor. An "objectionable odor" means any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance. [Rules 62-296.320(2) and 62-210.200(203), F.A.C.]
8. **General Visible Emissions:** No person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity equal to or greater than 20 percent opacity. This regulation does not impose a specific testing requirement. [Rule 62-296.320(4)(b)1, F.A.C.]
9. **Unconfined Particulate Emissions:** During the construction period, unconfined particulate matter emissions shall be minimized by dust suppressing techniques such as covering and/or application of water or chemicals to the affected areas, as necessary. [Rule 62-296.320(4)(c), F.A.C.]

GENERAL COMPLIANCE TESTING REQUIREMENTS

The focal point of a compliance test is the stack or duct which vents process and/or combustion gases and air pollutants from an emissions unit into the ambient air. [Rule 62-297.310, F.A.C.]

10. **Required Number of Test Runs:** For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured; provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five-day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five-day period allowed for the test, the Secretary or his or her designee may accept the results of two complete runs as proof of compliance, provided that the arithmetic mean of the two complete runs is at least 20% below the allowable emission limiting standard. [Rule 62-297.310(1), F.A.C.]

SECTION IV. APPENDIX C
COMMON STATE RULES

11. Operating Rate During Testing: Testing of emissions shall be conducted with the emissions unit operating at permitted capacity. If it is impractical to test at permitted capacity, an emissions unit may be tested at less than the maximum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test rate until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. [Rule 62-297.310(2), F.A.C.]
12. Calculation of Emission Rate: For each emissions performance test, the indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule. [Rule 62-297.310(3), F.A.C.]
13. Applicable Test Procedures [Rule 62-297.310(4), F.A.C.]
 - a. *Required Sampling Time.*
 - (1) Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.
 - (2) *Opacity Compliance Tests.* When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:
 - (a) For batch, cyclical processes, or other operations which are normally completed within less than the minimum observation period and do not recur within that time, the period of observation shall be equal to the duration of the batch cycle or operation completion time.
 - (b) The observation period for special opacity tests that are conducted to provide data to establish a surrogate standard pursuant to Rule 62-297.310(5)(k), F.A.C., Waiver of Compliance Test Requirements, shall be established as necessary to properly establish the relationship between a proposed surrogate standard and an existing mass emission limiting standard.
 - (c) The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.
 - b. *Minimum Sample Volume.* Unless otherwise specified in the applicable rule or test method, the minimum sample volume per run shall be 25 dry standard cubic feet.
 - c. *Calibration of Sampling Equipment.* Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1, F.A.C.
 - d. *Calibration of Sampling Equipment.* Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1.
 - e. *Allowed Modification to EPA Method 5.* When EPA Method 5 is required, the following modification is allowed: the heated filter may be separated from the impingers by a flexible tube.
14. Determination of Process Variables [Rule 62-297.310(5), F.A.C.]
 - a. *Required Equipment.* The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.
 - b. *Accuracy of Equipment.* Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.

SECTION IV. APPENDIX C**COMMON STATE RULES**

15. Sampling Facilities: The permittee shall install permanent stack sampling ports and provide sampling facilities that meet the requirements of Rule 62-297.310(6), F.A.C. Sampling facilities include sampling ports, work platforms, access to work platforms, electrical power, and sampling equipment support. All stack sampling facilities must also comply with all applicable Occupational Safety and Health Administration (OSHA) Safety and Health Standards described in 29 CFR Part 1910, Subparts D and E. [Rule 62-297.310(6), F.A.C.]
- a. *Permanent Test Facilities*. The owner or operator of an emissions unit for which a compliance test, other than a visible emissions test, is required on at least an annual basis, shall install and maintain permanent stack sampling facilities.
 - b. *Temporary Test Facilities*. The owner or operator of an emissions unit that is not required to conduct a compliance test on at least an annual basis may use permanent or temporary stack sampling facilities. If the owner chooses to use temporary sampling facilities on an emissions unit, and the Department elects to test the unit, such temporary facilities shall be installed on the emissions unit within 5 days of a request by the Department and remain on the emissions unit until the test is completed.
 - c. *Sampling Ports*.
 - (1) All sampling ports shall have a minimum inside diameter of 3 inches.
 - (2) The ports shall be capable of being sealed when not in use.
 - (3) The sampling ports shall be located in the stack at least 2 stack diameters or equivalent diameters downstream and at least 0.5 stack diameter or equivalent diameter upstream from any fan, bend, constriction or other flow disturbance.
 - (4) For emissions units for which a complete application to construct has been filed prior to December 1, 1980, at least two sampling ports, 90 degrees apart, shall be installed at each sampling location on all circular stacks that have an outside diameter of 15 feet or less. For stacks with a larger diameter, four sampling ports, each 90 degrees apart, shall be installed. For emissions units for which a complete application to construct is filed on or after December 1, 1980, at least two sampling ports, 90 degrees apart, shall be installed at each sampling location on all circular stacks that have an outside diameter of 10 feet or less. For stacks with larger diameters, four sampling ports, each 90 degrees apart, shall be installed. On horizontal circular ducts, the ports shall be located so that the probe can enter the stack vertically, horizontally or at a 45 degree angle.
 - (5) On rectangular ducts, the cross sectional area shall be divided into the number of equal areas in accordance with EPA Method 1. Sampling ports shall be provided which allow access to each sampling point. The ports shall be located so that the probe can be inserted perpendicular to the gas flow.
 - d. *Work Platforms*.
 - (1) Minimum size of the working platform shall be 24 square feet in area. Platforms shall be at least 3 feet wide.
 - (2) On circular stacks with 2 sampling ports, the platform shall extend at least 110 degrees around the stack.
 - (3) On circular stacks with more than two sampling ports, the work platform shall extend 360 degrees around the stack.
 - (4) All platforms shall be equipped with an adequate safety rail (ropes are not acceptable), toe board, and hinged floor-opening cover if ladder access is used to reach the platform. The safety rail directly in line with the sampling ports shall be removable so that no obstruction exists in an area 14 inches below each sample port and 6 inches on either side of the sampling port.
 - e. *Access to Work Platform*.
 - (1) Ladders to the work platform exceeding 15 feet in length shall have safety cages or fall arresters with a minimum of 3 compatible safety belts available for use by sampling personnel.
 - (2) Walkways over free-fall areas shall be equipped with safety rails and toe boards.
 - f. *Electrical Power*.
 - (1) A minimum of two 120-volt AC, 20-amp outlets shall be provided at the sampling platform within 20 feet of each sampling port.
 - (2) If extension cords are used to provide the electrical power, they shall be kept on the plant's property and be available immediately upon request by sampling personnel.

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g. Sampling Equipment Support.

- (1) A three-quarter inch eyebolt and an angle bracket shall be attached directly above each port on vertical stacks and above each row of sampling ports on the sides of horizontal ducts.
 - (a) The bracket shall be a standard 3 inch × 3 inch × one-quarter inch equal-legs bracket which is 1 and one-half inches wide. A hole that is one-half inch in diameter shall be drilled through the exact center of the horizontal portion of the bracket. The horizontal portion of the bracket shall be located 14 inches above the centerline of the sampling port.
 - (b) A three-eighth inch bolt which protrudes 2 inches from the stack may be substituted for the required bracket. The bolt shall be located 15 and one-half inches above the centerline of the sampling port.
 - (c) The three-quarter inch eyebolt shall be capable of supporting a 500 pound working load. For stacks that are less than 12 feet in diameter, the eyebolt shall be located 48 inches above the horizontal portion of the angle bracket. For stacks that are greater than or equal to 12 feet in diameter, the eyebolt shall be located 60 inches above the horizontal portion of the angle bracket. If the eyebolt is more than 120 inches above the platform, a length of chain shall be attached to it to bring the free end of the chain to within safe reach from the platform.
- (2) A complete monorail or dualrail arrangement may be substituted for the eyebolt and bracket.
- (3) When the sample ports are located in the top of a horizontal duct, a frame shall be provided above the port to allow the sample probe to be secured during the test.

16. Frequency of Compliance Tests. The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required. [Rule 62-297.310(7), F.A.C.]

a. General Compliance Testing.

1. The owner or operator of a new or modified emissions unit that is subject to an emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining an operation permit for such emissions unit.
2. For excess emission limitations for particulate matter specified in Rule 62-210.700, F.A.C., a compliance test shall be conducted annually while the emissions unit is operating under soot blowing conditions in each federal fiscal year during which soot blowing is part of normal emissions unit operation, except that such test shall not be required in any federal fiscal year in which a fossil fuel steam generator does not burn liquid and/or solid fuel for more than 400 hours other than during startup.
3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to sub-subparagraph 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:
 - (a) Did not operate; or
 - (b) In the case of a fuel burning emissions unit, burned liquid and/or solid fuel for a total of ~~no more~~ more than 400 hours,
4. During each federal fiscal year (October 1 – September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:
 - (a) a. Visible emissions, if there is an applicable standard;
 - (b) b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; or 100 tons per year or more of any other regulated air pollutant; and
 - (c) c. Each NESHAP pollutant, if there is an applicable emission standard.

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5. An annual compliance test for particulate matter emissions shall not be required for any fuel burning emissions unit that, in a federal fiscal year, does not burn liquid and/or solid fuel, other than during startup, for a total of more than 400 hours.
6. For fossil fuel steam generators on a semi-annual particulate matter emission compliance testing schedule, a compliance test shall not be required for any six-month period in which liquid and/or solid fuel is not burned for more than 200 hours other than during startup.
7. For emissions units electing to conduct particulate matter emission compliance testing quarterly pursuant to paragraph 62-296.405(2)(a), F.A.C., a compliance test shall not be required for any quarter in which liquid and/or solid fuel is not burned for more than 100 hours other than during startup.
8. Any combustion turbine that does not operate for more than 400 hours per year shall conduct a visible emissions compliance test once per each five-year period, coinciding with the term of its air operation permit.
9. The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.
10. An annual compliance test conducted for visible emissions shall not be required for units exempted from air permitting pursuant to subsection 62-210.300(3), F.A.C.; units determined to be insignificant pursuant to subparagraph 62-213.300(2)(a)1., F.A.C., or paragraph 62-213.430(6)(b), F.A.C.; or units permitted under the General Permit provisions in paragraph 62-210.300(4)(a) or Rule 62-213.300, F.A.C., unless the general permit specifically requires such testing.
- b. *Special Compliance Tests.* When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it shall require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.
- c. *Waiver of Compliance Test Requirements.* If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of paragraph 62-297.310(7)(b), F.A.C., shall apply.

RECORDS AND REPORTS

17. Test Reports [Rule 62-297.310(8), F.A.C.]

- a. The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test.
- b. The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed.
- c. The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information.
 1. The type, location, and designation of the emissions unit tested.
 2. The facility at which the emissions unit is located.
 3. The owner or operator of the emissions unit.
 4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
 5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.

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6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
8. The date, starting time and duration of each sampling run.
9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
10. The number of points sampled and configuration and location of the sampling plane.
11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
12. The type, manufacturer and configuration of the sampling equipment used.
13. Data related to the required calibration of the test equipment.
14. Data on the identification, processing and weights of all filters used.
15. Data on the types and amounts of any chemical solutions used.
16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
18. All measured and calculated data required to be determined by each applicable test procedure for each run.
19. The detailed calculations for one run that relate the collected data to the calculated emission rate.
20. The applicable emission standard and the resulting maximum allowable emission rate for the emissions unit plus the test result in the same form and unit of measure.
21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

RECORDS AND REPORTS

18. Records Retention: All measurements, records, and other data required by this permit shall be documented in a permanent, legible format and retained for at least five (5) years following the date on which such measurements, records, or data are recorded. Records shall be made available to the Department upon request. [Rules 62-4.160(14) and 62-213.440(1)(b)2, F.A.C.]
19. Annual Operating Report: The permittee shall submit an annual report that summarizes the actual operating rates and emissions from this facility. Annual operating reports shall be submitted to the Compliance Authority by March 1st of each year. [Rule 62-210.370(2), F.A.C.]

SECTION IV. APPENDIX GC
CONSTRUCTION PERMIT GENERAL CONDITIONS

The permittee shall comply with the following general conditions from Rule 62-4.160, F.A.C.

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey and vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:
 - a. Have access to and copy and records that must be kept under the conditions of the permit;
 - b. Inspect the facility, equipment, practices, or operations regulated or required under this permit, and,
 - c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
 - a. A description of and cause of non-compliance; and
 - b. The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida

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CONSTRUCTION PERMIT GENERAL CONDITIONS

Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.
11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
12. This permit or a copy thereof shall be kept at the work site of the permitted activity.
13. This permit also constitutes:
 - a. Determination of Best Available Control Technology;
 - b. Determination of Prevention of Significant Deterioration; and
 - c. Compliance with New Source Performance Standards.
14. The permittee shall comply with the following:
 - a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
 - b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application or this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
 - c. Records of monitoring information shall include:
 - a. The date, exact place, and time of sampling or measurements;
 - b. The person responsible for performing the sampling or measurements;
 - c. The dates analyses were performed;
 - d. The person responsible for performing the analyses;
 - e. The analytical techniques or methods used; and
 - f. The results of such analyses.
15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

SECTION IV. APPENDIX GG

NSPS SUBPART GG – REQUIREMENTS FOR GAS TURBINES

Simple cycle gas turbine Units 4 and 5 (Emissions Units 011 and 012) are subject to the following applicable federal New Source Performance Standards (NSPS) in 40 CFR 60.

SUBPART A - GENERAL PROVISIONS

40 CFR 60.7, Notification and Record Keeping

40 CFR 60.8, Performance Tests

40 CFR 60.11, Compliance with Standards and Maintenance Requirements

40 CFR 60.12, Circumvention

40 CFR 60.13, Monitoring Requirements

40 CFR 60.19 General Notification and Reporting Requirements

SUBPART GG – STATIONARY GAS TURBINES

60.330 Applicability and designation of affected facility.

- (a) The provisions of this subpart are applicable to the following affected facilities: All stationary gas turbines with a heat input at peak load equal to or greater than 10.7 gigajoules (10 million Btu) per hour, based on the lower heating value of the fuel fired.
- (b) Any facility under paragraph (a) of this section which commences construction, modification, or reconstruction after October 3, 1977, is subject to the requirements of this part except as provided in paragraphs (e) and (j) of §60.332. [44 FR 52798, Sept. 10, 1979, as amended at 52 FR 42434, Nov. 5, 1987; 65 FR 61759, Oct. 17, 2000]

60.331 Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Act and in subpart A of this part.

- (a) Stationary gas turbine means any simple cycle gas turbine, regenerative cycle gas turbine or any gas turbine portion of a combined cycle steam/electric generating system that is not self propelled. It may, however, be mounted on a vehicle for portability.
- (b) Simple cycle gas turbine means any stationary gas turbine which does not recover heat from the gas turbine exhaust gases to preheat the inlet combustion air to the gas turbine, or which does not recover heat from the gas turbine exhaust gases to heat water or generate steam.
- (c) Regenerative cycle gas turbine means any stationary gas turbine which recovers heat from the gas turbine exhaust gases to preheat the inlet combustion air to the gas turbine.
- (d) Combined cycle gas turbine means any stationary gas turbine which recovers heat from the gas turbine exhaust gases to heat water or generate steam.
- (e) Emergency gas turbine means any stationary gas turbine which operates as a mechanical or electrical power source only when the primary power source for a facility has been rendered inoperable by an emergency situation.
- (f) Ice fog means an atmospheric suspension of highly reflective ice crystals.
- (g) ISO standard day conditions means 288 degrees Kelvin, 60 percent relative humidity and 101.3 kilopascals pressure.
- (h) Efficiency means the gas turbine manufacturer's rated heat rate at peak load in terms of heat input per unit of power output based on the lower heating value of the fuel.
- (i) Peak load means 100 percent of the manufacturer's design capacity of the gas turbine at ISO standard day conditions.
- (j) Base load means the load level at which a gas turbine is normally operated.
- (k) Fire-fighting turbine means any stationary gas turbine that is used solely to pump water for extinguishing fires.
- (l) Turbines employed in oil/gas production or oil/gas transportation means any stationary gas turbine used to provide power to extract crude oil/natural gas from the earth or to move crude oil/natural gas, or products refined from these substances through pipelines.
- (m) A Metropolitan Statistical Area or MSA as defined by the Department of Commerce.

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NSPS SUBPART GG – REQUIREMENTS FOR GAS TURBINES

- (n) Offshore platform gas turbines means any stationary gas turbine located on a platform in an ocean.
- (o) Garrison facility means any permanent military installation.
- (p) Gas turbine model means a group of gas turbines having the same nominal air flow, combustor inlet pressure, combustor inlet temperature, firing temperature, turbine inlet temperature and turbine inlet pressure.
- (q) Electric utility stationary gas turbine means any stationary gas turbine constructed for the purpose of supplying more than one-third of its potential electric output capacity to any utility power distribution system for sale.
- (r) Emergency fuel is a fuel fired by a gas turbine only during circumstances, such as natural gas supply curtailment or breakdown of delivery system, that make it impossible to fire natural gas in the gas turbine.
- (s) Unit operating hour means a clock hour during which any fuel is combusted in the affected unit. If the unit combusts fuel for the entire clock hour, it is considered to be a full unit operating hour. If the unit combusts fuel for only part of the clock hour, it is considered to be a partial unit operating hour.
- (t) Excess emissions means a specified averaging period over which either:
 - (1) The NOX emissions are higher than the applicable emission limit in §60.332;
 - (2) The total sulfur content of the fuel being combusted in the affected facility exceeds the limit specified in §60.333; or
 - (3) The recorded value of a particular monitored parameter is outside the acceptable range specified in the parameter monitoring plan for the affected unit.
- (u) Natural gas means a naturally occurring fluid mixture of hydrocarbons (e.g., methane, ethane, or propane) produced in geological formations beneath the Earth's surface that maintains a gaseous state at standard atmospheric temperature and pressure under ordinary conditions. Natural gas contains 20.0 grains or less of total sulfur per 100 standard cubic feet. Equivalents of this in other units are as follows: 0.068 weight percent total sulfur, 680 parts per million by weight (ppmw) total sulfur, and 338 parts per million by volume (ppmv) at 20 degrees Celsius total sulfur. Additionally, natural gas must either be composed of at least 70 percent methane by volume or have a gross calorific value between 950 and 1100 British thermal units (Btu) per standard cubic foot. Natural gas does not include the following gaseous fuels: landfill gas, digester gas, refinery gas, sour gas, blast furnace gas, coal-derived gas, producer gas, coke oven gas, or any gaseous fuel produced in a process which might result in highly variable sulfur content or heating value.
- (v) Duct burner means a device that combusts fuel and that is placed in the exhaust duct from another source, such as a stationary gas turbine, internal combustion engine, kiln, etc., to allow the firing of additional fuel to heat the exhaust gases before the exhaust gases enter a heat recovery steam generating unit.
- (w) Lean premix stationary combustion turbine means any stationary combustion turbine where the air and fuel are thoroughly mixed to form a lean mixture for combustion in the combustor. Mixing may occur before or in the combustion chamber. A unit which is capable of operating in both lean premix and diffusion flame modes is considered a lean premix stationary combustion turbine when it is in the lean premix mode, and it is considered a diffusion flame stationary combustion turbine when it is in the diffusion flame mode.
- (x) Diffusion flame stationary combustion turbine means any stationary combustion turbine where fuel and air are injected at the combustor and are mixed only by diffusion prior to ignition. A unit which is capable of operating in both lean premix and diffusion flame modes is considered a lean premix stationary combustion turbine when it is in the lean premix mode, and it is considered a diffusion flame stationary combustion turbine when it is in the diffusion flame mode.
- (y) Unit operating day means a 24-hour period between 12:00 midnight and the following midnight during which any fuel is combusted at any time in the unit. It is not necessary for fuel to be combusted continuously for the entire 24-hour period.

[44 FR 52798, Sept. 10, 1979, as amended at 47 FR 3770, Jan. 27, 1982; 65 FR 61759, Oct. 17, 2000; 69 FR 41359, July 8, 2004]

60.332 Standard for nitrogen oxides.

- (a) On and after the date on which the performance test required by §60.8 is completed, every owner or operator subject to the provisions of this subpart as specified in paragraphs (b), (c), and (d) of this section shall comply with one of the following, except as provided in paragraphs (e), (f), (g), (h), (i), (j), (k), and (l) of this section.

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NSPS SUBPART GG – REQUIREMENTS FOR GAS TURBINES

- (1) No owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any stationary gas turbine, any gases which contain nitrogen oxides in excess of:

$$STD = 0.0075 \frac{(14.4)}{Y} + F$$

where:

STD = allowable ISO corrected (if required as given in §60.335(b)(1)) NOX emission concentration (percent by volume at 15 percent oxygen and on a dry basis),

Y = manufacturer's rated heat rate at manufacturer's rated load (kilojoules per watt hour) or, actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the facility. The value of Y shall not exceed 14.4 kilojoules per watt hour, and

F = NOX emission allowance for fuel-bound nitrogen as defined in paragraph (a)(4) of this section.

- (2) No owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any stationary gas turbine, any gases which contain nitrogen oxides in excess of:

$$STD = 0.0150 \frac{(14.4)}{Y} + F$$

where:

STD = allowable ISO corrected (if required as given in §60.335(b)(1)) NOX emission concentration (percent by volume at 15 percent oxygen and on a dry basis),

Y = manufacturer's rated heat rate at manufacturer's rated peak load (kilojoules per watt hour), or actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the facility. The value of Y shall not exceed 14.4 kilojoules per watt hour, and

F = NOX emission allowance for fuel-bound nitrogen as defined in paragraph (a)(4) of this section.

- (3) The use of F in paragraphs (a)(1) and (2) of this section is optional. That is, the owner or operator may choose to apply a NOX allowance for fuel-bound nitrogen and determine the appropriate F-value in accordance with paragraph (a)(4) of this section or may accept an F-value of zero.
- (4) If the owner or operator elects to apply a NOX emission allowance for fuel-bound nitrogen, F shall be defined according to the nitrogen content of the fuel during the most recent performance test required under §60.8 as follows:

Fuel-bound nitrogen (percent by weight)	F (NOX percent by volume)
N [le] 0.015	0
0.015 < N[le] 0.1	0.04(N)
0.1 < N [le] 0.25	0.004+0.0067(N-0.1)
N > 0.25	0.005

Where:

N = the nitrogen content of the fuel (percent by weight).

or:

Manufacturers may develop and submit to EPA custom fuel-bound nitrogen allowances for each gas turbine model they manufacture. These fuel-bound nitrogen allowances shall be substantiated with data and must be approved for use by the Administrator before the initial performance test required by §60.8. Notices of approval of custom fuel-bound nitrogen allowances will be published in the Federal Register.

- (b) Electric utility stationary gas turbines with a heat input at peak load greater than 107.2 gigajoules per hour (100 million Btu/hour) based on the lower heating value of the fuel fired shall comply with the provisions of paragraph (a)(1) of this section.

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- (c) Stationary gas turbines with a heat input at peak load equal to or greater than 10.7 gigajoules per hour (10 million Btu/hour) but less than or equal to 107.2 gigajoules per hour (100 million Btu/hour) based on the lower heating value of the fuel fired, shall comply with the provisions of paragraph (a)(2) of this section.
- (d) Stationary gas turbines with a manufacturer's rated base load at ISO conditions of 30 megawatts or less except as provided in §60.332(b) shall comply with paragraph (a)(2) of this section.
- (e) Stationary gas turbines with a heat input at peak load equal to or greater than 10.7 gigajoules per hour (10 million Btu/hour) but less than or equal to 107.2 gigajoules per hour (100 million Btu/hour) based on the lower heating value of the fuel fired and that have commenced construction prior to October 3, 1982 are exempt from paragraph (a) of this section.
- (f) Stationary gas turbines using water or steam injection for control of NOX emissions are exempt from paragraph (a) when ice fog is deemed a traffic hazard by the owner or operator of the gas turbine.
- (g) Emergency gas turbines, military gas turbines for use in other than a garrison facility, military gas turbines installed for use as military training facilities, and fire fighting gas turbines are exempt from paragraph (a) of this section.
- (h) Stationary gas turbines engaged by manufacturers in research and development of equipment for both gas turbine emission control techniques and gas turbine efficiency improvements are exempt from paragraph (a) on a case-by-case basis as determined by the Administrator.
- (i) Exemptions from the requirements of paragraph (a) of this section will be granted on a case-by-case basis as determined by the Administrator in specific geographical areas where mandatory water restrictions are required by governmental agencies because of drought conditions. These exemptions will be allowed only while the mandatory water restrictions are in effect.
- (j) Stationary gas turbines with a heat input at peak load greater than 107.2 gigajoules per hour that commenced construction, modification, or reconstruction between the dates of October 3, 1977, and January 27, 1982, and were required in the September 10, 1979, Federal Register (44 FR 52792) to comply with paragraph (a)(1) of this section, except electric utility stationary gas turbines, are exempt from paragraph (a) of this section.
- (k) Stationary gas turbines with a heat input greater than or equal to 10.7 gigajoules per hour (10 million Btu/hour) when fired with natural gas are exempt from paragraph (a)(2) of this section when being fired with an emergency fuel.
- (l) Regenerative cycle gas turbines with a heat input less than or equal to 107.2 gigajoules per hour (100 million Btu/hour) are exempt from paragraph (a) of this section.

[44 FR 52798, Sept. 10, 1979, as amended at 47 FR 3770, Jan. 27, 1982; 65 FR 61759, Oct. 17, 2000; 69 FR 41359, July 8, 2004]

60.333 Standard for sulfur dioxide.

On and after the date on which the performance test required to be conducted by §60.8 is completed, every owner or operator subject to the provision of this subpart shall comply with one or the other of the following conditions:

- (a) No owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any stationary gas turbine any gases which contain sulfur dioxide in excess of 0.015 percent by volume at 15 percent oxygen and on a dry basis.
- (b) No owner or operator subject to the provisions of this subpart shall burn in any stationary gas turbine any fuel which contains total sulfur in excess of 0.8 percent by weight (8000 ppmw).

[44 FR 52798, Sept. 10, 1979, as amended at 69 FR 41360, July 8, 2004]

60.334 Monitoring of operations.

- (a) Except as provided in paragraph (b) of this section, the owner or operator of any stationary gas turbine subject to the provisions of this subpart and using water or steam injection to control NOX emissions shall install, calibrate, maintain and operate a continuous monitoring system to monitor and record the fuel consumption and the ratio of water or steam to fuel being fired in the turbine.
- (b) The owner or operator of any stationary gas turbine that commenced construction, reconstruction or modification after October 3, 1977, but before July 8, 2004, and which uses water or steam injection to control NOX emissions may, as an alternative to operating the continuous monitoring system described in paragraph (a) of this section, install, certify, maintain, operate, and quality-assure a continuous emission monitoring system (CEMS) consisting of NOX and O2 monitors. As an alternative, a CO2 monitor may be used to adjust the measured NOX concentrations to 15 percent O2

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by either converting the CO₂ hourly averages to equivalent O₂ concentrations using Equation F-14a or F-14b in appendix F to part 75 of this chapter and making the adjustments to 15 percent O₂, or by using the CO₂ readings directly to make the adjustments, as described in Method 20. If the option to use a CEMS is chosen, the CEMS shall be installed, certified, maintained and operated as follows:

- (1) Each CEMS must be installed and certified according to PS 2 and 3 (for diluent) of 40 CFR part 60, appendix B, except the 7-day calibration drift is based on unit operating days, not calendar days. Appendix F, Procedure 1 is not required. The relative accuracy test audit (RATA) of the NO_x and diluent monitors may be performed individually or on a combined basis, i.e., the relative accuracy tests of the CEMS may be performed either:
 - (i) On a ppm basis (for NO_x) and a percent O₂ basis for oxygen; or
 - (ii) On a ppm at 15 percent O₂ basis; or
 - (iii) On a ppm basis (for NO_x) and a percent CO₂ basis (for a CO₂ monitor that uses the procedures in Method 20 to correct the NO_x data to 15 percent O₂).
- (2) As specified in §60.13(e)(2), during each full unit operating hour, each monitor must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour, to validate the hour. For partial unit operating hours, at least one valid data point must be obtained for each quadrant of the hour in which the unit operates. For unit operating hours in which required quality assurance and maintenance activities are performed on the CEMS, a minimum of two valid data points (one in each of two quadrants) are required to validate the hour.
- (3) For purposes of identifying excess emissions, CEMS data must be reduced to hourly averages as specified in §60.13(h).
 - (i) For each unit operating hour in which a valid hourly average, as described in paragraph (b)(2) of this section, is obtained for both NO_x and diluent, the data acquisition and handling system must calculate and record the hourly NO_x emissions in the units of the applicable NO_x emission standard under §60.332(a), i.e., percent NO_x by volume, dry basis, corrected to 15 percent O₂ and International Organization for Standardization (ISO) standard conditions (if required as given in §60.335(b)(1)). For any hour in which the hourly average O₂ concentration exceeds 19.0 percent O₂, a diluent cap value of 19.0 percent O₂ may be used in the emission calculations.
 - (ii) A worst case ISO correction factor may be calculated and applied using historical ambient data. For the purpose of this calculation, substitute the maximum humidity of ambient air (H_o), minimum ambient temperature (T_a), and minimum combustor inlet absolute pressure (P_o) into the ISO correction equation.
 - (iii) If the owner or operator has installed a NO_x CEMS to meet the requirements of part 75 of this chapter, and is continuing to meet the ongoing requirements of part 75 of this chapter, the CEMS may be used to meet the requirements of this section, except that the missing data substitution methodology provided for at 40 CFR part 75, subpart D, is not required for purposes of identifying excess emissions. Instead, periods of missing CEMS data are to be reported as monitor downtime in the excess emissions and monitoring performance report required in §60.7(c).
- (c) For any turbine that commenced construction, reconstruction or modification after October 3, 1977, but before July 8, 2004, and which does not use steam or water injection to control NO_x emissions, the owner or operator may, for purposes of determining excess emissions, use a CEMS that meets the requirements of paragraph (b) of this section. Also, if the owner or operator has previously submitted and received EPA or local permitting authority approval of a petition for an alternative procedure of continuously monitoring compliance with the applicable NO_x emission limit under §60.332, that approved procedure may continue to be used, even if it deviates from paragraph (a) of this section.
- (d) The owner or operator of any new turbine constructed after July 8, 2004, and which uses water or steam injection to control NO_x emissions may elect to use either the requirements in paragraph (a) of this section for continuous water or steam to fuel ratio monitoring or may use a NO_x CEMS installed, certified, operated, maintained, and quality-assured as described in paragraph (b) of this section.
- (e) The owner or operator of any new turbine that commences construction after July 8, 2004, and which does not use water or steam injection to control NO_x emissions may elect to use a NO_x CEMS installed, certified, operated, maintained, and quality-assured as described in paragraph (b) of this section. An acceptable alternative to installing a CEMS is described in paragraph (f) of this section.

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- (f) The owner or operator of a new turbine who elects not to install a CEMS under paragraph (e) of this section, may instead perform continuous parameter monitoring as follows:
- (1) For a diffusion flame turbine without add-on selective catalytic reduction controls (SCR), the owner or operator shall define at least four parameters indicative of the unit's NOX formation characteristics and shall monitor these parameters continuously.
 - (2) For any lean premix stationary combustion turbine, the owner or operator shall continuously monitor the appropriate parameters to determine whether the unit is operating in the lean premixed (low-NOX) combustion mode.
 - (3) For any turbine that uses SCR to reduce NOX emissions, the owner or operator shall continuously monitor appropriate parameters to verify the proper operation of the emission controls.
 - (4) For affected units that are also regulated under part 75 of this chapter, if the owner or operator elects to monitor NOX emission rate using the methodology in appendix E to part 75 of this chapter, or the low mass emissions methodology in §75.19 of this chapter, the requirements of this paragraph (f) may be met by performing the parametric monitoring described in section 2.3 of appendix E or in §75.19(c)(1)(iv)(H) of this chapter.
- (g) The steam or water to fuel ratio or other parameters that are continuously monitored as described in paragraphs (a), (d) or (f) of this section shall be monitored during the performance test required under §60.8, to establish acceptable values and ranges. The owner or operator may supplement the performance test data with engineering analyses, design specifications, manufacturer's recommendations and other relevant information to define the acceptable parametric ranges more precisely. The owner or operator shall develop and keep on-site a parameter monitoring plan which explains the procedures used to document proper operation of the NOX emission controls. The plan shall include the parameter(s) monitored and the acceptable range(s) of the parameter(s) as well as the basis for designating the parameter(s) and acceptable range(s). Any supplemental data such as engineering analyses, design specifications, manufacturer's recommendations and other relevant information shall be included in the monitoring plan. For affected units that are also subject to part 75 of this chapter and that use the low mass emissions methodology in §75.19 of this chapter or the NOX emission measurement methodology in appendix E to part 75, the owner or operator may meet the requirements of this paragraph by developing and keeping on-site (or at a central location for unmanned facilities) a quality-assurance plan, as described in §75.19 (e)(5) or in section 2.3 of appendix E and section 1.3.6 of appendix B to part 75 of this chapter.
- (h) The owner or operator of any stationary gas turbine subject to the provisions of this subpart:
- (1) Shall monitor the total sulfur content of the fuel being fired in the turbine, except as provided in paragraph (h)(3) of this section. The sulfur content of the fuel must be determined using total sulfur methods described in §60.335(b)(10). Alternatively, if the total sulfur content of the gaseous fuel during the most recent performance test was less than 0.4 weight percent (4000 ppmw), ASTM D4084–82, 94, D5504–01, D6228–98, or Gas Processors Association Standard 2377–86 (all of which are incorporated by reference-see §60.17), which measure the major sulfur compounds may be used; and
 - (2) Shall monitor the nitrogen content of the fuel combusted in the turbine, if the owner or operator claims an allowance for fuel bound nitrogen (i.e., if an F-value greater than zero is being or will be used by the owner or operator to calculate STD in §60.332). The nitrogen content of the fuel shall be determined using methods described in §60.335(b)(9) or an approved alternative.
 - (3) Notwithstanding the provisions of paragraph (h)(1) of this section, the owner or operator may elect not to monitor the total sulfur content of the gaseous fuel combusted in the turbine, if the gaseous fuel is demonstrated to meet the definition of natural gas in §60.331(u), regardless of whether an existing custom schedule approved by the administrator for subpart GG requires such monitoring. The owner or operator shall use one of the following sources of information to make the required demonstration:
 - (i) The gas quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the gaseous fuel, specifying that the maximum total sulfur content of the fuel is 20.0 grains/100 scf or less; or
 - (ii) Representative fuel sampling data which show that the sulfur content of the gaseous fuel does not exceed 20 grains/100 scf. At a minimum, the amount of fuel sampling data specified in section 2.3.1.4 or 2.3.2.4 of appendix D to part 75 of this chapter is required.

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- (4) For any turbine that commenced construction, reconstruction or modification after October 3, 1977, but before July 8, 2004, and for which a custom fuel monitoring schedule has previously been approved, the owner or operator may, without submitting a special petition to the Administrator, continue monitoring on this schedule.
- (i) The frequency of determining the sulfur and nitrogen content of the fuel shall be as follows:
- (1) *Fuel oil.* For fuel oil, use one of the total sulfur sampling options and the associated sampling frequency described in sections 2.2.3, 2.2.4.1, 2.2.4.2, and 2.2.4.3 of appendix D to part 75 of this chapter (i.e., flow proportional sampling, daily sampling, sampling from the unit's storage tank after each addition of fuel to the tank, or sampling each delivery prior to combining it with fuel oil already in the intended storage tank). If an emission allowance is being claimed for fuel-bound nitrogen, the nitrogen content of the oil shall be determined and recorded once per unit operating day.
 - (2) *Gaseous fuel.* Any applicable nitrogen content value of the gaseous fuel shall be determined and recorded once per unit operating day. For owners and operators that elect not to demonstrate sulfur content using options in paragraph (h)(3) of this section, and for which the fuel is supplied without intermediate bulk storage, the sulfur content value of the gaseous fuel shall be determined and recorded once per unit operating day.
 - (3) *Custom schedules.* Notwithstanding the requirements of paragraph (i)(2) of this section, operators or fuel vendors may develop custom schedules for determination of the total sulfur content of gaseous fuels, based on the design and operation of the affected facility and the characteristics of the fuel supply. Except as provided in paragraphs (i)(3)(i) and (i)(3)(ii) of this section, custom schedules shall be substantiated with data and shall be approved by the Administrator before they can be used to comply with the standard in §60.333.
- (i) The two custom sulfur monitoring schedules set forth in paragraphs (i)(3)(i)(A) through (D) and in paragraph (i)(3)(ii) of this section are acceptable, without prior Administrative approval:
- (A) The owner or operator shall obtain daily total sulfur content measurements for 30 consecutive unit operating days, using the applicable methods specified in this subpart. Based on the results of the 30 daily samples, the required frequency for subsequent monitoring of the fuel's total sulfur content shall be as specified in paragraph (i)(3)(i)(B), (C), or (D) of this section, as applicable.
 - (B) If none of the 30 daily measurements of the fuel's total sulfur content exceeds 0.4 weight percent (4000 ppmw), subsequent sulfur content monitoring may be performed at 12 month intervals. If any of the samples taken at 12-month intervals has a total sulfur content between 0.4 and 0.8 weight percent (4000 and 8000 ppmw), follow the procedures in paragraph (i)(3)(i)(C) of this section. If any measurement exceeds 0.8 weight percent (8000 ppmw), follow the procedures in paragraph (i)(3)(i)(D) of this section.
 - (C) If at least one of the 30 daily measurements of the fuel's total sulfur content is between 0.4 and 0.8 weight percent (4000 and 8000 ppmw), but none exceeds 0.8 weight percent (8000 ppmw), then:
 - (1) Collect and analyze a sample every 30 days for three months. If any sulfur content measurement exceeds 0.8 weight percent (8000 ppmw), follow the procedures in paragraph (i)(3)(i)(D) of this section. Otherwise, follow the procedures in paragraph (i)(3)(i)(C)(2) of this section.
 - (2) Begin monitoring at 6-month intervals for 12 months. If any sulfur content measurement exceeds 0.8 weight percent (8000 ppmw), follow the procedures in paragraph (i)(3)(i)(D) of this section. Otherwise, follow the procedures in paragraph (i)(3)(i)(C)(3) of this section.
 - (3) Begin monitoring at 12-month intervals. If any sulfur content measurement exceeds 0.8 weight percent (8000 ppmw), follow the procedures in paragraph (i)(3)(i)(D) of this section. Otherwise, continue to monitor at this frequency.
 - (D) If a sulfur content measurement exceeds 0.8 weight percent (8000 ppmw), immediately begin daily monitoring according to paragraph (i)(3)(i)(A) of this section. Daily monitoring shall continue until 30 consecutive daily samples, each having a sulfur content no greater than 0.8 weight percent (8000 ppmw), are obtained. At that point, the applicable procedures of paragraph (i)(3)(i)(B) or (C) of this section shall be followed.
- (ii) The owner or operator may use the data collected from the 720-hour sulfur sampling demonstration described in section 2.3.6 of appendix D to part 75 of this chapter to determine a custom sulfur sampling schedule, as follows:

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- (A) If the maximum fuel sulfur content obtained from the 720 hourly samples does not exceed 20 grains/100 scf (i.e., the maximum total sulfur content of natural gas as defined in §60.331(u)), no additional monitoring of the sulfur content of the gas is required, for the purposes of this subpart.
 - (B) If the maximum fuel sulfur content obtained from any of the 720 hourly samples exceeds 20 grains/100 scf, but none of the sulfur content values (when converted to weight percent sulfur) exceeds 0.4 weight percent (4000 ppmw), then the minimum required sampling frequency shall be one sample at 12 month intervals.
 - (C) If any sample result exceeds 0.4 weight percent sulfur (4000 ppmw), but none exceeds 0.8 weight percent sulfur (8000 ppmw), follow the provisions of paragraph (i)(3)(i)(C) of this section.
 - (D) If the sulfur content of any of the 720 hourly samples exceeds 0.8 weight percent (8000 ppmw), follow the provisions of paragraph (i)(3)(i)(D) of this section.
- (j) For each affected unit required to continuously monitor parameters or emissions, or to periodically determine the fuel sulfur content or fuel nitrogen content under this subpart, the owner or operator shall submit reports of excess emissions and monitor downtime, in accordance with §60.7(c). Excess emissions shall be reported for all periods of unit operation, including startup, shutdown and malfunction. For the purpose of reports required under §60.7(c), periods of excess emissions and monitor downtime that shall be reported are defined as follows:
- (1) Nitrogen oxides.
 - (i) For turbines using water or steam to fuel ratio monitoring:
 - (A) An excess emission shall be any unit operating hour for which the average steam or water to fuel ratio, as measured by the continuous monitoring system, falls below the acceptable steam or water to fuel ratio needed to demonstrate compliance with §60.332, as established during the performance test required in §60.8. Any unit operating hour in which no water or steam is injected into the turbine shall also be considered an excess emission.
 - (B) A period of monitor downtime shall be any unit operating hour in which water or steam is injected into the turbine, but the essential parametric data needed to determine the steam or water to fuel ratio are unavailable or invalid.
 - (C) Each report shall include the average steam or water to fuel ratio, average fuel consumption, ambient conditions (temperature, pressure, and humidity), gas turbine load, and (if applicable) the nitrogen content of the fuel during each excess emission. You do not have to report ambient conditions if you opt to use the worst case ISO correction factor as specified in §60.334(b)(3)(ii), or if you are not using the ISO correction equation under the provisions of §60.335(b)(1).
 - (ii) If the owner or operator elects to take an emission allowance for fuel bound nitrogen, then excess emissions and periods of monitor downtime are as described in paragraphs (j)(1)(ii)(A) and (B) of this section.
 - (A) An excess emission shall be the period of time during which the fuel-bound nitrogen (N) is greater than the value measured during the performance test required in §60.8 and used to determine the allowance. The excess emission begins on the date and hour of the sample which shows that N is greater than the performance test value, and ends with the date and hour of a subsequent sample which shows a fuel nitrogen content less than or equal to the performance test value.
 - (B) A period of monitor downtime begins when a required sample is not taken by its due date. A period of monitor downtime also begins on the date and hour that a required sample is taken, if invalid results are obtained. The period of monitor downtime ends on the date and hour of the next valid sample.
 - (iii) For turbines using NOX and diluent CEMS:
 - (A) (A) An hour of excess emissions shall be any unit operating hour in which the 4-hour rolling average NOX concentration exceeds the applicable emission limit in §60.332(a)(1) or (2). For the purposes of this subpart, a "4-hour rolling average NOX concentration" is the arithmetic average of the average NOX concentration measured by the CEMS for a given hour (corrected to 15 percent O₂ and, if required under §60.335(b)(1), to ISO standard conditions) and the three unit operating hour average NOX concentrations immediately preceding that unit operating hour.

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- (B) A period of monitor downtime shall be any unit operating hour in which sufficient data are not obtained to validate the hour, for either NOX concentration or diluent (or both).
- (C) Each report shall include the ambient conditions (temperature, pressure, and humidity) at the time of the excess emission period and (if the owner or operator has claimed an emission allowance for fuel bound nitrogen) the nitrogen content of the fuel during the period of excess emissions. You do not have to report ambient conditions if you opt to use the worst case ISO correction factor as specified in §60.334(b)(3)(ii), or if you are not using the ISO correction equation under the provisions of §60.335(b)(1).
- (iv) For turbines required under paragraph (f) of this section to monitor combustion parameters or parameters that document proper operation of the NOX emission controls:
 - (A) An excess emission shall be a 4-hour rolling unit operating hour average in which any monitored parameter does not achieve the target value or is outside the acceptable range defined in the parameter monitoring plan for the unit.
 - (B) A period of monitor downtime shall be a unit operating hour in which any of the required parametric data are either not recorded or are invalid.
- (2) Sulfur dioxide. If the owner or operator is required to monitor the sulfur content of the fuel under paragraph (h) of this section:
 - (i) For samples of gaseous fuel and for oil samples obtained using daily sampling, flow proportional sampling, or sampling from the unit's storage tank, an excess emission occurs each unit operating hour included in the period beginning on the date and hour of any sample for which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8 weight percent and ending on the date and hour that a subsequent sample is taken that demonstrates compliance with the sulfur limit.
 - (ii) If the option to sample each delivery of fuel oil has been selected, the owner or operator shall immediately switch to one of the other oil sampling options (i.e., daily sampling, flow proportional sampling, or sampling from the unit's storage tank) if the sulfur content of a delivery exceeds 0.8 weight percent. The owner or operator shall continue to use one of the other sampling options until all of the oil from the delivery has been combusted, and shall evaluate excess emissions according to paragraph (j)(2)(i) of this section. When all of the fuel from the delivery has been burned, the owner or operator may resume using the as-delivered sampling option.
 - (iii) A period of monitor downtime begins when a required sample is not taken by its due date. A period of monitor downtime also begins on the date and hour of a required sample, if invalid results are obtained. The period of monitor downtime shall include only unit operating hours, and ends on the date and hour of the next valid sample.
- (3) Ice fog. Each period during which an exemption provided in §60.332(f) is in effect shall be reported in writing to the Administrator quarterly. For each period the ambient conditions existing during the period, the date and time the air pollution control system was deactivated, and the date and time the air pollution control system was reactivated shall be reported. All quarterly reports shall be postmarked by the 30th day following the end of each calendar quarter.
- (4) Emergency fuel. Each period during which an exemption provided in §60.332(k) is in effect shall be included in the report required in §60.7(c). For each period, the type, reasons, and duration of the firing of the emergency fuel shall be reported.
- (5) All reports required under §60.7(c) shall be postmarked by the 30th day following the end of each calendar quarter.

[44 FR 52798, Sept. 10, 1979, as amended at 47 FR 3770, Jan. 27, 1982; 65 FR 61759, Oct. 17, 2000; 69 FR 41360, July 8, 2004]

60.335 Test methods and procedures.

- (a) The owner or operator shall conduct the performance tests required in §60.8, using either
 - (1) EPA Method 20,
 - (2) ASTM D6522-00 (incorporated by reference, see §60.17), or
 - (3) EPA Method 7E and either EPA Method 3 or 3A in appendix A to this part, to determine NOX and diluent concentration.

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- (4) Sampling traverse points are to be selected following Method 20 or Method 1, (non-particulate procedures) and sampled for equal time intervals. The sampling shall be performed with a traversing single-hole probe or, if feasible, with a stationary multi-hole probe that samples each of the points sequentially. Alternatively, a multi-hole probe designed and documented to sample equal volumes from each hole may be used to sample simultaneously at the required points.
- (5) Notwithstanding paragraph (a)(4) of this section, the owner or operator may test at few points than are specified in Method 1 or Method 20 if the following conditions are met:
- (i) You may perform a stratification test for NOX and diluent pursuant to
 - (A) [Reserved]
 - (B) (B) The procedures specified in section 6.5.6.1(a) through (e) appendix A to part 75 of this chapter.
 - (ii) Once the stratification sampling is completed, the owner or operator may use the following alternative sample point selection criteria for the performance test:
 - (A) If each of the individual traverse point NOX concentrations, normalized to 15 percent O₂, is within ±10 percent of the mean normalized concentration for all traverse points, then you may use 3 points (located either 16.7, 50.0, and 83.3 percent of the way across the stack or duct, or, for circular stacks or ducts greater than 2.4 meters (7.8 feet) in diameter, at 0.4, 1.2, and 2.0 meters from the wall). The 3 points shall be located along the measurement line that exhibited the highest average normalized NOX concentration during the stratification test; or
 - (B) If each of the individual traverse point NOX concentrations, normalized to 15 percent O₂, is within ±5 percent of the mean normalized concentration for all traverse points, then you may sample at a single point, located at least 1 meter from the stack wall or at the stack centroid.
- (6) Other acceptable alternative reference methods and procedures are given in paragraph (c) of this section.
- (b) The owner or operator shall determine compliance with the applicable nitrogen oxides emission limitation in §60.332 and shall meet the performance test requirements of §60.8 as follows:
- (1) For each run of the performance test, the mean nitrogen oxides emission concentration (NOX_o) corrected to 15 percent O₂ shall be corrected to ISO standard conditions using the following equation. Notwithstanding this requirement, use of the ISO correction equation is optional for: Lean premix stationary combustion turbines; units used in association with heat recovery steam generators (HRSG) equipped with duct burners; and units equipped with add-on emission control devices:
$$\text{NOX} = (\text{NOX}_o)(\text{Pr}/\text{Po})^{0.5} e^{19} (\text{Ho} - 0.00633) (288^\circ\text{K}/\text{Ta})^{1.53}$$

Where:

 - NOX = emission concentration of NOX at 15 percent O₂ and ISO standard ambient conditions, ppm by volume, dry basis,
 - NOX_o = mean observed NOX concentration, ppm by volume, dry basis, at 15 percent O₂,
 - Pr = reference combustor inlet absolute pressure at 101.3 kilopascals ambient pressure, mm Hg,
 - Po = observed combustor inlet absolute pressure at test, mm Hg,
 - Ho = observed humidity of ambient air, g H₂O/g air,
 - e = transcendental constant, 2.718, and
 - Ta = ambient temperature, °K.
 - (2) The 3-run performance test required by §60.8 must be performed within ±5 percent at 30, 50, 75, and 90-to-100 percent of peak load or at four evenly-spaced load points in the normal operating range of the gas turbine, including the minimum point in the operating range and 90-to-100 percent of peak load, or at the highest achievable load point if 90-to-100 percent of peak load cannot be physically achieved in practice. If the turbine combusts both oil and gas as primary or backup fuels, separate performance testing is required for each fuel. Notwithstanding these requirements, performance testing is not required for any emergency fuel (as defined in §60.331).
 - (3) For a combined cycle turbine system with supplemental heat (duct burner), the owner or operator may elect to measure the turbine NOX emissions after the duct burner rather than directly after the turbine. If the owner or

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operator elects to use this alternative sampling location, the applicable NOX emission limit in §60.332 for the combustion turbine must still be met.

- (4) If water or steam injection is used to control NOX with no additional post-combustion NOX control and the owner or operator chooses to monitor the steam or water to fuel ratio in accordance with §60.334(a), then that monitoring system must be operated concurrently with each EPA Method 20, ASTM D6522-00 (incorporated by reference, see §60.17), or EPA Method 7E run and shall be used to determine the fuel consumption and the steam or water to fuel ratio necessary to comply with the applicable §60.332 NOX emission limit.
 - (5) If the owner operator elects to claim an emission allowance for fuel bound nitrogen as described in §60.332, then concurrently with each reference method run, a representative sample of the fuel used shall be collected and analyzed, following the applicable procedures described in §60.335(b)(9). These data shall be used to determine the maximum fuel nitrogen content for which the established water (or steam) to fuel ratio will be valid.
 - (6) If the owner or operator elects to install a CEMS, the performance evaluation of the CEMS may either be conducted separately (as described in paragraph (b)(7) of this section) or as part of the initial performance test of the affected unit.
 - (7) If the owner or operator elects to install and certify a NOX CEMS under §60.334(e), then the initial performance test required under §60.8 may be done in the following alternative manner:
 - (i) Perform a minimum of 9 reference method runs, with a minimum time per run of 21 minutes, at a single load level, between 90 and 100 percent of peak (or the highest physically achievable) load.
 - (ii) Use the test data both to demonstrate compliance with the applicable NOX emission limit under §60.332 and to provide the required reference method data for the RATA of the CEMS described under §60.334(b).
 - (iii) The requirement to test at three additional load levels is waived.
 - (8) If the owner or operator is required under §60.334(f) to monitor combustion parameters or parameters indicative of proper operation of NOX emission controls, the appropriate parameters shall be continuously monitored and recorded during each run of the initial performance test, to establish acceptable operating ranges, for purposes of the parameter monitoring plan for the affected unit, as specified in §60.334(g).
 - (9) To determine the fuel bound nitrogen content of fuel being fired (if an emission allowance is claimed for fuel bound nitrogen), the owner or operator may use equipment and procedures meeting the requirements of:
 - (i) For liquid fuels, ASTM D2597-94 (Reapproved 1999), D6366-99, D4629-02, D5762-02 (all of which are incorporated by reference, see §60.17); or
 - (ii) For gaseous fuels, shall use analytical methods and procedures that are accurate to within 5 percent of the instrument range and are approved by the Administrator.
 - (10) If the owner or operator is required under §60.334(i)(1) or (3) to periodically determine the sulfur content of the fuel combusted in the turbine, a minimum of three fuel samples shall be collected during the performance test. Analyze the samples for the total sulfur content of the fuel using:
 - (i) For liquid fuels, ASTM D129-00, D2622-98, D4294-02, D1266-98, D5453-00 or D1552-01 (all of which are incorporated by reference, see §60.17); or
 - (ii) For gaseous fuels, ASTM D1072-80, 90 (Reapproved 1994); D3246-81, 92, 96; D4468-85 (Reapproved 2000); or D6667-01 (all of which are incorporated by reference, see §60.17). The applicable ranges of some ASTM methods mentioned above are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of the dilution ratio) may be used, subject to the prior approval of the Administrator.
 - (11) The fuel analyses required under paragraphs (b)(9) and (b)(10) of this section may be performed by the owner or operator, a service contractor retained by the owner or operator, the fuel vendor, or any other qualified agency.
- (c) The owner or operator may use the following as alternatives to the reference methods and procedures specified in this section:
- (1) Instead of using the equation in paragraph (b)(1) of this section, manufacturers may develop ambient condition correction factors to adjust the nitrogen oxides emission level measured by the performance test as provided in §60.8 to ISO standard day conditions.

[69 FR 41363, July 8, 2004]

▲ Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Mr. Mark J. Hornick
General Manager
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B. Received by (Printed Name)

OSMAN

C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

10-1-2008

3. Service Type

☒ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee)*

☐ Yes

2. Article Number

(Transfer from service label)

7000 1670 0013 3110 0680

PS Form 3811, February 2004

Domestic Return Receipt

102595-02-M-1540

U.S. Postal Service

CERTIFIED MAIL RECEIPT

(Domestic Mail Only; No Insurance Coverage Provided)

Mr. Mark J. Hornick, General Manager

Postage

\$

Certified Fee

\$

Return Receipt Fee

\$

(Endorsement Required)

Restricted Delivery Fee

\$

(Endorsement Required)

Total Postage & Fees

\$

Sent To

Mr. Mark J. Hornick, General Manager

Street, Apt. No. or PO Box No.

P.O. Box 111

City, State, ZIP+4

Tampa, Florida 33601-0111

PS Form 3800, May 2000

See Reverse for Instructions

7000 1670 0013 3110 0680

APPENDIX 10.6.4

**TITLE V AIR OPERATION PERMIT
(1050233-016-AV)**

Tampa Electric Company
Polk Power Station
Facility ID No. 1050233
Polk County

Title V Air Operation Permit Renewal

Final Permit No. 1050233-026-AV
(2nd Renewal, Renewal of Title V Air Operation Permit No. 1050233-016-AV)

Permitting Authority

State of Florida
Department of Environmental Protection
Division of Air Resource Management
Bureau of Air Regulation
Title V Section

Mail Station #5505
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Telephone: 850/488-0114
Fax: 850/921-9533

Compliance Authority

State of Florida
Department of Environmental Protection
Southwest District Office

13051 N. Telecom Parkway
Temple Terrace, FL 33637-0926

Telephone: 813/632-7600
Fax: 813/632-7665

Title V Air Operation Permit Renewal
Final Permit No. 1050233-026-AV

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Florida Department of Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Charlie Crist
Governor

Jeff Kottkamp
Lt. Governor

Michael W. Sole
Secretary

PERMITTEE:

Tampa Electric Company
Polk Power Station

Final Permit No. 1050233-026-AV

Facility ID No. 1050233

SIC No. 4911

Project: Title V Air Operation Permit Renewal

The purpose of this permit is to renew the Title V air operation permit for the Polk Power Station. This existing facility is located at 9995 State Route 37 South, Mulberry, Polk County; UTM Coordinates: Zone 17, 402.45 km East and 3067.35 km North; Latitude: 27° 43' 43" North and Longitude: 81° 59' 23" West.

This Title V air operation permit renewal is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, 62-213 and 62-214. The above named permittee is hereby authorized to perform the work or operate the facility in accordance with the terms and conditions of this permit.

Effective Date: January 1, 2010

Optional Renewal Application Due Date: May 20, 2013

Renewal Application Due Date: May 20, 2014

Expiration Date: December 31, 2014

Joseph Kalm, Director
Division of Air Resource Management

JK/tlv/jkh/sms

SECTION I. FACILITY INFORMATION.

Subsection A. Facility Description.

The regulated emissions units at this state-of-the-art integrated gasification combined-cycle (IGCC) plant include a 260 megawatt (MW) (electric) combined cycle combustion turbine (Unit No. 1) which fires syngas or No. 2 fuel oil; an auxiliary boiler which fires No. 2 fuel oil; a sulfuric acid plant; a solid fuel handling system; a solid fuel gasification system; two nominal 165 MW simple cycle gas turbines (Unit Nos. 2 & 3) firing either natural gas or No. 2 fuel oil; and, two nominal 165 MW simple cycle gas turbines (Unit Nos. 4 & 5) firing only natural gas. The IGCC plant commenced commercial operation on September 30, 1996. Also included in this permit are miscellaneous unregulated/insignificant emissions units and/or activities.

Subsection B. Summary of Emissions Units.

E.U. ID No.	Brief Description
<i>Regulated Emissions Units</i>	
-001	260 MW Combined Cycle Gas Turbine No. 1
-003	120 Million Btu per Hour Auxiliary Boiler
-004	Sulfuric Acid Plant
	<i>Solid Fuel Handling and Gasification Systems</i>
-005	Solid Fuel Handling System
-006	Solid Fuel Gasification System
	<i>Simple Cycle Turbines</i>
-009	Nominal 165 MW Simple Cycle Turbine No. 2
-010	Nominal 165 MW Simple Cycle Turbine No. 3
-011	Nominal 165 MW Simple Cycle Turbine No. 4
-012	Nominal 165 MW Simple Cycle Turbine No. 5
<i>Unregulated Emissions Units and/or Activities</i>	
-007	Emergency Generators
-008	Heating Units and General Purpose Internal Combustion Engines

SECTION I. FACILITY INFORMATION.

Subsection C. Applicable Requirements.

Based on the Title V air operation permit renewal application received on May 20, 2009, this facility is not a major source of hazardous air pollutants (HAP). This facility is classified as a Prevention of Significant Deterioration (PSD) major facility. A summary of important applicable requirements is shown in the following table.

Applicable Requirement	E.U. ID No(s).
Rule 62-296.470, F.A.C., Clean Air Interstate Rule	-001, 009, -010, -011 & -012
Acid Rain, Phase II SO ₂	-001, 009, -010, -011 & -012
Rule 62-212.400, F.A.C., Prevention of Significant Deterioration	-001, -003, -005, -006, -009, -010, -011 & -012
40 CFR 60, Subpart A, New Stationary Source Performance Standards (NSPS) General Provisions	-001, -003 & -005, -009, -010, -011 & -012
NSPS - 40 CFR 60, Subpart Db, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units	-003
NSPS - 40 CFR 60, Subpart Y, Standards of Performance for Coal Preparation Plants	-005
NSPS - 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines	-001, -009, -010, -011 & -012
Rule 62-296.406, F.A.C., Fossil Fuel Steam Generators with less than 250 Million Btu per Hour Heat Input, New and Existing Emissions Units	-003
Rule 62-296.402(2), F.A.C., Sulfuric Acid Plants - New Plants	-004

SECTION II. FACILITY-WIDE CONDITIONS.

The following conditions apply facility-wide to all emission units and activities:

FW1. Appendices. The permittee shall comply with all documents identified in Section VI., Appendices, listed in the Table of Contents. Each document is an enforceable part of this permit unless otherwise indicated. [Rule 62-213.440, F.A.C.]

Emissions and Controls

FW2. Not federally enforceable. Objectionable Odor Prohibited. No person shall cause, suffer, allow or permit the discharge of air pollutants, which cause or contribute to an objectionable odor. An "objectionable odor" means any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance. [Rule 62-296.320(2) and 62-210.200(Definitions), F.A.C.]

FW3. General Volatile Organic Compounds (VOC) Emissions or Organic Solvents (OS) Emissions. The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department. Nothing was deemed necessary and ordered at this time. [Rule 62-296.320(1), F.A.C.]

FW4. General Visible Emissions. No person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity equal to or greater than 20% opacity. EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C. This regulation does not impose a specific testing requirement. [Rule 62-296.320(4)(b)1., F.A.C.]

FW5. Unconfined Particulate Matter. No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity, including vehicular movement; transportation of materials; construction; alteration; demolition or wrecking; or industrially related activities such as loading, unloading, storing or handling; without taking reasonable precautions to prevent such emissions. Reasonable precautions to prevent emissions of unconfined particulate matter at this facility include: enclosing all solid fuel storage, conveyors, and conveyor transfer points; chemical or water application to unpaved road and unpaved yard areas; paving and maintenance of roads, parking areas, and yards; landscaping or planting of vegetation; confining abrasive blasting where possible; and other techniques, as necessary, to all facilities to maintain an opacity of less than or equal to five percent. [Rule 62-296.320(4)(c), F.A.C.; proposed by applicant in Title V air operation permit renewal application received on May 20, 2009; and, PSD-FL-194E.]

Annual Reports and Fees

See Appendix RR, Facility-wide Reporting Requirements, for additional details.

FW6. Annual Operating Report. The permittee shall submit an annual report that summarizes the actual operating rates and emissions from this facility. Annual operating reports shall be submitted to the Compliance Authority by April 1st of each year. [Rule 62-210.370(3), F.A.C.]

FW7. Annual Emissions Fee Form and Fee. The annual Title V emissions fees are due (postmarked) by March 1st of each year. The completed form and calculated fee shall be submitted to: Major Air Pollution Source Annual Emissions Fee, P.O. Box 3070, Tallahassee, Florida 32315-3070. The forms are available for download by accessing the Title V Annual Emissions Fee On-line Information Center at the following Internet web site: <http://www.dep.state.fl.us/air/emission/tvfee.htm>. [Rule 62-213.205, F.A.C.]

FW8. Annual Statement of Compliance. The permittee shall submit an annual statement of compliance to the compliance authority at the address shown on the cover of this permit within 60 days after the end of each calendar year during which the Title V air operation permit was effective. [Rules 62-213.440(3)(a)2. & 3. and (b), F.A.C.]

SECTION II. FACILITY-WIDE CONDITIONS.

- FW9.** Prevention of Accidental Releases (Section 112(r) of CAA). If and when the facility becomes subject to 112(r), the permittee shall:
- a. Submit its Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center. Any Risk Management Plans, original submittals, revisions or updates to submittals, should be sent to: RMP Reporting Center, Post Office Box 10162, Fairfax, VA 22038, Telephone: 703/227-7650.
 - b. Submit to the permitting authority Title V certification forms or a compliance schedule in accordance with Rule 62-213.440(2), F.A.C.
- [40 CFR 68]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emissions Unit -001

The specific conditions in this section apply to the following emissions unit(s):

E.U. ID No.	Brief Description
-001	260 MW Combined Cycle Gas Turbine No. 1

This integrated solid fuel gasification combined cycle combustion turbine (CCCT) is a General Electric Model Number 7F, 260 megawatt (electric) unit capable of firing synthetic gas (syngas) or a limited amount of No. 2 fuel oil. The maximum heat input at 59 degrees F is 1,755 million Btu per hour when firing syngas and 1,765 million Btu per hour when firing No. 2 fuel oil. The combustion turbine uses nitrogen diluent injection and syngas moisture saturation when firing syngas and water injection when firing No. 2 fuel oil to control NOx (nitrogen oxide) emissions. The air separation unit produces nitrogen for use in the CCCT, and oxygen for use in the solid fuel gasification system. The nitrogen diluent injection system and syngas moisture saturation controls NOx emissions by reducing the flame temperature in the combustion turbine. It also serves a secondary purpose of increasing the fuel mass flow of the relatively low heat content syngas in order to increase the power output of the CCCT. The combined cycle combustion turbine began operation on April 10, 1996. The stack parameters are: height, 150 feet; diameter, 19 feet; exit temperature, 340 degrees F; and, actual stack gas flow rate, 1,290,000 acfm.

{Permitting note(s): This emissions unit is regulated under Acid Rain, Phase II; NSPS - 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines, adopted and incorporated by reference in Rule 62-204.800(8)(b), F.A.C.; Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD) [PSD-FL-194, as amended]; Rule 62-212.400(6), F.A.C., Best Available Control Technology (BACT) Determination, dated February 24, 1994; and, Rule 62-296.470, F.A.C., Clean Air Interstate Rule (CAIR).}

Essential Potential to Emit (PTE) Parameters

- A.1. Hours of Operation.** This emissions unit may operate continuously (8760 hours/year). [Rule 62-210.200 (Definitions - Potential to Emit (PTE), F.A.C.)]
- A.2. Permitted Capacity.** The maximum heat input rate (higher heating value) is 1,755 million Btu per hour when firing syngas and 1,765 million Btu per hour when firing No. 2 fuel oil at an ambient temperature of 59 degrees F. Manufacturer's curves approved by the Department for the heat input correction to other temperatures may be utilized to establish heat input rates over a range of temperatures for compliance determination. The monitoring required under NSPS 40 CFR 60 Subpart GG shall satisfy periodic monitoring requirements for heat input. [Rules 62-4.160(2), 62-210.200 (Definitions - PTE); and, 62-296.406, F.A.C.; PSD-FL-194; and, Rule 62-213.440(1)(b)1.b. (Periodic Monitoring), F.A.C. {Resolution of objection from USEPA dated 01/22/1999.}]
- A.3. Emissions Unit Operating Rate Limitation After Testing.** See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. [Rule 62-297.310(2), F.A.C.]
- A.4. Methods of Operation - Fuels.**
- This emissions unit fires syngas as the primary fuel.
 - This emissions unit fires No. 2 distillate oil. The firing of No. 2 fuel oil is limited to a 10 percent annual capacity factor to be determined as follows: $[\text{Load (\%)}] / 100\% * \text{hours of operation} \leq 876 \text{ hours}$. [Rules 62-4.160(2), 62-210.200 (Definitions - PTE), 62-213.410, 62-213.440(1), F.A.C.; and, PSD-FL-194.]

Emission Limitations and Standards

Unless otherwise specified, the averaging time(s) for Specific Condition(s) **A.5. - A.8.** are based on the specified averaging time of the applicable test method.

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emissions Unit -001

A.5. The maximum allowable emissions shall not exceed the following:

Air Pollutant	Fuel	Basis ^a	lb/hr [*]	TPY ^b
NOx	Oil	42 ppmvd ^{**}	311	N/A
	Syngas	15 ppmvd ^{***}	132 ^{***}	620 ^{***}
VOC ^c	Oil	0.028 lb/MMBtu	32	N/A
	Syngas	0.0017 lb/MMBtu	3	38.5
CO	Oil	40 ppmvd	99	N/A
	Syngas	25 ppmvd	98	430.1
PM/PM ₁₀ ^d	Oil	0.009 lb/MMBtu	17	N/A
	Syngas	0.013 lb/MMBtu	17	74.5
Pb	Oil	5.30E-5 lb/MMBtu	0.101	N/A
	Syngas	2.41E-6 lb/MMBtu	0.0035	0.067
SO ₂	Oil	0.048 lb/MMBtu	92.2	N/A
	Syngas	0.17 lb/MMBtu	357	1,563.7
Sulfuric Acid Mist ^e	Syngas		55	241
Inorganic Arsenic	Syngas		0.0006	0.019
Beryllium	Syngas		0.0001	0.0029
Mercury	Syngas		0.0034	0.017

Table Notes:

* Emission limitations in lbs/hr are 30-day rolling averages, except for NOx while firing syngas, which is limited in ppmvd at 15% oxygen and complied with on a 30-day rolling average via CEMS. Pollutant emission rates may vary depending on ambient conditions and the combustion turbine (CT) characteristics. Manufacturer's curves for the emission rate correction to other temperatures at different loads shall be provided to the Department. Subject to approval by the Department, the manufacturer's curves may be used to establish pollutant emission rates over a range of temperatures for the purposes of compliance determination.

** The emission limit for NOx is adjusted as follows for higher fuel bound nitrogen contents up to a maximum of 0.030 percent, by weight:

Fuel Bound Nitrogen (% by weight)	NOx Emissions Levels (ppmvd @ 15% O ₂)
0.015 or less	42
0.020	44
0.025	46
0.030	48

Using the formula: $STD = 0.0042 + F$

where:

STD = allowable NOx emissions (% by volume at 15% O₂ and on a dry basis)

F = NOx emission allowance for fuel bound nitrogen (FBN) defined by the following table:

Fuel Bound Nitrogen (% by weight)	F ^e (NOx % by volume)
0 < N < 0.015	0
0.015 < N < 0.03	0.04 (N - 0.015)

where:

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emissions Unit -001

N = nitrogen content of the fuel (% by weight)

The permittee shall submit fuel bound nitrogen content data for the low sulfur fuel oil to the Southwest District Office on each occasion that fuel oil is transferred to the storage tanks from any other source. The percent FBN (Z) following each delivery of fuel shall be determined by the following equation:

$$x(Y) + m(n) = (x + m)(Z)$$

where:

x = amount of fuel in the storage tank

Y = % FBN in the storage tank

m = amount of fuel added

n = % FBN of the fuel added

Z = % FBN of composite fuel

Use of the nitrogen oxides continuous emissions monitor to determine compliance with the standard satisfies the requirement to report the fuel bound nitrogen content data to the Southwest District Office.

*** The NO_x limit was lowered under PSD-FL-194F/1050233-007-AC.

^a Syngas lb/MMBtu values are based on heat input (HHV) to the solid fuel gasifier and includes emissions from the sulfuric acid plant. Pollutant concentrations in ppmvd are corrected to 15 percent oxygen.

^b Annual emission limits (TPY) are based on 10 percent annual capacity factor firing fuel oil.

^c Exclusive of background concentrations.

^d Excluding sulfuric acid mist.

^e Sulfuric acid mist emissions assume a maximum of 0.05 percent sulfur, by weight, in the fuel oil.

[PSD-FL-194, as amended; and, 1050233-015-AC.]

A.6. NO_x. The permittee shall operate the combustion turbine in a manner to achieve the lowest possible NO_x emission limit, but shall not exceed 15 ppmvd corrected to 15% oxygen and ISO conditions when firing syngas. [PSD-FL-194; and, PSD-FL-194F/1050233-007-AC.]

A.7. Sulfur Dioxide (SO₂) - Sulfur Content. The maximum sulfur content of the No. 2 fuel oil shall not exceed 0.05 percent, by weight. [1050233-015-AC.]

A.8. Visible Emissions (VE). VE shall not exceed 10 percent opacity when firing syngas and 20 percent opacity when firing No. 2 fuel oil. [PSD-FL-194.]

Excess Emissions

Rule 62-210.700 (Excess Emissions), F.A.C., cannot vary any requirement of a NSPS or NESHAP provision.

A.9. Excess Emissions Allowed - Startup, Shutdown or Malfunction. Excess emissions resulting from startup, shutdown or malfunction shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. Best operational practices shall be documented in writing and submitted to the Department. The documentation shall include limitations on excess emissions caused by turbine startup and shall be updated within thirty (30) days of implementation of any changes. [Rule 62-210.700(1), F.A.C.; and, 1050233-015-AC.]

A.10. Best Operational Practices to Minimize Excess Emissions. The permittee shall follow the best operational practices to minimize excess emissions during startup and shutdown as described in **Appendix BOP, Best Operational Practices for Start up and Shutdown**. [Rule 62-210.700(2) and 62-213.440(1) (Operational Requirements that Assure Compliance), F.A.C. and Proposed by the Applicant in the Renewal Application.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emissions Unit -001

- A.11. Excess Emissions Prohibited.** Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]

Continuous Emissions Monitoring Systems (CEMS)

{Permitting Note: The following continuous monitors are installed on these units: SO₂, NO_x, carbon dioxide (CO₂) and stack gas flow.}

- A.12. CEMS for NO_x and SO₂.** Emissions of NO_x and SO₂ shall be determined continuously with data from the existing continuous emissions monitoring systems (CEMS). [Permit No. 1050233-021-AC/PSD-FL-194H, specific condition 3.5.]

Test Methods and Procedures

- A.13. Test Methods.** Required tests shall be performed in accordance with the following reference methods:

Method(s)	Description of Method(s) and Comment(s)
EPA Methods 1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
EPA Methods 5, 5B or 17	Methods for Determining PM Emissions
EPA Methods 6, 6A, 6B or 6C	Methods for Determining SO ₂ Emissions
EPA Method 7, 7A, 7C, 7D or 7E	Determination of NO _x Emissions
EPA Method 8, 8A or 320 Method 8B*	Determination of SAM Emissions
EPA Method 9	Visual Determination of the Opacity of Emissions (VE)
EPA Method 10	Determination of CO Emissions
EPA Method 18	Measurement of Gaseous Organic Compound Emissions (VOC)

The above methods are described in Chapter 62-297, F.A.C. and/or 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. *Method 8B as approved in Permit No. 1050233-021-AC/PSD-FL-194H. [Chapter 62-297, F.A.C.]

- A.14. Annual Compliance Test.** Unless otherwise specified by this permit, during each federal fiscal year (October 1st to September 30th), Emissions Unit ID No. -001 shall be tested to demonstrate compliance with the emission limitations and standards for VE, CO, NO_x and SO₂. The NO_x and SO₂ RATA test data may be used to demonstrate compliance with the annual test requirement, provided the testing requirements (notification, procedures and reporting) of Chapter 62-297, F.A.C. are met. [Rule 62-297.310(7), F.A.C.; and, Permit No. 1050233-021-AC/PSD-FL-194H, specific condition 3.5.]
- A.15. Compliance Test Prior To Renewal.** Prior to permit renewal, Emissions Unit ID No. -001 shall be tested to demonstrate compliance with the emission limitations and standards for VE, CO, NO_x, SO₂, VOC and PM/PM₁₀. [Rule 62-297.310(7)(a)3., F.A.C. ; and, Permit No. 1050233-021-AC/PSD-FL-194H, specific condition 3.5.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emissions Unit -001

- A.16. Common Testing Requirements.** Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]
- A.17. VE Testing Not Required.** By this permit, annual emissions compliance testing for visible emissions is not required for this emissions unit while burning only liquid fuel for less than 400 hours per year. See Specific Condition **TR7**. [Rule 62-297.310(7)(a)4., F.A.C.]
- A.18. Lead, Inorganic Arsenic, Beryllium, and Mercury.** The initial compliance test requirement for these pollutants has been satisfied and no further tests are required. [PSD-FL-194.]
- A.19. Testing Frequency - SAM.** The permittee shall conduct stack tests semi-annually to demonstrate continued compliance with the permitted emissions limits for SAM. The semi-annual testing shall be performed for a period of five (5) years following the increase in the petcoke blend ratio (the petcoke blend ratio was increased to 85% in the Fall of 2008, therefore, the 5-year period is effective calendar year (CY) 2009 through CY 2013) and shall consist of at least six test runs. [Rules 62-4.070(3) and 62-297.310(7), F.A.C.; and, Permit No. 1050233-021-AC/PSD-FL-194H, specific condition 3.5.]
- A.20. Testing Conditions.** Emissions testing shall be conducted while gasifying and firing a coal/petroleum coke blend containing the highest blended fuel ratio at which that the plant wishes to be allowed to operate (up to 85% petroleum coke / 15% coal and 4.7% sulfur, by weight). [Rules 62-4.070(3) and 62-297.310(7), F.A.C.; and, Permit No. 1050233-021-AC/PSD-FL-194H, specific condition 3.5.]

Recordkeeping and Reporting Requirements

See Appendix RR, Facility-wide Reporting Requirements, for additional reporting requirements.

- A.21. Reporting Schedule.** The following report shall be submitted to the Compliance Authority:

Report	Reporting Deadline(s)	Related Condition(s)
NSPS Excess Emissions and Monitoring System Performance	Every 6 months (semi-annual), except when more frequent reporting is specifically required	A.22.

[40 CFR 60, Subpart A.]

NSPS 40 CFR 60 Requirements

- A.22. NSPS Requirements - Subpart A.** This emissions unit shall comply with all applicable requirements of 40 CFR 60, Subpart A, General Provisions, including:
40 CFR 60.7, Notification and Recordkeeping
40 CFR 60.8, Performance Tests
40 CFR 60.11, Compliance with Standards and Maintenance Requirements
40 CFR 60.12, Circumvention
40 CFR 60.13, Monitoring Requirements
40 CFR 60.19, General Notification and Reporting Requirements,
which have been adopted by reference in Rule 62-204.800(8)(d), F.A.C., except that the Secretary is not the Administrator for purposes of 40 CFR 60.4, 40 CFR 60.8(b)(2) and (3), 40 CFR 60.11(e)(7) and (8), 40 CFR 60.13(g), (i) and (j)(2), and 40 CFR 60.16. This emissions unit shall comply with **Appendix 40 CFR 60 Subpart A** included with this permit. [Rule 62-204.800(8)(d), F.A.C.]
- A.23. NSPS Requirements - Subpart GG.** Except as otherwise provided in this permit, the combustion turbine shall comply with all applicable provisions of 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines, adopted by reference in Rule 62-204.800(8)(b), F.A.C., except that the Secretary is not the Administrator for purposes of 40 CFR 60.334(b)(2) and 40 CFR 60.335(f)(1). The Subpart GG requirement to correct test data to ISO conditions applies, but such correction is not required to demonstrate

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emissions Unit -001

compliance with the non-NSPS permit standard(s). This emissions unit shall comply with **Appendix 40 CFR 60 Subpart GG** attached to this permit. [Rule 62-204.800(8)(b)39., F.A.C.]

Other Requirements

A.24. This emissions unit is also subject to conditions **H.1.** and **H.2.** contained in **Subsection H. Common Conditions.**

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection B. Emissions Unit -003

The specific conditions in this section apply to the following emissions unit(s):

E.U. ID No.	Brief Description
-003	120 Million Btu per Hour Auxiliary Boiler

The auxiliary boiler only operates during startup and shutdown of the CCCT, or when steam from the HRSG is unavailable. The auxiliary boiler produces steam for in-plant use and has a maximum heat input of 120.0 million Btu per hour. The boiler is fired with only very low sulfur fuel oil and has a capacity factor of less than or equal to 35%. The boiler can be continuously fired in a standby mode with full operation limited to a maximum of 3,000 hours per year. No add-on air pollutant emission control devices are employed by this emissions unit. This emissions unit has exhaust gas recirculation (EGR) for the control of NOx emissions. The auxiliary boiler began operation on April 10, 1996. The stack parameters are: height, 75 feet; diameter, 3.7 feet; exit temperature, 375 degrees F; and, stack gas flow rate, 32,240 acfm.

{Permitting note(s): This emissions unit is regulated under NSPS - 40 CFR 60, Subpart Db, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units, adopted and incorporated by reference in Rule 62-204.800(8)(b)3., F.A.C.; Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD) [PSD-FL-194, as amended]; Rule 62-212.400(6), F.A.C., Best Available Control Technology (BACT) Determination, dated February 24, 1994; and, Rule 62-296.406, F.A.C., Fossil Fuel Steam Generators with less than 250 Million Btu per Hour Heat Input, New and Existing Emissions Units.}

Essential Potential to Emit (PTE) Parameters

- B.1. Permitted Capacity.** The maximum process/operation rate heat input (higher heating value) is 120.0 million Btu per hour. [Rules 62-4.160(2), 62-210.200 (Definitions - Potential to Emit (PTE)); and, 62-296.406, F.A.C.; and, PSD-FL-194(A).]
- B.2. Emissions Unit Operating Rate Limitation After Testing.** See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. [Rule 62-297.310(2), F.A.C.]
- B.3. Methods of Operation - Fuels.** This emissions unit shall fire only very low sulfur No. 2 distillate oil. [Rules 62-4.160(2), 62-210.200 (Definitions - PTE), 62-213.410, 62-213.440(1), F.A.C.; and, PSD-FL-194.]
- B.4. Hours of Operation.**
- a. **Standby Mode.** This emissions unit may operate in a standby mode continuously, i.e., 8,760 hours/year.
 - b. **Non-Standby Modes.** The hours of operation for this emissions unit shall not exceed 3,000 hours/year. [Rules 62-4.160(2), 62-210.200 (Definitions - PTE), F.A.C.; and, PSD-FL-194(A).]

Emission Limitations and Standards

Unless otherwise specified, the averaging time(s) for Specific Condition(s) **B.5. - B.12.** are based on the specified averaging time of the applicable test method.

- B.5. Visible Emissions (VE).** Visible emissions shall not exceed 20 percent opacity (six-minute average), except for one six-minute period per hour during which opacity shall not exceed 27 percent. [40 CFR 60.43b(f); PSD-FL-194(A); and, Rule 62-296.406(1) (BACT), F.A.C.]
- B.6. Particulate Matter (PM) Emissions.** Particulate matter emissions shall not exceed 43 ng/J (0.10 pound per million Btu) heat input. [40 CFR 60.43b(b); PSD-FL-194; and, Rule 62-296.406(2) (BACT), F.A.C.]
- B.7. Sulfur Dioxide (SO₂) Emissions.** Sulfur dioxide emissions shall not exceed 0.80 pound per million Btu heat input. [40 CFR 60.42b(a) & (j); PSD-FL-194; and, Rule 62-296.406(3) (BACT), F.A.C.]
- B.8. SO₂ - Percent Reduction.** Percent reduction requirements are not applicable to affected facilities combusting only very low sulfur oil. The owner or operator of an affected facility combusting very low sulfur oil shall demonstrate that the oil meets the definition of very low sulfur oil by: (1) Following the

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection B. Emissions Unit -003

performance testing procedures as described in 40 CFR 60.45b(c) or 40 CFR 60.45b(d), and following the monitoring procedures as described in 40 CFR 60.47b(a) or 40 CFR 60.47b(b) to determine sulfur dioxide emission rate or fuel oil sulfur content; or (2) maintaining fuel receipts as described in 40 CFR 60.49b(c). [40 CFR 60.42b(j) and, PSD-FL-194]

- B.9. SO₂ - Sulfur Content.** The maximum sulfur content of the very low sulfur No. 2 fuel oil shall not exceed 0.05 percent, by weight. [PSD-FL-194; and, Rule 62-296.406(3) (BACT), F.A.C.]
- B.10. SO₂ - Averaging Time.** Compliance with the emission limits and the fuel oil sulfur limits are determined on a 30-day rolling average basis. [40 CFR 60.42b(e) and, PSD-FL-194.]
- B.11. Nitrogen Oxides (NO_x) Emissions.** Emissions of nitrogen oxides (expressed as NO₂) shall not exceed 0.10 pound per million Btu heat input. [40 CFR 60.44b(a); and, PSD-FL-194(A).]
- B.12. NO_x - Averaging Time.** Compliance with the emission limits is determined on a 30-day rolling average basis. [40 CFR 60.44b(i).]

Excess Emissions

Rule 62-210.700 (Excess Emissions), F.A.C., cannot vary any requirement of a NSPS or NESHAP provision.

- B.13. Excess Emissions Allowed - Startup, Shutdown or Malfunction.** Excess emissions resulting from startup, shutdown or malfunction shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]
- B.14. Best Operational Practices to Minimize Excess Emissions.** The permittee shall follow the best operational practices to minimize excess emissions during startup and shutdown as described in **Appendix BOP, Best Operational Practices for Start up and Shutdown**. [Rule 62-210.700(2) and 62-213.440(1) (Operational Requirements that Assure Compliance), F.A.C. and Proposed by the Applicant in the Renewal Application.]
- B.15. Excess Emissions Prohibited.** Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]
- B.16. PM and VE.** The particulate matter and opacity standards apply at all times, except during periods of startup, shutdown or malfunction. [40 CFR 60.43b(g) and, PSD-FL-194.]
- B.17. SO₂.** The sulfur dioxide emission limitations apply at all times, including periods of startup, shutdown and malfunction. [40 CFR 60.42b(g) and, PSD-FL-194.]
- B.18. NO_x.** The nitrogen oxide standards apply at all times, including periods of startup, shutdown, or malfunction. [40 CFR 60.44b(4) and, PSD-FL-194.]

Monitoring of Operations

- B.19. Sulfur Content of Fuel.** Compliance with the maximum sulfur content of the low sulfur fuel oil shall be demonstrated by testing for sulfur content of the fuel oil in the storage tanks once per day when firing oil. Testing for fuel oil heating value shall also be conducted on the same schedule. [PSD-FL-194.]

Test Methods and Procedures

- B.20. Test Methods.** Required tests shall be performed in accordance with the following reference methods:

Method(s)	Description of Method(s) and Comment(s)
EPA Methods 1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content

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Subsection B. Emissions Unit -003

Method(s)	Description of Method(s) and Comment(s)
EPA Methods 5, 5B or 17	Methods for Determining PM Emissions
EPA Methods 6, 6A, 6B or 6C	Methods for Determining SO ₂ Emissions
Method 7, 7A, 7C, 7D or 7E	Determination of NO _x Emissions
EPA Method 10	Determination of CO Emissions
EPA Method 9	Visual Determination of the Opacity of Emissions (VE)

The above methods are described in Chapter 62-297, F.A.C. and/or 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Chapter 62-297, F.A.C.]

- B.21. Annual Compliance Test.** Unless otherwise specified by this permit, during each federal fiscal year (October 1st to September 30th), Emissions Unit ID No. -003 shall be tested to demonstrate compliance with the emission limitations and standards for VE. [Rule 62-297.310(7), F.A.C.]
- B.22. Compliance Test Prior To Renewal.** Prior to permit renewal, Emissions Unit ID No. -003 shall be tested to demonstrate compliance with the emission limitations and standards for VE, PM and NO_x. [Rule 62-297.310(7)(a)3., F.A.C.]
- B.23. Common Testing Requirements.** Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]
- B.24. Sulfur Dioxide.** The owner or operator shall determine compliance with the fuel sulfur content limit by using method ASTM D 2880-71, or the latest edition. [PSD-FL-194.]
- B.25. VE Testing Not Required.** By this permit, annual emissions compliance testing for visible emissions is not required for this emissions unit while burning only liquid fuel for less than 400 hours per year. See Specific Condition **TR7**. [Rule 62-297.310(7)(a)4., F.A.C.]

Recordkeeping and Reporting Requirements

See Appendix RR, Facility-wide Reporting Requirements, for additional reporting requirements.

- B.26. Reporting Schedule.** The following report shall be submitted to the Compliance Authority:

Report	Reporting Deadline(s)	Related Condition(s)
NSPS Excess Emissions and Monitoring System Performance	Every 6 months (semi-annual), except when more frequent reporting is specifically required	B.28.

[40 CFR 60, Subpart A.]

- B.27. Records.** Records of the hours of non-standby operation of the auxiliary boiler will be kept for purposes of periodic monitoring. [Rule 62-213.440(1)(b)1.b. (Periodic Monitoring), F.A.C. {Resolution of objection from USEPA dated 01/22/1999.}]

NSPS 40 CFR 60 Requirements

- B.28. NSPS Requirements - Subpart A.** This emissions unit shall comply with all applicable requirements of 40 CFR 60, Subpart A, General Provisions, including:
40 CFR 60.7, Notification and Recordkeeping

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection B. Emissions Unit -003

40 CFR 60.8, Performance Tests

40 CFR 60.11, Compliance with Standards and Maintenance Requirements

40 CFR 60.12, Circumvention

40 CFR 60.13, Monitoring Requirements

40 CFR 60.19, General Notification and Reporting Requirements,

which have been adopted by reference in Rule 62-204.800(8)(d), F.A.C., except that the Secretary is not the Administrator for purposes of 40 CFR 60.4, 40 CFR 60.8(b)(2) and (3), 40 CFR 60.11(e)(7) and (8), 40 CFR 60.13(g), (i) and (j)(2), and 40 CFR 60.16. This emissions unit shall comply with **Appendix 40 CFR 60 Subpart A** included with this permit. [Rule 62-204.800(8)(d), F.A.C.]

B.29. NSPS Requirements - Subpart Db. Except as otherwise provided in this permit, this emissions unit shall comply with all applicable provisions of 40 CFR 60, Subpart Db, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units, adopted by reference in Rule 62-204.800(8)(b)3., F.A.C., except that the Secretary is not the Administrator for purposes of 40 CFR 60.44b(f) and (g) and 40 CFR 60.49b(a)(4). This emissions unit shall comply with **Appendix 40 CFR 60 Subpart Db** included with this permit. [Rule 62-204.800(8)(b)3., F.A.C.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection C. Emissions Unit -004

The specific conditions in this section apply to the following emissions unit(s):

E.U. ID No.	Brief Description
-004	Sulfuric Acid Plant

The sulfuric acid plant (SAP) removes sulfur from the syngas stream before it is combusted in the CCCT. The SAP takes a sulfur gas stream from the solid fuel gasification plant's hot gas cleanup or cold gas cleanup systems and converts it to sulfuric acid using the double contact process. The SAP has a 15 million Btu per hour, propane fired, hydrogen sulfide (H₂S) to SO₂ conversion furnace which vents to the atmosphere only during warm-up; and a 9 million Btu per hour, propane fired, non-contact SO₂ to sulfur trioxide (SO₃) converter preheater which is vented to the atmosphere. This SAP is a double contact absorption plant with a maximum production rate of 299 tons per day (TPD) and 109,135 tons per year of 100% H₂SO₄ (sulfuric acid). The SAP uses vanadium pentoxide catalyst in the converters. The SAP uses mist eliminators for the control of sulfuric acid mist emissions. The stack parameters are: height, 199 feet; diameter, 2.5 feet; exit temperature, 180 degrees F; and, stack gas flow rate, 17,660 acfm. This SAP began operation on April 10, 1996.

{Permitting note(s): This emissions unit is regulated under Rule 62-296.402(2), F.A.C., Sulfuric Acid Plants - New Plants.}

Essential Potential to Emit (PTE) Parameters

- C.1. Hours of Operation.** This emissions unit may operate continuously (8760 hours/year). [Rule 62-210.200 (Definitions - Potential to Emit (PTE), F.A.C.)]
- C.2. Permitted Capacity.** The SAP production shall not exceed 299 tons per day (TPD) of 100% sulfuric acid. [Rules 62-4.160(2), 62-210.200 (Definitions - PTE) and 62-296.402(2), F.A.C.; and, Permit No. 1050233-021-AC/PSD-FL-194H, specific condition 3.3.] {Permitting note: The corresponding equivalent production rates are 12.46 tons per hour and 109,135 tons per year of 100% H₂SO₄.}
- C.3. Emissions Unit Operating Rate Limitation After Testing.** See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. [Rule 62-297.310(2), F.A.C.]
- C.4. Methods of Operation - Fuels.** The conversion furnace shall fire only propane. [Rules 62-4.160(2) and 62-213.410, F.A.C.]

Emission Limitations and Standards

Unless otherwise specified, the averaging time(s) for Specific Condition(s) C.5. - C.7 are based on the specified averaging time of the applicable test method.

- C.5. Visible Emissions (VE).** VE shall not exceed 10% opacity. [Rule 62-296.402(2)(a), F.A.C.]
- C.6. Sulfur Dioxide (SO₂).** SO₂ emissions shall not exceed 4 pounds per ton of 100% H₂SO₄ produced. [Rule 62-296.402(2)(b), F.A.C.]
- C.7. Sulfuric Acid Mist (SAM).** SAM emissions shall not exceed 0.15 pound per ton of 100% H₂SO₄ produced. [Rule 62-296.402(2)(c), F.A.C.]

Excess Emissions

Rule 62-210.700 (Excess Emissions), F.A.C., cannot vary any requirement of a NSPS or NESHAP provision.

- C.8. Excess Emissions Allowed.** Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection C. Emissions Unit -004

- C.9. Excess Emissions Prohibited. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]

Monitoring of Operations

- C.10. Monitoring - Visible Emission Observation. The owner or operator shall observe and record a quantified visible emission observation, six minutes in duration, for the sulfuric acid plant on a daily basis, for the purpose of periodic monitoring. [Rule 62-213.440(1)(b)1.b. (Periodic Monitoring), F.A.C. {Resolution of objection from USEPA dated 01/22/1999.}]
- C.11. Monitoring - Production. Compliance with the TPD production limit shall be demonstrated through the use of a continuous flow and composition (purity) monitor located between the sulfuric acid plant and the sulfuric acid storage tank. [Permit No. 1050233-021-AC/PSD-FL-194H, specific condition 3.3.]
- C.12. Monitoring - Daily Production. Record, in tons, the daily production of 100% sulfuric acid for purposes of periodic monitoring. [Rule 62-213.440(1)(b)1.b. (Periodic Monitoring), F.A.C. {Resolution of objection from USEPA dated 01/22/1999.}]

Test Methods and Procedures

- C.13. Test Methods. Required tests shall be performed in accordance with the following reference methods:

Method(s)	Description of Method(s) and Comment(s)
EPA Method 6C	Methods for Determining SO ₂ Emissions
EPA Method 8, 8A or 320 Method 8B*	Determination of SAM and SO ₂ Emissions from Stationary Sources
DEP Method 9	Visual Determination of the Opacity of Emissions (VE)

The above methods are described in Chapter 62-297, F.A.C. and/or 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. *Method 8B as approved in Permit No. 1050233-021-AC/PSD-FL-194H. [Chapter 62-297, F.A.C.; and, Permit No. 1050233-021-AC/PSD-FL-194H, specific condition 10.]

- C.14. Annual Compliance Tests. Unless otherwise specified by this permit, during each federal fiscal year (October 1st to September 30th), this emissions unit shall be tested to demonstrate compliance with the emission limitations and standards for VE and SO₂. [Rule 62-297.310(7), F.A.C.; and, PSD-FL-194.]
- C.15. Compliance Tests Prior To Renewal. Prior to permit renewal, this emissions unit shall be tested to demonstrate compliance with the emission limitations and standards for VE, SO₂ and SAM. [Rule 62-297.310(7)(a)3., F.A.C.; and, Permit No. 1050233-021-AC/PSD-FL-194H, specific condition 3.5.]
- C.16. Common Testing Requirements. Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]
- C.17. Visible Emissions. The test method for visible emissions shall be DEP Method 9, incorporated and adopted by reference in Chapter 62-297, F.A.C. [Rule 62-296.402(3)(a), F.A.C.]
- C.18. Sulfuric Acid Mist/Sulfur Dioxide. The test method for acid mist shall be EPA Method 8, 8A or 320 incorporated and adopted by reference in Chapter 62-297, F.A.C., or an alternative method approved by the Department. The minimum sample volume for the EPA Method 8 test shall be 40 dry standard cubic feet. The test method for sulfur dioxide shall be EPA Method 6C, incorporated and adopted by reference in Chapter 62-297, F.A.C., or an alternative method approved by the Department. [Rule 62-296.402(3)(b), F.A.C.; and, Applicant Request.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection C. Emissions Unit -004

C.19. Testing. Emissions testing shall be conducted while gasifying and firing a coal/petroleum coke blend containing the highest blended fuel ratio at which that the plant wishes to be allowed to operate (up to 85% petroleum coke / 15% coal and 4.7% sulfur, by weight). [Rules 62-4.070(3) and 62-297.310(7), F.A.C.; and, Permit No. 1050233-021-AC/PSD-FL-194H, specific condition 3.5.]

Recordkeeping and Reporting Requirements

See Appendix RR, Facility-wide Reporting Requirements, for additional reporting requirements.

Other Requirements

C.20. Compliance Plan - Unfinished Work and/or Activities.

- a. The report under specific condition 3.10 of Permit No. 1050233-021-AC/PSD-FL-194H has not yet been completed:

3.10 **SAM Emissions Monitor Report.** Prior to the expiration date of Permit No. 1050233-021-AC/PSD-FL-194H, the permittee shall submit a *report* detailing the potential options for continuous SAM emissions monitoring. Upon installation of an approved SAM CEMS or other approved monitoring protocol, the semi-annual SAM compliance tests required may be discontinued.

- b. The permittee expects to finish the report after the August 2009 SAM testing and complete it by 01/01/2010.

[Rules 62-213.440(2) and 62-213.420(1)(a)5., F.A.C.]

Other Requirements

C.21. This emissions unit is also subject to conditions **H.1.** and **H.2.** contained in **Subsection H. Common Conditions.**

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection D. Emissions Unit -005

The specific conditions in this section apply to the following emissions unit(s):

E.U. ID No.	Brief Description
-005	Solid Fuel Handling System

The solid fuel handling system consists of a bottom unloading station where water/surfactant spray is applied to the incoming fuel as needed for dust control. The system also includes enclosed or covered conveying systems, rubber skirted drop points from bins, two fuel silos (Silo Nos. 1 and 2) each with an associated baghouse, a silo feed to belt conveyor baghouse, a fuel surge bin with an associated baghouse, and two rod mill crushers for slurry production.

Solid fuel is received by truck and is unloaded to the fuel unloading bin. Fugitive particulate matter emissions are controlled by surfactant or water spray applied as needed. Fuel is conveyed via enclosed or covered conveyor from the unloading bin to the fuel storage silos. The transfer points from the bin to the belts are rubber skirted. When needed, fugitive particulate matter emissions from the fuel silos are each controlled by an associated baghouse. Fuel is then reclaimed from the silos via enclosed or covered conveyors to the surge bin inside the slurry preparation building. Fugitive particulate matter emissions from the surge bin are controlled by an associated baghouse. Fuel and water are then mixed in the rod mill crushers to produce a coal slurry.

{Permitting note(s): This emissions unit is regulated under NSPS - 40 CFR 60, Subpart Y, Standards of Performance for Coal Preparation Plants, adopted and incorporated by reference in Rule 62-204.800(8)(b)31., F.A.C.; and, Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD) [PSD-FL-194, as amended].}

Essential Potential to Emit (PTE) Parameters

D.1. Hours of Operation. This emissions unit may operate continuously (8760 hours/year). [Rule 62-210.200 (Definitions - Potential to Emit (PTE), F.A.C.)]

Air Pollution Control Technologies and Measures

D.2. Particulate matter emissions from the handling of solid fuels shall be controlled by enclosing or covering all solid fuel storage, conveyors and conveyor transfer points. Water sprays or chemical wetting agents and stabilizers shall be applied to uncovered storage piles, roads, handling equipment, etc. during dry periods, as necessary, to all facilities to maintain the opacity standard. [Permit No. 1050233-015-AC.]

Emission Limitations and Standards

Unless otherwise specified, the averaging time(s) for Specific Condition(s) **D.3.** is based on the specified averaging time of the applicable test method.

D.3. Visible Emissions (VE). Visible emissions shall be less than or equal to 5 (five) percent opacity. [PSD-FL-194(A).]

Excess Emissions

Rule 62-210.700 (Excess Emissions), F.A.C., cannot vary any requirement of a NSPS or NESHAP provision.

D.4. Excess Emissions Allowed. Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]

D.5. Excess Emissions Prohibited. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection D. Emissions Unit -005

Test Methods and Procedures

D.6. Test Methods. Required tests shall be performed in accordance with the following reference methods:

Method(s)	Description of Method(s) and Comment(s)
EPA Method 9	Visual Determination of the Opacity of Emissions (VE)

The above methods are described in Chapter 62-297, F.A.C. and/or 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Chapter 62-297, F.A.C.]

D.7. Annual Compliance Tests. Unless otherwise specified by this permit, during each federal fiscal year (October 1st to September 30th), the baghouse exhausts shall be tested to demonstrate compliance with the emission limitations and standards for VE. [Rule 62-297.310(7), F.A.C.; and, PSD-FL-194.]

D.8. Compliance Tests Prior To Renewal. Prior to permit renewal, the baghouse exhausts shall be tested to demonstrate compliance with the emission limitations and standards for VE. [Rule 62-297.310(7)(a)3., F.A.C.]

D.9. Common Testing Requirements. Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

Recordkeeping and Reporting Requirements

See Appendix RR, Facility-wide Reporting Requirements, for additional reporting requirements.

NSPS 40 CFR 60 Requirements

D.10. NSPS Requirements - Subpart A. This emissions unit shall comply with all applicable requirements of 40 CFR 60, Subpart A, General Provisions, including:
40 CFR 60.7, Notification and Recordkeeping
40 CFR 60.8, Performance Tests
40 CFR 60.11, Compliance with Standards and Maintenance Requirements
40 CFR 60.12, Circumvention
40 CFR 60.13, Monitoring Requirements
40 CFR 60.19, General Notification and Reporting Requirements,
which have been adopted by reference in Rule 62-204.800(8)(d), F.A.C., except that the Secretary is not the Administrator for purposes of 40 CFR 60.4, 40 CFR 60.8(b)(2) and (3), 40 CFR 60.11(e)(7) and (8), 40 CFR 60.13(g), (i) and (j)(2), and 40 CFR 60.16. This emissions unit shall comply with **Appendix 40 CFR 60 Subpart A** included with this permit. [Rule 62-204.800(8)(d), F.A.C.]

D.11. NSPS Requirements - Subpart Y. Except as otherwise provided in this permit, this emissions unit shall comply with all applicable provisions of 40 CFR 60, Subpart Y, Standards of Performance for Coal Preparation Plants, adopted and incorporated by reference in Rule 62-204.800(8)(b)31., F.A.C. This emissions unit shall comply with **Appendix 40 CFR 60 Subpart Y** included with this permit. [Rule 62-204.800(8)(b)2., F.A.C.]

Other Requirements

D.12. This emissions unit is also subject to conditions **H.1.** and **H.2.** contained in **Subsection H. Common Conditions.**

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection E. Emissions Unit -006

The specific conditions in this section apply to the following emissions unit(s):

E.U. ID No.	Brief Description
-006	Solid Fuel Gasification System

The solid fuel gasification system converts solid fuel (coal or blends of up to 85% petroleum coke (pet coke) and 15% bituminous coal) into synthetic gas (syngas) fuel for combustion in the CCCT for the purpose of electric generation. As an emergency safety device, a flare is used to burn gas from the process during startup, shutdown and emergencies. The flare is the only control device associated with the gasification system. The flare's stack height is 150 feet and the exit temperature of the exhaust gas is 1830 degrees F. Emissions from the flare's pilot flame are negligible.

{Permitting note(s): This emissions unit is regulated under Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD) [PSD-FL-194, as amended].}

Essential Potential to Emit (PTE) Parameters

E.1. Hours of Operation. This emissions unit may operate continuously (8760 hours/year). [Rule 62-210.200 (Definitions - Potential to Emit (PTE), F.A.C.)]

E.2. Permitted Capacity. Solid fuels input to the solid fuel gasification plant shall consist of coal or coal/petroleum coke blends containing a maximum of 85% petroleum coke by weight. The maximum input of solid fuels to the solid fuel gasification plant shall not exceed 2,325 tons per day, on a dry basis. The maximum weight of the petroleum coke blended shall not exceed 1,976 tons per day, on a dry basis. [Rules 62-4.160(2) and 62-210.200 (Definitions - PTE), F.A.C.; PSD-FL-194(E); and, Permit No. 1050233-021-AC/PSD-FL-194H, specific condition 3.1.]

E.3. Flare Operation. The flare shall only be operated during startup, shutdown or emergencies. [PSD-FL-194; and, PA92-32.]

Emission Limitations and Standards

Unless otherwise specified, the averaging time(s) for Specific Condition(s) **E.4.** is based on the specified averaging time of the applicable test method.

E.4. Visible Emissions (VE). Visible emissions shall not be equal to or greater than 20% opacity. [Rule 62-296.320(4)(b)1., F.A.C.]

E.5. SO₂ - Sulfur Content. The maximum sulfur content of the blended fuel shall not exceed 4.7% by weight. [Rules 62-4.160(2) and 62-210.200 (Definitions - PTE), F.A.C.; PSD-FL-194(E); and, Permit No. 1050233-021-AC/PSD-FL-194H, specific condition 3.1.]

{Permitting note(s): The sulfur content limitation in effect limits SO₂ emissions from the CCCT.}

Excess Emissions

Rule 62-210.700 (Excess Emissions), F.A.C., cannot vary any requirement of a NSPS or NESHAP provision.

E.6. Excess Emissions Allowed. Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]

E.7. Excess Emissions Prohibited. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]

Monitoring of Operations

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection E. Emissions Unit -006

- E.8. Fuel Composition.** The composition of coal, petroleum coke, and blended fuels gasified (including sulfur contents) shall be determined by proximate and ultimate analyses sampling of each unique fuel blend prior to gasification by either the owner/operator or the vendor. [Rules 62-4.070(3), 62-204.800 and 62-297.100, F.A.C.; 40 CFR 60, Appendix A; and, Permit No. 1050233-021-AC/PSD-FL-194H, specific condition 3.7.]
- E.9. Monitoring - Solid Fuel Sulfur Content.** Compliance with the solid fuel sulfur content standard of 4.7%, by weight, will be determined by sampling each unique fuel blend prior to gasification by the owner/operator or the vendor as follows: using appropriate ASTM methods such as, ASTM D2013-72, ASTM D3177-75, and ASTM D4239-85, or latest ASTM edition methods. [40 CFR 60.335(d); PSD-FL-194(E); and, Permit No. 1050233-021-AC/PSD-FL-194H, specific condition 3.2.]
- E.10. Monitoring - Solid Fuel Input.** The permittee shall record daily the actual solid fuel input to this emissions unit, in tons per day. [Rule 62-213.440(1)(b), F.A.C.]

Test Methods and Procedures

- E.11. Test Methods.** Required tests shall be performed in accordance with the following reference method(s):

Method(s)	Description of Method(s) and Comment(s)
EPA Method 9	Visual Determination of the Opacity of Emissions (VE)

The above methods are described in Chapter 62-297, F.A.C. and/or 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Chapter 62-297, F.A.C.]

- E.12. VE Testing - Annual.** By this permit, annual emissions compliance testing for VE is not required for this emissions unit while operating for less than 400 hours per year. [Rule 62-297.310(7)(a)4., F.A.C.]
- E.13. Common Testing Requirements.** Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

Recordkeeping and Reporting Requirements

See Appendix RR, Facility-wide Reporting Requirements, for additional reporting requirements.

- E.14. Recordkeeping.** Written or electronic records verifying that the coal/petroleum coke blends input to the solid fuel gasification system have not exceeded the 85% (1,976 tons per day) maximum petroleum coke by weight limit and the blended fuel sulfur content of 4.7% by weight limit, shall be maintained and submitted to the compliance authority with each annual report. These records shall be generated each time a new shipment of coal/petroleum coke fuel is received or solid fuel is gasified. [PSD-FL-194(E); and, Permit No. 1050233-021-AC/PSD-FL-194H, specific condition 3.1.]

Other Requirements

- E.15.** This emissions unit is also subject to conditions **H.1.** and **H.2.** contained in **Subsection H. Common Conditions.**

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection F. Emissions Units -009 & -010

The specific conditions in this section apply to the following emissions unit(s):

E.U. ID No.	Brief Description
-009	Nominal 165 MW Simple Cycle Turbine No. 2
-010	Nominal 165 MW Simple Cycle Turbine No. 3

These emissions units are two dual-fuel, nominal 165 megawatts (MW) General Electric Model PG7241 FA simple cycle combustion turbines. These units use dry low NOx combustors when firing natural gas and use water injection when firing No. 2 fuel oil. Pipeline quality natural gas is the primary fuel and No. 2 fuel oil serves as the backup fuel. CT No. 2 began operation on June 29, 2000. The stack parameters for CT No. 2 are: height, 114 feet; diameter, 18 feet; exit temperature, 1,117 degrees F; and, actual stack gas flow rate, 12,377,044 acfm. CT No. 3 began operation in April, 2002. The stack parameters for CT No. 3 are: height, 114 feet; diameter, 18 feet; exit temperature, 1,117 degrees F; and, actual stack gas flow rate, 12,377,044 acfm.

{Permitting note(s): These emissions units are regulated under Acid Rain, Phase II; NSPS - 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines, adopted and incorporated by reference in Rule 62-204.800(8)(b), F.A.C.; Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD) [PSD-FL-263]; Rule 62-212.400(6), F.A.C., Best Available Control Technology (BACT) Determination, dated February 24, 1994; and, Rule 62-296.470, F.A.C., Clean Air Interstate Rule (CAIR).}

Essential Potential to Emit (PTE) Parameters

- F.1. Hours of Operation.** The maximum hours of operation for each unit are 4,380 hours per year on natural gas and 750 hours per year on fuel oil. [Rule 62-210.200 (Definitions - Potential to Emit (PTE)), F.A.C.; and, PSD-FL-263.]
- F.2. Permitted Capacity.** The maximum heat input rates, based on the lower heating value (LHV) of each fuel to each unit at ambient conditions of 59 degrees F temperature, 60% relative humidity, 100% load, and 14.7 psi pressure shall not exceed 1,600 million Btu per hour (MMBtu/hr) when firing natural gas, nor 1,800 MMBtu/hr when firing No. 2 or superior grade of distillate fuel oil. These maximum heat input rates will vary depending upon ambient conditions and the combustion turbine characteristics. Manufacturer's curves corrected for site conditions or equations for correction to other ambient conditions provided to the Department shall be utilized for these corrections. [Rules 62-4.160(2), 62-210.200 (Definitions - PTE); and, PSD-FL-263.]
- F.3. Emissions Unit Operating Rate Limitation After Testing.** See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. [Rule 62-297.310(2), F.A.C.]
- F.4. Methods of Operation - Fuels.** Only pipeline quality natural gas or maximum 0.05 percent sulfur No. 2 fuel oil or superior grade of distillate fuel oil shall be fired in each unit. {Note: The limitation of this specific condition is more stringent than the NSPS 40 CFR 60 Subpart GG sulfur dioxide limitation and thus assures compliance with 40 CFR 60.333 and 60.334.} [Rules 62-4.160(2), 62-210.200 (Definitions - PTE), 62-213.410, 62-213.440(1), F.A.C.; and, PSD-FL-263.]

Air Pollution Control Technologies and Measures

- F.5. Maintenance of Dry Low NOx (DLN) Systems.** The DLN systems shall be maintained to minimize nitrogen oxides (NOx) emissions and carbon monoxide (CO) emissions, consistent with normal operation and maintenance practices. Operation of the DLN systems in the diffusion-firing mode shall be minimized when firing natural gas. [Rules 62-4.070, and 62-210.650, F.A.C.; and, PSD-FL-263.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection F. Emissions Units -009 & -010

Emission Limitations and Standards

Unless otherwise specified, the averaging time(s) for Specific Condition(s) F.6. - F.11. are based on the specified averaging time of the applicable test method.

- F.6. Nitrogen Oxides (NOx) - While firing Natural Gas.** The emission rate of NOx in the exhaust gas shall not exceed 10.5 ppm @15% O₂ on a 24-hr block average as measured by the continuous emission monitoring system (CEMS). In addition, NOx emissions calculated as NO₂ shall not exceed 59 pounds per hour (at ISO conditions) and 9 ppmvd @15% O₂ to be demonstrated by the initial "new and clean" GE performance stack test. Notwithstanding the applicable NOx limit during normal operation, reasonable measures shall be implemented to maintain the concentration of NOx in the exhaust gas at 9 ppmvd @15% O₂ or lower. Any tuning of the combustors for dry low NOx operation while firing gas shall result in subsequent NOx concentrations of 9 ppmvd @15% O₂ or lower. [PSD-FL-263.]
- F.7. Nitrogen Oxides (NOx) - While firing Fuel Oil.** The concentration of NOx in the exhaust gas shall not exceed 42 ppmvd at 15% O₂ on the basis of a 3-hr average as measured by the continuous emission monitoring system (CEMS). In addition, NOx emissions calculated as NO₂ shall not exceed 319 lb/hr (at ISO conditions) and 42 ppmvd @15% O₂ to be demonstrated by stack test. The permittee shall develop a NOx reduction plan when the hours of oil firing reach the allowable limit of 750 hours per year. This plan shall include a testing protocol designed to establish the maximum water injection rate and the lowest NOx emissions possible without affecting the actual performance of the gas turbine. The testing protocol shall set a range of water injection rates and attempt to quantify the corresponding NOx emissions for each rate and noting any problems with performance. Based on the test results, the plan shall recommend a new NOx emissions limiting standard and shall be submitted to the Department's Bureau of Air Regulation and the Compliance Authority for review. If the Department determines that a lower NOx emissions standard is warranted for oil firing, the PSD permit shall be revised. [PSD-FL-263.]
- F.8. Sulfur Dioxide (SO₂).** SO₂ emissions shall be limited by firing pipeline natural gas (sulfur content less than 2 grains per 100 standard cubic foot) or by firing No. 2 or superior grade distillate fuel oil with a maximum 0.05 percent sulfur for no more than 750 hours per year per unit. Emissions of SO₂ (at ISO conditions) shall not exceed 9.2 lb/hr (natural gas) and 98.1 lb/hr (fuel oil) as measured by applicable compliance methods. [PSD-FL-263.]
- F.9. Visible Emissions (VE).** VE shall not exceed 10 percent opacity. [PSD-FL-263.]
- F.10. Volatile Organic Compounds (VOC).** The concentration of VOC in the stack exhaust gas with the combustion turbine operating on natural gas shall exceed neither 1.4 ppmvw (ppmv wet) nor 2.8 lb/hr (ISO conditions) and neither 3.5 ppmvw nor 7 lb/hr (ISO conditions) while operating on oil to be demonstrated by initial stack test using EPA Method 18, 25 or 25A. [PSD-FL-263.]
- F.11. Carbon Monoxide (CO).** The concentration of CO in the stack exhaust gas shall exceed neither 12 ppmvd nor 38 lb/hr (at ISO conditions) while firing gas and neither 20 ppmvd nor 65 lb/hr (at ISO conditions) while firing oil based on stack test. The permittee shall demonstrate compliance with these limits by stack test using EPA Method 10. [PSD-FL-263.]

Excess Emissions

Rule 62-210.700 (Excess Emissions), F.A.C., cannot vary any requirement of a NSPS or NESHAP provision.

- F.12. Excess Emissions Allowed - Startup, Shutdown or Malfunction.** Excess emissions resulting from startup, shutdown, or malfunction shall be permitted provided that best operational practices are adhered to and the duration of excess emissions shall be minimized. Excess emissions occurrences shall in no case exceed two hours in any 24-hour period for other reasons unless specifically authorized by DEP for longer duration. Operation below 50% output shall be limited to 2 hours per unit cycle (breaker closed to breaker open). [Rule 62-210.700(1), F.A.C.; and, PSD-FL-263, Specific Condition 24.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection F. Emissions Units -009 & -010

- F.13. Best Operational Practices to Minimize Excess Emissions.** The permittee shall follow the best operational practices to minimize excess emissions during startup and shutdown as described in **Appendix BOP, Best Operational Practices for Start up and Shutdown.** [Rule 62-210.700(2) and 62-213.440(1) (Operational Requirements that Assure Compliance), F.A.C. and Proposed by the Applicant in the Renewal Application.]
- F.14. Excess Emissions Prohibited.** Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. These emissions shall be included in the 24-hr average for NO_x. [Rule 62-210.700(4), F.A.C.; and, PSD-FL-263.]

Continuous Emissions Monitoring Systems (CEMS)

{Permitting Note: The following continuous monitors are installed on these units: NO_x and CO₂.}

- F.15. CEMS - NO_x.** The permittee shall install, calibrate, maintain, and operate a CEMS in the stack to measure and record the NO_x emissions from these units. Upon request from EPA or DEP, the CEMS emission rates for NO_x on these units shall be corrected to ISO conditions to demonstrate compliance with the NO_x standard established in 40 CFR 60.332. [PSD-FL-263.]
- F.16. CEMS - NO_x.** Continuous compliance with the NO_x emission limits shall be demonstrated with the CEMS based on the applicable averaging time of 24-hr block average (DLN). Based on CEMS data, a separate compliance determination is conducted at the end of each operating day and a new average emission rate is calculated from the arithmetic average of all valid hourly emission rates from the previous operating day. A valid hourly emission rate shall be calculated for each hour in which at least two NO_x concentrations are obtained at least 15 minutes apart. Valid hourly emission rates shall not include periods of start up, shutdown, or malfunction unless prohibited by Rule 62-210.700 F.A.C. [Rules 62-4.070 and 62-210.700, F.A.C., 40 CFR 75; and, BACT.]
- F.17. CEMS.** All CEMS shall be in continuous operation except for breakdowns, repairs, calibration checks, and zero and span adjustments. These CEMS shall meet minimum frequency of operation requirements: one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period. Data recorded during periods of continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments shall not be included in the data average. [40 CFR 60.13; and, PSD-FL-263.]
- F.18. Continuous Monitoring Certification and Quality Assurance Requirements.** The monitoring devices shall comply with the certification and quality assurance, and any other applicable requirements of Rule 62-297.520, F.A.C., 40 CFR 60.13, including certification of each device in accordance with 40 CFR 60, Appendix B, Performance Specifications and 40 CFR 60.7(a)(5) or 40 CFR Part 75. Quality assurance procedures must conform to all applicable sections of 40 CFR 60, Appendix F or 40 CFR 75. [PSD-FL-263.]

Monitoring Requirements

- F.19. NO_x CEMS in lieu of Water to Fuel Ratio.** The NO_x CEMS shall be used in lieu of the water/fuel monitoring system for reporting excess emissions in accordance with 40 CFR 60.334(c)(1), Subpart GG (1998 version). The calibration of the water/fuel monitoring device required in 40 CFR 60.335(c)(2) (1998 version) will be replaced by the 40 CFR 75 certification tests of the NO_x CEMS. [PSD-FL-263.]
- F.20. Natural Gas Monitoring Schedule.** A custom fuel monitoring schedule pursuant to 40 CFR 75 Appendix D for natural gas may be used in lieu of the daily sampling requirements of 40 CFR 60.334 (b)(2) provided the following requirements are met:
- The permittee shall apply for an Acid Rain permit within the deadlines specified in 40 CFR 72.30. The permittee shall submit a monitoring plan, certified by signature of the Designated Representative, that commits to using a primary fuel of pipeline supplied natural gas (sulfur content less than 20 gr/100 scf pursuant to 40 CFR 75.11(d)(2)).

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection F. Emissions Units -009 & -010

- Each unit shall be monitored for SO₂ emissions using methods consistent with the requirements of 40 CFR 75 and certified by the USEPA.

This custom fuel monitoring schedule will only be valid when pipeline natural gas is used as a primary fuel. If the primary fuel for these units is changed to a higher sulfur fuel, SO₂ emissions must be accounted for as required pursuant to 40 CFR 75.11(d). Sulfur content monitoring with respect to 40 CFR 60, Subpart GG is not required for gaseous fuels that meet the 40 CFR 60.331(u) definition of "natural gas" in accordance with the procedures specified in 40 CFR 60.334(h)(3).

[40 CFR 60.334(h)(3); and, PSD-FL-263.]

- F.21. Fuel Oil Monitoring Schedule.** The following monitoring schedule for No. 2 or superior grade fuel oil shall be followed: For all bulk shipments of No. 2 fuel oil received at this facility an analysis which reports the sulfur content and nitrogen content of the fuel shall be provided by the fuel vendor. The analysis shall also specify the methods by which the analyses were conducted and shall comply with the requirements of 40 CFR 60.335. The use of the NO_x CEMS satisfies the requirement for nitrogen monitoring. [PSD-FL-263, Specific Condition 44; and, 1050233-015-AC.]

{Permitting note: The use of bill of ladings (shipment records) satisfies the sulfur content monitoring requirement for fuel oils.}

Test Methods and Procedures

- F.22. Test Methods.** Required tests shall be performed in accordance with the following reference methods:

Method(s)	Description of Method(s) and Comment(s)
EPA Methods 1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
EPA Methods 6, 6A, 6B or 6C	Methods for Determining SO ₂ Emissions
EPA Method 7, 7A, 7C, 7D or 7E	Determination of NO _x Emissions
EPA Method 9	Visual Determination of the Opacity of Emissions (VE)
EPA Method 10	Determination of CO Emissions
EPA Method 18	Measurement of Gaseous Organic Compound Emissions (VOC)
EPA Method 20	Determination of NO _x , SO ₂ and Diluent Emissions from Stationary Gas Turbines

The above methods are described in Chapter 62-297, F.A.C. and/or 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Chapter 62-297, F.A.C.]

- F.23. Annual Compliance Test.** Unless otherwise specified by this permit, during each federal fiscal year (October 1st to September 30th), Emissions Unit ID Nos. -009 and -010 shall be tested to demonstrate compliance with the emission limitations and standards for VE, CO and NO_x. The NO_x RATA test data may be used to demonstrate compliance with the annual test requirement, provided the testing requirements (notification, procedures and reporting) of Chapter 62-297, F.A.C. are met. [Rule 62-297.310(7), F.A.C.; and, PSD-FL-263.]
- F.24. Compliance Test Prior To Renewal.** Prior to permit renewal, Emissions Unit ID Nos. -009 and -010 shall be tested to demonstrate compliance with the emission limitations and standards for VE, CO and NO_x. [Rule 62-297.310(7)(a)3., F.A.C.; and, PSD-FL-263.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection F. Emissions Units -009 & -010

- F.25. Common Testing Requirements.** Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]
- F.26. VE Testing Not Required.** By this permit, annual emissions compliance testing for visible emissions is not required for this emissions unit while burning only liquid fuel for less than 400 hours per year. See Specific Condition **TR7**. [Rule 62-297.310(7)(a)4., F.A.C.]
- F.27. Testing.** Initial (I) tests shall be conducted after any modifications (and shake down period not to exceed 100 days after re-starting the CT) of air pollution control equipment such as change or tuning of combustors. Annual (A) compliance tests shall be performed during every federal fiscal year (October 1 - September 30) pursuant to Rule 62-297.310(7), F.A.C., on each unit while firing natural gas as well as while firing fuel oil. The following reference methods shall be used:
EPA Reference Method 9, VE (I, A);
EPA Reference Method 10, CO (I, A);
EPA Reference Method 20, NO_x and SO₂. Initial test only for compliance with 40 CFR 60 Subpart GG and (I, A) short-term NO_x BACT limits (EPA reference Method 7E, RATA test data may be used to demonstrate compliance for annual test requirements); and,
EPA Reference Method 18, 25 and/or 25A, VOC. Initial test only.
[PSD-FL-263.]
- F.28. CO and NO_x Testing.** Annual compliance testing for CO may be conducted at less than capacity when compliance testing is conducted concurrent with the annual RATA testing for the NO_x CEMS required pursuant to 40 CFR 75. [PSD-FL-263.]
- F.29. Compliance with the SO₂ Emission Limits.** The use of pipeline natural gas, is the method for determining compliance for SO₂. For the purposes of demonstrating compliance with the 40 CFR 60.333 SO₂ standard, ASTM methods D4084-82 or D3246-81 (or equivalent) for sulfur content of gaseous fuel shall be utilized in accordance with the EPA-approved custom fuel monitoring schedule or natural gas supplier data may be submitted or the natural gas sulfur content referenced in 40 CFR 75 Appendix D may be utilized. However, the applicant is responsible for ensuring that the procedures in 40 CFR 60.335 or 40 CFR 75 are used when determination of fuel sulfur content is made. Sulfur content monitoring with respect to 40 CFR 60, Subpart GG is not required for gaseous fuels that meet the 40 CFR 60.331(u) definition of "natural gas" in accordance with the procedures specified in 40 CFR 60.334(h)(3). Analysis may be performed by the owner or operator, a service contractor retained by the owner or operator, the fuel vendor, or any other qualified agency pursuant to 40 CFR 60.335(e) (1998 version). [40 CFR 60.335(d) and 40 CFR 60.334(h)(3); and, PSD-FL-263.]
- F.30. VOC Testing.** An initial test was required to demonstrate compliance with the VOC emission limit. Thereafter, the CO emission limit and periodic tuning data shall be employed as a surrogate and no annual testing is required. [PSD-FL-263.]
- F.31. Operating Rate During Testing.** Testing of emissions shall be conducted with the combustion turbine operating at permitted capacity. Permitted capacity is defined as 90-100 percent of the maximum heat input rate allowed by the permit, corrected for the average ambient air temperature during the test (with 100 percent represented by a curve depicting heat input vs. ambient temperature). If it is impracticable to test at permitted capacity, the source may be tested at less than permitted capacity. In this case, subsequent operation is limited by adjusting the entire heat input vs. ambient temperature curve downward by an increment equal to the difference between the maximum permitted heat input (corrected for ambient temperature) and 110 percent of the value reached during the test until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purposes of additional compliance testing to regain the permitted capacity. Procedures for these tests shall meet all applicable requirements (i.e., testing time frequency, minimum compliance duration, etc.) of Chapters 62-204 and 62-297, F.A.C. [PSD-FL-263.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection F. Emissions Units -009 & -010

Recordkeeping and Reporting Requirements

See Appendix RR, Facility-wide Reporting Requirements, for additional reporting requirements.

F.32. Reporting Schedule. The following report shall be submitted to the Compliance Authority:

Report	Reporting Deadline(s)	Related Condition(s)
NSPS Excess Emissions and Monitoring System Performance	Every 6 months (semi-annual), except when more frequent reporting is specifically required	F.34.

[40 CFR 60, Subpart A.]

F.33. NO_x CEMS for Reporting Excess Emissions. Excess Emissions and Monitoring System Performance Reports shall be submitted as specified in 40 CFR 60.7(c). CEM monitor downtime shall be calculated and reported according to the requirements of 40 CFR 60.7(c)(3) and 40 CFR 60.7(d)(2). Periods when NO_x emissions (ppmvd @ 15% oxygen) are above the BACT standards shall be reported to the DEP Southwest District Office within one working day (verbally) followed up by a written explanation no later than three (3) working days (alternatively by facsimile within one working day). [PSD-FL-263.]

NSPS 40 CFR 60 Requirements

F.34. NSPS Requirements - Subpart A. This emissions unit shall comply with all applicable requirements of 40 CFR 60, Subpart A, General Provisions, including:

- 40 CFR 60.7, Notification and Recordkeeping
- 40 CFR 60.8, Performance Tests
- 40 CFR 60.11, Compliance with Standards and Maintenance Requirements
- 40 CFR 60.12, Circumvention
- 40 CFR 60.13, Monitoring Requirements
- 40 CFR 60.19, General Notification and Reporting Requirements,

which have been adopted by reference in Rule 62-204.800(8)(d), F.A.C., except that the Secretary is not the Administrator for purposes of 40 CFR 60.4, 40 CFR 60.8(b)(2) and (3), 40 CFR 60.11(e)(7) and (8), 40 CFR 60.13(g), (i) and (j)(2), and 40 CFR 60.16. These emissions units shall comply with Appendix 40 CFR 60 Subpart A included with this permit. [Rule 62-204.800(8)(d), F.A.C.]

F.35. NSPS Requirements - Subpart GG. Except as otherwise provided in this permit, the combustion turbine shall comply with all applicable provisions of 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines, adopted by reference in Rule 62-204.800(8)(b), F.A.C., except that the Secretary is not the Administrator for purposes of 40 CFR 60.334(b)(2) and 40 CFR 60.335(f)(1). The Subpart GG requirement to correct test data to ISO conditions applies, but such correction is not required to demonstrate compliance with the non-NSPS permit standard(s). These emissions units shall comply with **Appendix 40 CFR 60 Subpart GG** attached to this permit. [Rule 62-204.800(8)(b)39., F.A.C.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection G. Emissions Units -011 & -012

The specific conditions in this section apply to the following emissions unit(s):

E.U. ID No.	Brief Description
-011	Nominal 165 MW Simple Cycle Turbine No. 4
-012	Nominal 165 MW Simple Cycle Turbine No. 5

These emissions units are two General Electric PG7241 FA simple cycle gas turbine generators with a nominal output of 165 megawatts (MW) each. Each unit may operate up to 4,380 hours per year. The units are fired exclusively with natural gas, which minimizes sulfur dioxide (SO₂) emissions. The units were designed and constructed with dry low NO_x (DLN) burner technology for the control of nitrogen oxides (NO_x) emissions. The advanced burner design reduces incomplete combustion and minimizes carbon monoxide (CO), particulate matter (PM/PM₁₀), and volatile organic compound (VOC) emissions. CT No. 4 began operation on February 23, 2007. The stack parameters for CT No. 4 are: height, 114 feet; diameter, 18 feet; exit temperature, 1,117 degrees F; and, actual stack gas flow rate, 2,393,587 acfm. CT No. 5 began operation on February 23, 2007. The stack parameters for CT No. 5 are: height, 114 feet; diameter, 18 feet; exit temperature, 1,117 degrees F; and, actual stack gas flow rate, 2,393,587 acfm.

{Permitting note(s): These emissions units are regulated under Acid Rain, Phase II; NSPS - 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines, adopted and incorporated by reference in Rule 62-204.800(8)(b), F.A.C.; Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD) [PSD-FL-363]; Rule 62-212.400(6), F.A.C., Best Available Control Technology (BACT) Determination; and, Rule 62-296.470, F.A.C., Clean Air Interstate Rule (CAIR).}

Equipment

G.1. Gas Turbines. The permittee is authorized to tune, operate, and maintain two General Electric Model PG7241FA gas turbine-electrical generator sets with a nominal generating capacity of 165 MW each. Each gas turbine will be equipped with a DLN combustion system and an inlet air filtration system. Each unit shall include a SpeedtronicTM Mark V automated gas turbine control system (or equivalent). [PSD-FL-363/1050233-018-AC, Specific Condition 3.]

G.2. Simple Cycle, Intermittent Operation. Each turbine shall operate only in simple cycle mode not to exceed the permitted hours of operation allowed by this permit. This restriction is based on the permittee's request, which formed the basis of the PSD applicability and BACT determinations and resulted in the emission standards specified in this permit. For any request to convert this unit to combined cycle operation by installing/connecting to heat recovery steam generators, including changes to the fuel quality or quantity related to combined cycle conversion which may cause an increase in short or long-term emissions, the permittee may be required to submit a full PSD permit application complete with a new proposal of the BACT as if the unit had never been built. [Rules 62-212.400(12) and 62-212.400 (BACT), F.A.C.; and PSD-FL-363/1050233-018-AC, Specific Condition 8.]

Essential Potential to Emit (PTE) Parameters

G.3. Hours of Operation. Each gas turbine shall operate no more than 4,380 hours during any consecutive 12 months. Restrictions on individual methods of operation are specified in separate conditions. [Rule 62-210.200 (Definitions - Potential to Emit (PTE), F.A.C.; and, PSD-FL-363/1050233-018-AC, Specific Condition 5.]

G.4. Permitted Capacity. The maximum heat input rate for each gas turbine is 1,834 million British thermal units (MMBtu) per hour when firing natural gas based on a compressor inlet air temperature of 59 degrees F, the higher heating value (HHV) of natural gas, and 100% load. Heat input rates will vary depending upon gas turbine characteristics, ambient conditions, alternate methods of operation, and evaporative cooling. The permittee shall provide manufacturer's performance curves (or equations) that correct for site conditions to

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the Permitting and Compliance Authorities upon request. Operating data may be adjusted for the appropriate site conditions in accordance with the performance curves and/or equations on file with the Department. [Rules 62-4.160(2), 62-210.200 (Definitions - PTE); 62-212.400 (BACT), and, PSD-FL-363/1050233-018-AC, Specific Condition 6.]

- G.5.** Emissions Unit Operating Rate Limitation After Testing. See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. [Rule 62-297.310(2), F.A.C.]
- G.6.** Methods of Operation - Fuels. Each gas turbine shall fire only natural gas containing no more than 2.0 grains of sulfur (S) per 100 standard cubic feet (SCF) of natural gas. [Rules 62-4.160(2), 62-210.200 (Definitions - PTE), 62-212.400 (BACT), 62-213.410, 62-213.440(1), F.A.C.; and, PSD-FL-363/1050233-018-AC, Specific Condition 7.]

Air Pollution Control Technologies and Measures

- G.7.** Maintenance of Dry Low NOx (DLN) Systems. The permittee shall operate and maintain the General Electric DLN 2.6 combustion system (or better) to control NOx emissions from the gas turbines when firing natural gas. The system shall be maintained and tuned in accordance with the manufacturer's recommendations. [Rules 62-4.070, and 62-210.650, F.A.C.; and, PSD-FL-363/1050233-018-AC, Specific Condition 4.]
- G.8.** Operating Procedures. The BACT determinations established by air construction permit PSD-FL-363/1050233-018-AC rely on "good operating practices" to reduce emissions. Therefore all operators and supervisors shall be properly trained to operate and ensure maintenance of the gas turbines, and pollution control systems in accordance with the guidelines and procedures established by each manufacturer. The training shall include good operating practices as well as methods for minimizing excess emissions. [Rules 62-4.070(3) and 62-212.400 (BACT), F.A.C.; and PSD-FL-363/1050233-018-AC, Specific Condition 17.]

Emission Limitations and Standards

Unless otherwise specified, the averaging time(s) for Specific Condition(s) **G.10. - G.11.** are based on the specified averaging time of the applicable test method.

- G.9.** NSPS Requirements. The BACT emissions standards are as stringent as or more stringent than the limits imposed by the applicable NSPS 40 CFR 60 subpart GG provisions. Some separate reporting and monitoring may be required by the individual subparts. These provisions include a requirement to correct test data to International Organization for Standardization (ISO) conditions; however, such correction is not used for compliance determinations with the BACT standards. [Rule 62-204.800(8)(b), F.A.C.; 40 CFR 60, Subparts A and GG; and PSD-FL-363/1050233-018-AC, Specific Condition 2.]

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G.10. Emission Standards. Emissions from each gas turbine shall not exceed the following emission standards:

Air Pollutant	Emission Standard^e	Averaging Time	Compliance Method	Basis
Carbon Monoxide (CO) ^a	99.0 tons (Emissions Cap)	12-month rolling total both units combined	CEMS	Avoid PSD
Nitrogen Oxides (NOx) ^b	9.0 ppmvd @ 15% O ₂	24-hour block, CEMS	CEMS	BACT
PM/PM ₁₀ ^c	10% opacity	6-minute block	EPA Method 9 Test	BACT
	2 grains S/100 SCF of gas	N/A	Recordkeeping	
Sulfur Dioxide (SO ₂) ^d	2 grains S/100 SCF of gas	N/A	Recordkeeping	BACT

- Continuous compliance shall be demonstrated with the CO emissions cap by data collected from the required continuous emissions monitoring systems (CEMS) for both units combined.
- Continuous compliance shall be demonstrated with the 24-hour block NOx emissions limit by data collected from the required CEMS.
- The fuel sulfur specifications combined with the efficient combustion design and operation of the gas turbine represents BACT for particulate matter (PM/PM₁₀) emissions. No stack tests are required. Compliance with the CO and visible emissions standards shall serve as indicators of good combustion. {Permitting Note: Maximum expected PM/PM₁₀ emissions from each gas turbine are approximately 18 lb/hour.}
- The fuel sulfur specifications effectively limit the potential emissions of sulfur dioxide (SO₂) from each gas turbine and represent BACT for SO₂ emissions. No stack tests are required. {Permitting Note: Maximum expected SO₂ emissions from each gas turbine are approximately 9.5 lb/hour.}
- The mass emission rate standards are based on a turbine inlet condition of 59 degrees F and the higher heating value of natural gas. Mass emission rates may be adjusted from actual test conditions in accordance with the performance curves and/or equations on file with the Department.

{Permitting Note: In combination with the annual restriction on hours of operation, the above emissions standards effectively limit annual potential emissions from both gas turbines to: 99 tons/year of CO, 267 tons/year of NOx, 79 tons/year of PM/PM₁₀, 42 tons/year of SO₂, 5 tons/year of sulfuric acid mist (SAM), and 12 tons/year of VOC.}

[Rule 62-212.400 (BACT), F.A.C.; Rule 62-4.070(3), F.A.C.; and PSD-FL-363/1050233-018-AC, Specific Condition 9.]

G.11. Alternate Visible Emissions Standard. Visible emissions due to startups, shutdowns, and malfunctions shall not exceed 10% opacity except for up to ten, 6-minute averaging periods during a calendar day, which shall not exceed 20% opacity. [Rule 62-212.400 (BACT), F.A.C. and PSD-FL-363/1050233-018-AC, Specific Condition 20.]

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{Permitting Note: The above condition applies only to the SIP based emissions standards specified in Specific Condition G.10.}

Excess Emissions

Rule 62-210.700 (Excess Emissions), F.A.C., cannot vary any requirement of a NSPS or NESHAP provision.

G.12. Allowable NO_x Data Exclusions. Provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions are minimized, NO_x continuous monitoring data collected during periods of startup, shutdown, malfunction and DLN tuning may be excluded from the 24-hr block compliance demonstrations only in accordance with the following requirements. All periods of data excluded shall be consecutive for each such episode and only data obtained during the described episodes (startup, shutdown, malfunction, and DLN tuning) may be excluded. As provided by the authority in Rule 62-210.700(5), F.A.C., the following conditions replace the provisions in Rule 62-210.700(1), F.A.C.

- a. *Startup:* In accordance with the procedures described in the CEMS Data Requirements of this section, no more than the first 30 minutes of CEMS data shall be excluded for each gas turbine startup. For startups of less than 30 minutes in duration, only those minutes attributable to startup shall be excluded.
- b. *Shutdown:* In accordance with the procedures described in the CEMS Data Requirements of this section, no more than the first 20 minutes of CEMS data shall be excluded for each gas turbine shutdown. For shutdowns less than 20 minutes in duration, only those minutes attributable to shutdown shall be excluded.
- c. *Malfunction:* In accordance with the procedures described in the CEMS Data Requirements of this section, no more than 120 minutes of CEMS data shall be excluded in a 24-hour period for each gas turbine due to malfunctions. Within one (1) working day of occurrence, the owner or operator shall notify the Compliance Authority of any malfunction resulting in the exclusion of CEMS data.
- d. *DLN Tuning:* CEMS data collected during initial or other DLN tuning sessions shall be excluded from the compliance demonstrations provided the tuning session is performed in accordance with the manufacturer's specifications. Prior to performing any tuning session, the permittee shall provide the Compliance Authority with an advance notice of at least one (1) day that details the activity and proposed tuning schedule. The notice may be by telephone, facsimile transmittal, or electronic mail. [Design; Rule 62-4.070(3), F.A.C.; and PSD-FL-363/1050233-018-AC, Specific Condition 21.]

The permittee shall notify the Compliance Authority within one working day of discovering any emissions in excess of a CEMS standard subject to the specified averaging period. All such reasonably preventable emissions shall be included in any CEMS compliance determinations. All valid emissions data (including data collected during startup, shutdown, malfunction, and DLN tuning) shall be used to report annual emissions for the Annual Operating Report (AOR) and demonstration of compliance with the CO emissions cap. [Rules 62-4.070(3), 62-210.200, 62-212.400 (BACT) and 62-210.700, F.A.C.; and PSD-FL-363/1050233-018-AC, Specific Condition 21.]

{Permitting Note: The above condition applies only to the SIP based emissions standards specified in Specific Condition G.10.}

G.13. Excess Emissions Allowed - Startup, Shutdown or Malfunction. Excess emissions resulting from startup, shutdown or malfunction shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]

G.14. Best Operational Practices to Minimize Excess Emissions. The permittee shall follow the best operational practices to minimize excess emissions during startup and shutdown as described in **Appendix**

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BOP, Best Operational Practices for Start up and Shutdown. [Rule 62-210.700(2) and 62-213.440(1) (Operational Requirements that Assure Compliance), F.A.C. and Proposed by the Applicant in the Renewal Application.]

- G.15. Excess Emissions Prohibited.** Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. All such preventable emissions shall be included in any compliance determinations based on CEMS data. [Rule 62-210.700(4), F.A.C.; and, PSD-FL-363/1050233-018-AC, Specific Condition 19.]

Continuous Emissions Monitoring Systems (CEMS)

{Permitting Note: The following continuous monitors are installed on these units: NO_x, CO and CO₂.}

- G.16. CEMS.** The permittee shall calibrate, maintain, and operate CEMS to measure and record the emissions of CO and NO_x from each gas turbine in a manner sufficient to demonstrate continuous compliance with the CEMS emission standards of this section.
- CO Monitor:*** Each CO monitor shall be certified pursuant to 40 CFR 60, Appendix B, Performance Specification 4 or 4A. Quality assurance procedures shall conform to the requirements of 40 CFR 60, Appendix F. The annual and required RATA tests shall be performed using EPA Method 10 in Appendix A of 40 CFR 60 and shall be based on a continuous sampling train. The CO monitor span values shall be set appropriately, considering the allowable methods of operation and corresponding emission standards.
 - NO_x Monitor:*** Each NO_x monitor shall be certified pursuant to the specifications of 40 CFR 75. Quality assurance procedures shall conform to the requirements of 40 CFR 75. The annual and required RATA tests required for the NO_x monitor shall be performed using EPA Method 20 or 7E in Appendix A of 40 CFR 60.
 - Diluent Monitor:*** The oxygen (O₂) or carbon dioxide (CO₂) content of the flue gas shall be monitored at the location where CO and NO_x are monitored to correct the measured emissions rates to 15% oxygen. If a CO₂ monitor is installed, the oxygen content of the flue gas shall be calculated using F-factors that are appropriate for the fuel fired. Each monitor shall comply with the performance and quality assurance requirements of 40 CFR 75.
- [Rules 62-4.070(3), 62-210.800, 62-212.400 (BACT) and 62-297.520, F.A.C.; and PSD-FL-363/1050233-018-AC, Specific Condition 22.]
- G.17. CEMS Data Requirements.** The CEMS shall be calibrated, maintained, and operated in the gas turbine stacks to measure and record the emissions of CO, and NO_x in a manner sufficient to demonstrate compliance with the CEMS-based emission limits of this section. The CEMS shall express the results in units of ppmvd corrected to 15% oxygen. Upon request by the Department, the CEMS emission rates shall be corrected to ISO conditions to demonstrate compliance with the applicable standards of 40 CFR 60.332.

- Valid Hourly Averages for Compliance:*** Each CEMS shall be designed and operated to sample, analyze, and record data evenly spaced over the hour at a minimum of one measurement per minute. All valid measurements collected during an hour (except for the allowable NO_x data exclusions), shall be used to calculate a 1-hour block average that begins at the top of each hour. Each 1-hour block average shall be computed using at least one data point in each fifteen-minute quadrant of an hour, where the unit combusted fuel during that quadrant of an hour. Notwithstanding this requirement, a 1-hour average shall be computed from at least two data points separated by a minimum of 15 minutes (where the unit operates for more than one quadrant of an hour). If less than two such data points are available, there is insufficient data and the 1-hour block average is not valid. Also, if an allowable exclusion episode should occur over two separate hourly averages, only those minutes attributed to the specific episode shall be excluded from each hour. *{Permitting Note: For example, a 20-minute startup begins at 2:50 p.m. and*

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ends at 3:10 pm. This means that 10 minutes of startup data would be excluded from the first hourly average and 10 minutes would be excluded from the second hourly average. The first hourly average (2:00 – 3:00 p.m.) is not a valid hourly average because there is insufficient data. The second hourly average (3:00 – 4:00 p.m.) is a valid hourly average consisting of 50 minutes of monitoring data. }

- b. *24-hour Block Averages:* A 24-hour block shall begin at midnight of each operating day and shall be calculated from 24 consecutive valid hourly average concentration values. If a unit operates less than 24 hours during the block, or there are less than 24 valid hourly averages available, the 24-hour block average shall be the average of all available valid hourly average concentration values for the 24-hour block. {Permitting Note: For purposes of determining compliance with the 24-hour CEMS standards, the missing data substitution methodology of 40 CFR Part 75, Subpart D, shall not be utilized. Instead, the 24-hour block average shall be determined using the remaining hourly data in the 24-hour block and periods of missing CEMS data are to be reported as monitor downtime in the excess emissions and monitoring performance reports. For example, the “24-hr block average” may consist of only 6 valid operating hours for the day.}
- c. *12-Month Rolling Total:* By the end of each month, each CEMS shall determine a 12-month rolling total of CO emissions from each gas turbine and the combined total. The 12-month rolling total shall be based on all valid CO CEMS data collected, including startups, shutdowns, and malfunctions.
- d. *Data Exclusion:* Except for monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, each CEMS shall monitor and record emissions during all operations including episodes of startups, shutdowns, malfunctions, and DLN tuning. Limited amounts of NO_x CEMS emissions data recorded during some of these episodes may be excluded from the corresponding compliance demonstration subject to the provisions of Condition No. G.21 in this section. The permittee shall minimize the duration of data excluded for such episodes to the extent practicable.
- e. *Monitor Availability.* Monitor availability for each CEMS used to demonstrate compliance shall be 95% or greater in any calendar quarter. Monitor availability shall be calculated consistent with 40 CFR §60.334 and reported in the State Implementation Plan (SIP) and NSPS excess emissions reports required in Condition G.29. In the event that 95% availability is not achieved, the permittee shall provide the Department with a report identifying the problems in achieving 95% availability and a plan of corrective actions that will be taken to achieve 95% availability. The permittee shall implement the reported corrective actions within the next calendar quarter. Failure to take corrective actions or continued failure to achieve the minimum monitor availability shall be violations of this permit, except as otherwise authorized by the Compliance Authority.

[Rules 62-4.070(3) and 62-212.400 (BACT), F.A.C.; and PSD-FL-363/1050233-018-AC, Specific Condition 23.]

G.18. CEMS - CO and NO_x. Continuous compliance with the NO_x and CO emissions standards shall be demonstrated with data collected from the required continuous emissions monitoring systems (CEMS).

[Rules 62-297.310(7)(a) and (b), F.A.C.; and PSD-FL-363/1050233-018-AC, Specific Condition 15.]

Test Methods and Procedures

G.19. Test Methods. Required tests shall be performed in accordance with the following reference method(s):

Method(s)	Description of Method(s) and Comment(s)
EPA Methods 1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
EPA Methods 6, 6A, 6B or 6C	Methods for Determining SO ₂ Emissions
EPA Method 7, 7A, 7C, 7D or 7E	Determination of NO _x Emissions

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Method(s)	Description of Method(s) and Comment(s)
EPA Method 9	Visual Determination of the Opacity of Emissions (VE)
EPA Method 10	Determination of CO Emissions
EPA Method 20	Determination of NO _x , SO ₂ and Diluent Emissions from Stationary Gas Turbines

The above methods are described in Chapter 62-297, F.A.C. and/or 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Chapter 62-297, F.A.C.]

- G.20. Annual Compliance Test.** Unless otherwise specified by this permit, during each federal fiscal year (October 1st to September 30th), Emissions Unit ID Nos. -011 and -012 shall be tested to demonstrate compliance with the emission limitations and standards for VE and NO_x. The NO_x RATA test data may be used to demonstrate compliance with the annual test requirement, provided the testing requirements (notification, procedures and reporting) of Chapter 62-297, F.A.C. are met. For each VE test, emissions of CO and NO_x recorded by the CEMS shall also be reported. [Rule 62-297.310(7), F.A.C.; and, PSD-FL-363/1050233-018-AC, Specific Condition 14.]
- G.21. Compliance Test Prior To Renewal.** Prior to permit renewal, Emissions Unit ID Nos. -011 and -012 shall be tested to demonstrate compliance with the emission limitations and standards for VE, CO and NO_x. The CO and NO_x RATA test data may be used to demonstrate compliance with the renewal test requirement, provided the testing requirements (notification, procedures and reporting) of Chapter 62-297, F.A.C. are met. [Rule 62-297.310(7)(a)3., F.A.C.; and, PSD-FL-263.]
- G.22. Common Testing Requirements.** Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]
- G.23. Special Compliance Tests.** The Department may require the permittee to conduct additional tests after major replacement or major repair of any air pollution control equipment, such as the DLN combustors, etc. [Rule 62-297.310(7)(b), F.A.C.; and PSD-FL-363/1050233-018-AC, Specific Condition 16.]

Recordkeeping and Reporting Requirements

See Appendix RR, Facility-wide Reporting Requirements, for additional reporting requirements.

- G.24. Reporting Schedule.** The following report shall be submitted to the Compliance Authority:

Report	Reporting Deadline(s)	Related Condition(s)
NSPS Excess Emissions and Monitoring System Performance	Every 6 months (semi-annual), except when more frequent reporting is specifically required	G.25. & G.30.

[40 CFR 60, Subpart A.]

- G.25. Excess Emissions Reporting.**

- Malfunction Notification:** If NO_x data will be excluded due to a malfunction, the permittee shall notify the Compliance Authority within one working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Compliance Authority may request a written summary report of the incident.
- SIP Excess Emissions Report:** Within 30 days following the end of each calendar quarter, the permittee shall submit a report to the Compliance Authority of the following for each gas turbine: a summary of the 24-hour NO_x compliance periods for the quarter; a summary of NO_x data excluded due to malfunctions

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for the quarter; a summary of the 12-month rolling CO emissions totals for the quarter; a summary of any RATA tests performed during the quarter; and a summary of the CEMS systems monitor availability for the quarter.

- (1) If four consecutive quarterly reports demonstrate compliance with the CEMS-based emissions standards, the reporting frequency may be reduced to semiannual reporting. As part of the fourth consecutive satisfactory quarterly report, the permittee shall provide written notification of its intent to reduce the reporting frequency to a semiannual basis. The notification shall include a statement that the units were in full compliance during the four consecutive quarters and that reporting will be reduced to a semiannual basis. Semiannual reports shall include above information required for each quarter in the semiannual period. The permittee shall continue to comply with all other record keeping and monitoring provisions.
- (2) If reports are being submitted on a semiannual basis and a unit is not in compliance with the CEMS-based emissions standards, the permittee shall immediately (within one day of detection) notify the Compliance Authority of the compliance status and reestablish quarterly reporting beginning with the current quarter. If compliance is reestablished for four consecutive quarters, semiannual reporting may resume as specified above.

- c. *NSPS Excess Emissions Reports:* Within thirty (30) days following each calendar semiannual period, the permittee shall submit a report including any applicable periods of excess emissions and monitoring systems performance as defined in 40 CFR Part 60, Subpart GG that occurred during the previous semi-annual period to the Compliance Authority. *{Permitting Note: If there are no periods of excess emissions as defined in 40 CFR Part 60 Subpart GG, a statement to that effect may be submitted with the SIP Quarterly Report to suffice for the NSPS Semi-Annual Report.}*

[Rules 62-4.070(3), 62-4.130, 62-204.800, 62-210.700(6) and 62-212.400 (BACT), F.A.C.; 40 CFR 60.7 and 60.334; and PSD-FL-363/1050233-018-AC, Specific Condition 29.]

- G.26. Monitoring and Recordkeeping of Capacity.** The permittee shall monitor and record the operating rate of the gas turbine on a daily average basis, considering the number of hours of operation during each day (including the times of startup, shutdown, malfunction, and DLN tuning). This shall be achieved through monitoring daily rates of consumption and heat content of each allowable fuel in accordance with the provisions of 40 CFR 75 Appendix D, and recording the data using a monitoring component of the CEMS system required above. [Rules 62-4.070(3) and 62-212.400 (BACT), F.A.C.; and PSD-FL-363/1050233-018-AC, Specific Condition 24.]

- G.27. Monthly Operations Summary Recordkeeping.** By the fifth calendar day of each month, the permittee shall record the following for each fuel in a written or electronic log for the gas turbine for the previous month of operation: hours of operation for the month and for the rolling 12-month total. Information recorded and stored as an electronic file shall be available for inspection and printing within at least three days of a request by the Department. The fuel consumption shall be monitored in accordance with the provisions of 40 CFR 75 Appendix D. [Rules 62-4.070(3) and 62-212.400 (BACT), F.A.C.; and PSD-FL-363/1050233-018-AC, Specific Condition 25.]

- G.28. Fuel Sulfur Records.** Compliance with the fuel sulfur limit for natural gas shall be demonstrated by keeping reports obtained from the vendor indicating the average sulfur content of the natural gas being supplied from the pipeline for each month of operation. Methods for determining the sulfur content of the natural gas shall be ASTM methods D4084-82, D4468-85, D5504-01, D6228-98 and D6667-01, D3246-81 or more recent versions. These methods shall be used to determine the fuel sulfur content in conjunction with the provisions of 40 CFR 75 Appendix D. Sulfur content monitoring with respect to 40 CFR 60, Subpart GG is not required for gaseous fuels that meet the 40 CFR 60.331(u) definition of "natural gas" in accordance with the procedures specified in 40 CFR 60.334(h)(3). [40 CFR 60.334(h)(3); Rules 62-4.070(3), 62-212.400(BACT), F.A.C.; and, PSD-FL-363/1050233-018-AC, Specific Condition 26.]

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G.29. CEMS RATA Reports. At least 15 days prior to conducting any Relative Accuracy Test Assessments (RATA) on a CEMS, the permittee shall notify the Compliance Authority of the schedule (letter, email, fax, or phone call). A summary of the RATA reports shall be provided upon written request of the Compliance Authority and in the SIP Excess Emissions Report. [Rules 62-4.070(3) and 62-212.400 (BACT), F.A.C.; and PSD-FL-363/1050233-018-AC, Specific Condition 28.]

NSPS 40 CFR 60 Requirements

- G.30. NSPS Requirements - Subpart A.** This emissions unit shall comply with all applicable requirements of 40 CFR 60, Subpart A, General Provisions, including:
- 40 CFR 60.7, Notification and Recordkeeping
 - 40 CFR 60.8, Performance Tests
 - 40 CFR 60.11, Compliance with Standards and Maintenance Requirements
 - 40 CFR 60.12, Circumvention
 - 40 CFR 60.13, Monitoring Requirements
 - 40 CFR 60.19, General Notification and Reporting Requirements,
- which have been adopted by reference in Rule 62-204.800(8)(d), F.A.C., except that the Secretary is not the Administrator for purposes of 40 CFR 60.4, 40 CFR 60.8(b)(2) and (3), 40 CFR 60.11(e)(7) and (8), 40 CFR 60.13(g), (i) and (j)(2), and 40 CFR 60.16. These emissions units shall comply with Appendix 40 CFR 60 Subpart A included with this permit. [Rule 62-204.800(8)(d), F.A.C.]
- G.31. NSPS Requirements - Subpart GG.** Except as otherwise provided in this permit, the combustion turbine shall comply with all applicable provisions of 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines, adopted by reference in Rule 62-204.800(8)(b), F.A.C., except that the Secretary is not the Administrator for purposes of 40 CFR 60.334(b)(2) and 40 CFR 60.335(f)(1). The Subpart GG requirement to correct test data to ISO conditions applies, but such correction is not required to demonstrate compliance with the non-NSPS permit standard(s). These emissions units shall comply with **Appendix 40 CFR 60 Subpart GG** attached to this permit. [Rule 62-204.800(8)(b)39., F.A.C.]

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Subsection H. Common Conditions Emissions Units -001, -004, -005 & -006

The specific conditions in this section apply to the following emissions unit(s):

E.U. ID No.	Brief Description
-001	260 MW Combined Cycle Gas Turbine No. 1
-004	Sulfuric Acid Plant
-005	Solid Fuel Handling System
-006	Solid Fuel Gasification System

H.1. Source Obligation - Petcoke Increase Project.

- a. At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by virtue of a relaxation in any enforceable limitation which was established after August 7, 1980, on the capacity of the source or modification otherwise to emit a pollutant, such as a restriction on hours of operation, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification.
- b. At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by exceeding its projected actual emissions, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification.

[Rule 62-212.400(12), F.A.C.; and, Permit No. 1050233-021-AC/PSD-FL-194H, specific condition 2.4.]

H.2. PSD Applicability Monitoring and Reporting Requirements - Petcoke Increase Project.

- a. The permittee shall monitor the emissions of SO₂ and SAM; and, using the most reliable information available, calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of 5 years following resumption of regular operations after the change, beginning with the first full calendar year following the year in which the change occurred (the petcoke blend ratio was increased to 85% in the Fall of 2008, therefore, the 5-year period is effective for calendar year (CY) 2009 emissions through CY 2013 emissions). Emissions shall be computed in accordance with Rule 62-210.370, F.A.C.
- b. The permittee shall report to the Department within 60 days after the end of each year during which records must be generated under subparagraph 62-212.300(1)(e)1., F.A.C., setting out the unit's annual emissions during the calendar year that preceded submission of the report. The report shall contain the following:
 1. The name, address and telephone number of the owner or operator of the major stationary source;
 2. The annual emissions as calculated pursuant to subparagraph 62-212.300(1)(e)1., F.A.C.;
 3. If the emissions differ from the preconstruction projection, an explanation as to why there is a difference; and,
 4. Any other information that the owner or operator wishes to include in the report.
- c. The information required to be documented and maintained pursuant to subparagraphs 62-212.300(1)(e)1. and 2., F.A.C., shall be submitted to the Department, which shall make it available for review to the general public.

[Rule 62-212.300(1)(e), F.A.C.; and, Permit No. 1050233-021-AC/PSD-FL-194H, specific condition 3.12.]

SECTION IV. ACID RAIN PART.
Federal Acid Rain Provisions

Operated by: Tampa Electric Company
ORIS Code: 7242

Subsection A. This Subsection addresses Acid Rain, Phase II SO₂.

The emissions units listed below are regulated under Phase II SO₂ of the federal Acid Rain Program.

E.U. ID No.	Brief Description
-001	260 MW Combined Cycle Gas Turbine No. 1
-009	Nominal 165 MW Simple Cycle Turbine No. 2
-010	Nominal 165 MW Simple Cycle Turbine No. 3
-011	Nominal 165 MW Simple Cycle Turbine No. 4
-012	Nominal 165 MW Simple Cycle Turbine No. 5

A.1. The Phase II SO₂ Acid Rain Part application submitted for this facility, as approved by the Department, is a part of this permit. The owners and operators of these Phase II acid rain units must comply with the standard requirements and special provisions set forth in the application(s) listed below:

- a. DEP Form No. 62-210.900(1)(a) - Form, Effective: 3/16/08, received on May 20, 2009, and signed by the Designated Representative on May 20, 2009, which is included at the end of this subsection.
[Chapter 62-213, F.A.C.; and, Rule 62-214.320, F.A.C.]

A.2. Sulfur dioxide (SO₂) Emission Allowances. SO₂ emissions from sources subject to the Federal Acid Rain Program (Title IV) shall not exceed any allowances that the source lawfully holds under the Federal Acid Rain Program. Allowances shall not be used to demonstrate compliance with a non-Title IV applicable requirement of the Act.

- a. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the Federal Acid Rain Program, provided that such increases do not require a permit revision pursuant to Rule 62-213.400(3), F.A.C.
- b. No limit shall be placed on the number of allowances held by the source under the Federal Acid Rain Program.
- c. Allowances shall be accounted for under the Federal Acid Rain Program.
[Rule 62-213.440(1)(c)1., 2. & 3., F.A.C.]

A.3. Comments, notes, and justifications: None.

SECTION IV. ACID RAIN PART.
Federal Acid Rain Provisions

Acid Rain Part Application

For more information, see instructions and refer to 40 CFR 72.30, 72.31, and 74; and Chapter 62-214, F.A.C.

This submission is: ☐ New ☐ Revised ☒ Renewal

STEP 1

Identify the source by plant name, state, and ORIS or plant code.

Polk	Florida	7242
Plant name	State	ORIS/Plant Code

STEP 2

Enter the unit ID# for every Acid Rain unit at the Acid Rain source in column "a."

If unit a SO₂ Opt-in unit, enter "yes" in column "b".

For new units or SO₂ Opt-in units, enter the requested information in columns "d" and "e."

a	b	c	d	e
Unit ID#	SO ₂ Opt-in Unit? (Yes or No)	Unit will hold allowances in accordance with 40 CFR 72.9(c)(1)	New or SO ₂ Opt-in Units Commence Operation Date	New or SO ₂ Opt-In Units Monitor Certification Deadline
**1	No	Yes	N/A	N/A
**2	No	Yes	N/A	N/A
**3	No	Yes	N/A	N/A
**4	No	Yes	N/A	N/A
**5	No	Yes	N/A	N/A
		Yes		
		Yes		
		Yes		
		Yes		
		Yes		
		Yes		
		Yes		

SECTION IV. ACID RAIN PART.
Federal Acid Rain Provisions

Polk

Name (from STEP 1)

STEP 3

**Read the
standard
requirements.**

Acid Rain Part Requirements.

- (1) The designated representative of each Acid Rain source and each Acid Rain unit at the source shall:
 - (i) Submit a complete Acid Rain Part application (including a compliance plan) under 40 CFR Part 72 and Rules 62-214.320 and 330, F.A.C., in accordance with the deadlines specified in Rule 62-214.320, F.A.C.; and
 - (ii) Submit in a timely manner any supplemental information that the DEP determines is necessary in order to review an Acid Rain Part application and issue or deny an Acid Rain Part.
- (2) The owners and operators of each Acid Rain source and each Acid Rain unit at the source shall:
 - (i) Operate the unit in compliance with a complete Acid Rain Part application or a superseding Acid Rain Part issued by the DEP; and
 - (ii) Have an Acid Rain Part.

Monitoring Requirements.

- (1) The owners and operators and, to the extent applicable, designated representative of each Acid Rain source and each Acid Rain unit at the source shall comply with the monitoring requirements as provided in 40 CFR Part 75, and Rule 62-214.420, F.A.C.
- (2) The emissions measurements recorded and reported in accordance with 40 CFR Part 75 shall be used to determine compliance by the unit with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.
- (3) The requirements of 40 CFR Part 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Act and other provisions of the operating permit for the source.
- (4) For applications including a SO₂ Opt-In unit, a monitoring plan for each SO₂ Opt-In unit must be submitted with this application pursuant to 40 CFR 74.14(a). For renewal applications for SO₂ Opt-In units include an updated monitoring plan if applicable under 40 CFR 75.63(b).

Sulfur Dioxide Requirements.

- (1) The owners and operators of each source and each Acid Rain unit at the source shall:
 - (i) Hold allowances, as of the allowance transfer deadline, in the unit's compliance subaccount (after deductions under 40 CFR 73.34(c)), or in the compliance subaccount of another Acid Rain unit at the same source to the extent provided in 40 CFR 73.35(b)(3), not less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit; and
 - (ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.
- (2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act.
- (3) An Acid Rain unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:
 - (i) Starting January 1, 2000, an Acid Rain unit under 40 CFR 72.8(a)(2); or
 - (ii) Starting on the later of January 1, 2000, or the deadline for monitor certification under 40 CFR Part 75, an Acid Rain unit under 40 CFR 72.8(a)(3).
- (4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.
- (5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.
- (6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain Part application, the Acid Rain Part, or an exemption under 40 CFR 72.7 or 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
- (7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

Nitrogen Oxides Requirements. The owners and operators of the source and each Acid Rain unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides.

Excess Emissions Requirements.

- (1) The designated representative of an Acid Rain unit that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR Part 77.
- (2) The owners and operators of an Acid Rain unit that has excess emissions in any calendar year shall:
 - (i) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR Part 77; and
 - (ii) Comply with the terms of an approved offset plan, as required by 40 CFR Part 77.

Recordkeeping and Reporting Requirements.

- (1) Unless otherwise provided, the owners and operators of the source and each Acid Rain unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the EPA or the DEP:
 - (i) The certificate of representation for the designated representative for the source and each Acid Rain unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with Rule 62-214.350, F.A.C.; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative;
 - (ii) All emissions monitoring information, in accordance with 40 CFR Part 75, provided that to the extent that 40 CFR Part 75 provides for a 3-year period for recordkeeping, the 3-year period shall apply;
 - (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and

SECTION IV. ACID RAIN PART.
Federal Acid Rain Provisions

Polk

Plant Name (from STEP 1)

STEP 3,
Continued.

Recordkeeping and Reporting Requirements (cont)

(iv) Copies of all documents used to complete an Acid Rain Part application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.

(2) The designated representative of an Acid Rain source and each Acid Rain unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR Part 72, Subpart I, and 40 CFR Part 75.

Liability.

(1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain Part application, an Acid Rain Part, or an exemption under 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act.

(2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Act and 18 U.S.C. 1001.

(3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.

(4) Each Acid Rain source and each Acid Rain unit shall meet the requirements of the Acid Rain Program.

(5) Any provision of the Acid Rain Program that applies to an Acid Rain source (including a provision applicable to the designated representative of an Acid Rain source) shall also apply to the owners and operators of such source and of the Acid Rain units at the source.

(6) Any provision of the Acid Rain Program that applies to an Acid Rain unit (including a provision applicable to the designated representative of an Acid Rain unit) shall also apply to the owners and operators of such unit. Except as provided under 40 CFR 72.44 (Phase II repowering extension plans) and 40 CFR 75.11 (NO_x averaging plans), and except with regard to the requirements applicable to units with a common stack under 40 CFR Part 75 (including 40 CFR 75.16, 75.17, and 75.18), the owners and operators and the designated representative of one Acid Rain unit shall not be liable for any violation by any other Acid Rain unit of which they are not owners or operators or the designated representative and that is located at a source of which they are not owners or operators or the designated representative.

(7) Each violation of a provision of 40 CFR Parts 72, 73, 74, 75, 76, 77, and 78 by an Acid Rain source or Acid Rain unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

Effect on Other Authorities.

No provision of the Acid Rain Program, an Acid Rain Part application, an Acid Rain Part, or an exemption under 40 CFR 72.7 or 72.8 shall be construed as:

(1) Except as expressly provided in title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an Acid Rain source or Acid Rain unit from compliance with any other provision of the Act, including the provisions of title I of the Act relating to applicable National Ambient Air Quality Standards or State Implementation Plans;

(2) Limiting the number of allowances a unit can hold; provided, that the number of allowances held by the unit shall not affect the source's obligation to comply with any other provisions of the Act;

(3) Requiring a change of any kind in any state law regulating electric utility rates and charges, affecting any state law regarding such state regulation, or limiting such state regulation, including any prudency review requirements under such state law;

(4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,

(5) Interfering with or impairing any program for competitive bidding for power supply in a state in which such program is established.

STEP 4

For SO₂ Opt-in units only.

In column "f" enter the unit ID# for every SO₂ Opt-in unit identified in column "a" of STEP 2.

For column "g" describe the combustion unit and attach information and diagrams on the combustion unit's configuration.

In column "h" enter the hours.

f	g	h (not required for renewal application)
Unit ID#	Description of the combustion unit	Number of hours unit operated in the six months preceding Initial application

SECTION IV. ACID RAIN PART.
Federal Acid Rain Provisions

Polk

Plant Name (from STEP 1)

STEP 5

For SO₂ Opt-in units only.
(Not required for SO₂ Opt-in renewal applications.)

In column "i" enter the unit ID# for every SO₂ Opt-in unit identified in column "a" (and in column "f").

For columns "j" through "n," enter the information required under 40 CFR 74.20-74.25 and attach all supporting documentation required by 40 CFR 74.20-74.25.

i	j	k	l	m	n
Unit ID#	Baseline or Alternative Baseline under 40 CFR 74.20 (mmBtu)	Actual SO ₂ Emissions Rate under 40 CFR 74.22 (lbs/mmBtu)	Allowable 1985 SO ₂ Emissions Rate under 40 CFR 74.23 (lbs/mmBtu)	Current Allowable SO ₂ Emissions Rate under 40 CFR 74.24 (lbs/mmBtu)	Current Promulgated SO ₂ Emissions Rate under 40 CFR 74.25 (lbs/mmBtu)

STEP 6

For SO₂ Opt-in units only.

Attach additional requirements, certify and sign.

- A. If the combustion source seeks to qualify for a transfer of allowances from the replacement of thermal energy, a thermal energy plan as provided in 40 CFR 74.47 for combustion sources must be attached.
 B. A statement whether the combustion unit was previously an affected unit under 40 CFR 74.
 C. A statement that the combustion unit is not an affected unit under 40 CFR 72.6 and does not have an exemption under 40 CFR 72.7, 72.8, or 72.14.
 D. Attach a complete compliance plan for SO₂ under 40 CFR 72.40.
 E. The designated representative of the combustion unit shall submit a monitoring plan in accordance with 40 CFR 74.61. For renewal application, submit an updated monitoring plan if applicable under 40 CFR 75.53(b).
 F. The following statement must be signed by the designated representative or alternate designated representative of the combustion source: "I certify that the data submitted under 40 CFR Part 74, Subpart C, reflects actual operations of the combustion source and has not been adjusted in any way."

Signature	Date
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STEP 7

Read the certification statement; provide name, title, owner company name, phone, and e-mail address; sign, and date.

Certification (for designated representative or alternate designated representative only)	
I am authorized to make this submission on behalf of the owners and operators of the Acid Rain source or Acid Rain units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.	
Byron T. Burrows Name	Manager - Air Programs, EHS Title
Tampa Electric Company Owner Company Name	
(813) 228-4740 Phone	btburrows@tecoenergy.com E-mail address
Signature 	Date 5/20/09

SECTION V. CAIR PART.
CLEAN AIR INTERSTATE RULE PROVISIONS

Clean Air Interstate Rule (CAIR).

Operated by: Tampa Electric Company

Plant Name: Polk Power Station

ORIS Code: 7242

Subsection A. This Subsection addresses CAIR.

The emissions units below are regulated under the Clean Air Interstate Rule.

E.U. ID No.	EPA Unit ID#	Brief Description
-001	**1	260 MW Combined Cycle Gas Turbine No. 1
-009	**2	Nominal 165 MW Simple Cycle Turbine No. 2
-010	**3	Nominal 165 MW Simple Cycle Turbine No. 3
-011	**4	Nominal 165 MW Simple Cycle Turbine No. 4
-012	**5	Nominal 165 MW Simple Cycle Turbine No. 5

1. Clean Air Interstate Rule Application. The Clean Air Interstate Rule Part Form submitted for this facility is a part of this permit. The owners and operators of these CAIR units as identified in this form must comply with the standard requirements and special provisions set forth in the CAIR Part Form (DEP Form No. 62-210.900(1)(b) - Form, Effective: 3/16/08), which is attached at the end of this subsection. [Chapter 62-213, F.A.C. and Rule 62-210.200, F.A.C.]
2. Comments, notes, and justifications: None.

SECTION V. CAIR PART.
CLEAN AIR INTERSTATE RULE PROVISIONS

STEP 3

**Read the
standard
requirements.**

Polk
Plant Name (from STEP 1)

CAIR NO_x ANNUAL TRADING PROGRAM

CAIR Part Requirements.

- (1) The CAIR designated representative of each CAIR NO_x source and each CAIR NO_x unit at the source shall:
 - (i) Submit to the DEP a complete and certified CAIR Part form under 40 CFR 96.122 and Rule 62-286.470, F.A.C., in accordance with the deadlines specified in Rule 62-213.420, F.A.C.; and
 - (ii) [Reserved];
- (2) The owners and operators of each CAIR NO_x source and each CAIR NO_x unit at the source shall have a CAIR Part included in the Title V operating permit issued by the DEP under 40 CFR Part 96, Subpart CC, and operate the source and the unit in compliance with such CAIR Part.

Monitoring, Reporting, and Recordkeeping Requirements.

- (1) The owners and operators, and the CAIR designated representative, of each CAIR NO_x source and each CAIR NO_x unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR Part 96, Subpart HH, and Rule 62-286.470, F.A.C.
- (2) The emissions measurements recorded and reported in accordance with 40 CFR Part 96, Subpart HH, shall be used to determine compliance by each CAIR NO_x source with the following CAIR NO_x Emissions Requirements.

NO_x Emission Requirements.

- (1) As of the allowance transfer deadline for a control period, the owners and operators of each CAIR NO_x source and each CAIR NO_x unit at the source shall hold, in the source's compliance account, CAIR NO_x allowances available for compliance deductions for the control period under 40 CFR 96.154(a) in an amount not less than the tons of total NO_x emissions for the control period from all CAIR NO_x units at the source, as determined in accordance with 40 CFR Part 96, Subpart HH.
- (2) A CAIR NO_x unit shall be subject to the requirements under paragraph (1) of the NO_x Requirements starting on the later of January 1, 2009, or the deadline for meeting the unit's monitor certification requirements under 40 CFR 96.170(b)(1) or (2) and for each control period thereafter.
- (3) A CAIR NO_x allowance shall not be deducted, for compliance with the requirements under paragraph (1) of the NO_x Requirements, for a control period in a calendar year before the year for which the CAIR NO_x allowance was allocated.
- (4) CAIR NO_x allowances shall be held in, deducted from, or transferred into or among CAIR NO_x Allowance Tracking System accounts in accordance with 40 CFR Part 96, Subparts FF and GG.
- (5) A CAIR NO_x allowance is a limited authorization to emit one ton of NO_x in accordance with the CAIR NO_x Annual Trading Program. No provision of the CAIR NO_x Annual Trading Program, the CAIR Part, or an exemption under 40 CFR 96.105 and no provision of law shall be construed to limit the authority of the state or the United States to terminate or limit such authorization.
- (6) A CAIR NO_x allowance does not constitute a property right.
- (7) Upon recordation by the Administrator under 40 CFR Part 96, Subpart EE, FF, or GG, every allocation, transfer, or deduction of a CAIR NO_x allowance to or from a CAIR NO_x unit's compliance account is incorporated automatically in any CAIR Part of the source that includes the CAIR NO_x unit.

Excess Emissions Requirements.

If a CAIR NO_x source emits NO_x during any control period in excess of the CAIR NO_x emissions limitation, then:

- (1) The owners and operators of the source and each CAIR NO_x unit at the source shall surrender the CAIR NO_x allowances required for deduction under 40 CFR 96.154(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable state law; and
- (2) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR Part 96, Subpart AA, the Clean Air Act, and applicable state law.

Recordkeeping and Reporting Requirements.

- (1) Unless otherwise provided, the owners and operators of the CAIR NO_x source and each CAIR NO_x unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the DEP or the Administrator.
 - (i) The certificate of representation under 40 CFR 96.113 for the CAIR designated representative for the source and each CAIR NO_x unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation under 40 CFR 96.113 changing the CAIR designated representative.
 - (ii) All emissions monitoring information, in accordance with 40 CFR Part 96, Subpart HH, of this part, provided that to the extent that 40 CFR Part 96, Subpart HH, provides for a 3-year period for recordkeeping, the 3-year period shall apply.
 - (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CAIR NO_x Annual Trading Program.
 - (iv) Copies of all documents used to complete a CAIR Part form and any other submission under the CAIR NO_x Annual Trading Program or to demonstrate compliance with the requirements of the CAIR NO_x Annual Trading Program.
- (2) The CAIR designated representative of a CAIR NO_x source and each CAIR NO_x unit at the source shall submit the reports required under the CAIR NO_x Annual Trading Program, including those under 40 CFR Part 96, Subpart HH.

SECTION V. CAIR PART.
CLEAN AIR INTERSTATE RULE PROVISIONS

Polk
Plant Name (from STEP 1)

STEP 3,
Continued

Liability.

- (1) Each CAIR NO_x source and each CAIR NO_x unit shall meet the requirements of the CAIR NO_x Annual Trading Program.
- (2) Any provision of the CAIR NO_x Annual Trading Program that applies to a CAIR NO_x source or the CAIR designated representative of a CAIR NO_x source shall also apply to the owners and operators of such source and of the CAIR NO_x units at the source.
- (3) Any provision of the CAIR NO_x Annual Trading Program that applies to a CAIR NO_x unit or the CAIR designated representative of a CAIR NO_x unit shall also apply to the owners and operators of such unit.

Effect on Other Authorities.

No provision of the CAIR NO_x Annual Trading Program, a CAIR Part, or an exemption under 40 CFR 96.105 shall be construed as exempting or excluding the owners and operators, and the CAIR designated representative, of a CAIR NO_x source or CAIR NO_x unit from compliance with any other provision of the applicable, approved State Implementation Plan, a federally enforceable permit, or the Clean Air Act.

CAIR SO₂ TRADING PROGRAM

CAIR Part Requirements.

- (1) The CAIR designated representative of each CAIR SO₂ source and each CAIR SO₂ unit at the source shall:
 - (i) Submit to the DEP a complete and certified CAIR Part form under 40 CFR 96.222 and Rule 62-296.470, F.A.C., in accordance with the deadlines specified in Rule 62-213.420, F.A.C.; and
 - (ii) [Reserved].
- (2) The owners and operators of each CAIR SO₂ source and each CAIR SO₂ unit at the source shall have a CAIR Part included in the Title V operating permit issued by the DEP under 40 CFR Part 96, Subpart CCC, for the source and operate the source and each CAIR unit in compliance with such CAIR Part.

Monitoring, Reporting, and Recordkeeping Requirements.

- (1) The owners and operators, and the CAIR designated representative, of each CAIR SO₂ source and each SO₂ CAIR unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR Part 96, Subpart HHH, and Rule 62-296.470, F.A.C.
- (2) The emissions measurements recorded and reported in accordance with 40 CFR Part 96, Subpart HHH, shall be used to determine compliance by each CAIR SO₂ source with the following CAIR SO₂ Emission Requirements.

SO₂ Emission Requirements.

- (1) As of the allowance transfer deadline for a control period, the owners and operators of each CAIR SO₂ source and each CAIR SO₂ unit at the source shall hold, in the source's compliance account, a tonnage equivalent in CAIR SO₂ allowances available for compliance deductions for the control period, as determined in accordance with 40 CFR 96.254(a) and (b), not less than the tons of total sulfur dioxide emissions for the control period from all CAIR SO₂ units at the source, as determined in accordance with 40 CFR Part 96, Subpart HHH.
- (2) A CAIR SO₂ unit shall be subject to the requirements under paragraph (1) of the Sulfur Dioxide Emission Requirements starting on the later of January 1, 2010 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 96.270(b)(1) or (2) and for each control period thereafter.
- (3) A CAIR SO₂ allowance shall not be deducted, for compliance with the requirements under paragraph (1) of the SO₂ Emission Requirements, for a control period in a calendar year before the year for which the CAIR SO₂ allowance was allocated.
- (4) CAIR SO₂ allowances shall be held in, deducted from, or transferred into or among CAIR SO₂ Allowance Tracking System accounts in accordance with 40 CFR Part 96, Subparts FFF and GGG.
- (5) A CAIR SO₂ allowance is a limited authorization to emit sulfur dioxide in accordance with the CAIR SO₂ Trading Program. No provision of the CAIR SO₂ Trading Program, the CAIR Part, or an exemption under 40 CFR 96.205 and no provision of law shall be construed to limit the authority of the state or the United States to terminate or limit such authorization.
- (6) A CAIR SO₂ allowance does not constitute a property right.
- (7) Upon recordation by the Administrator under 40 CFR Part 96, Subpart FFF or GGG, every allocation, transfer, or deduction of a CAIR SO₂ allowance to or from a CAIR SO₂ unit's compliance account is incorporated automatically in any CAIR Part of the source that includes the CAIR SO₂ unit.

Excess Emissions Requirements.

If a CAIR SO₂ source emits SO₂ during any control period in excess of the CAIR SO₂ emissions limitation, then:

- (1) The owners and operators of the source and each CAIR SO₂ unit at the source shall surrender the CAIR SO₂ allowances required for deduction under 40 CFR 96.254(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable state law; and
- (2) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR Part 96, Subpart AAA, the Clean Air Act, and applicable state law.

SECTION V. CAIR PART.
CLEAN AIR INTERSTATE RULE PROVISIONS

Polk

Plant Name (from STEP 1)

STEP 3,
Continued

Recordkeeping and Reporting Requirements.

(1) Unless otherwise provided, the owners and operators of the CAIR SO₂ source and each CAIR SO₂ unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the Department or the Administrator.

(i) The certificate of representation under 40 CFR 96.213 for the CAIR designated representative for the source and each CAIR SO₂ unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation under 40 CFR 96.213 changing the CAIR designated representative.

(ii) All emissions monitoring information, in accordance with 40 CFR Part 96, Subpart HHH, of this part, provided that to the extent that 40 CFR Part 96, Subpart HHH, provides for a 3-year period for recordkeeping, the 3-year period shall apply.

(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CAIR SO₂ Trading Program.

(iv) Copies of all documents used to complete a CAIR Part form and any other submission under the CAIR SO₂ Trading Program or to demonstrate compliance with the requirements of the CAIR SO₂ Trading Program.

(2) The CAIR designated representative of a CAIR SO₂ source and each CAIR SO₂ unit at the source shall submit the reports required under the CAIR SO₂ Trading Program, including those under 40 CFR Part 96, Subpart HHH.

Liability.

(1) Each CAIR SO₂ source and each CAIR SO₂ unit shall meet the requirements of the CAIR SO₂ Trading Program.

(2) Any provision of the CAIR SO₂ Trading Program that applies to a CAIR SO₂ source or the CAIR designated representative of a CAIR SO₂ source shall also apply to the owners and operators of such source and of the CAIR SO₂ units at the source.

(3) Any provision of the CAIR SO₂ Trading Program that applies to a CAIR SO₂ unit or the CAIR designated representative of a CAIR SO₂ unit shall also apply to the owners and operators of such unit.

Effect on Other Authorities.

No provision of the CAIR SO₂ Trading Program, a CAIR Part, or an exemption under 40 CFR 96.205 shall be construed as exempting or excluding the owners and operators, and the CAIR designated representative, of a CAIR SO₂ source or CAIR SO₂ unit from compliance with any other provision of the applicable, approved State Implementation Plan, a federally enforceable permit, or the Clean Air Act.

CAIR NO_x OZONE SEASON TRADING PROGRAM

CAIR Part Requirements.

(1) The CAIR designated representative of each CAIR NO_x Ozone Season source and each CAIR NO_x Ozone Season unit at the source shall:

(i) Submit to the DEP a complete and certified CAIR Part form under 40 CFR 96.322 and Rule 82-298.470, F.A.C., in accordance with the deadlines specified in Rule 82-213.420, F.A.C.; and

(ii) [Reserved];

(2) The owners and operators of each CAIR NO_x Ozone Season source required to have a Title V operating permit or air construction permit, and each CAIR NO_x Ozone Season unit required to have a Title V operating permit or air construction permit at the source shall have a CAIR Part included in the Title V operating permit or air construction permit issued by the DEP under 40 CFR Part 96, Subpart CCCC, for the source and operate the source and the unit in compliance with such CAIR Part.

Monitoring, Reporting, and Recordkeeping Requirements.

(1) The owners and operators, and the CAIR designated representative, of each CAIR NO_x Ozone Season source and each CAIR NO_x Ozone Season unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR Part 96, Subpart HHHH, and Rule 82-298.470, F.A.C.

(2) The emissions measurements recorded and reported in accordance with 40 CFR Part 96, Subpart HHHH, shall be used to determine compliance by each CAIR NO_x Ozone Season source with the following CAIR NO_x Ozone Season Emissions Requirements.

NO_x Ozone Season Emission Requirements.

(1) As of the allowance transfer deadline for a control period, the owners and operators of each CAIR NO_x Ozone Season source and each CAIR NO_x Ozone Season unit at the source shall hold, in the source's compliance account, CAIR NO_x Ozone Season allowances available for compliance deductions for the control period under 40 CFR 96.354(a) in an amount not less than the tons of total NO_x emissions for the control period from all CAIR NO_x Ozone Season units at the source, as determined in accordance with 40 CFR Part 96, Subpart HHHH.

(2) A CAIR NO_x Ozone Season unit shall be subject to the requirements under paragraph (1) of the NO_x Ozone Season Emission Requirements starting on the later of May 1, 2009 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 96.370(b)(1), (2), or (3) and for each control period thereafter.

(3) A CAIR NO_x Ozone Season allowance shall not be deducted, for compliance with the requirements under paragraph (1) of the NO_x Ozone Season Emission Requirements, for a control period in a calendar year before the year for which the CAIR NO_x Ozone Season allowance was allocated.

(4) CAIR NO_x Ozone Season allowances shall be held in, deducted from, or transferred into or among CAIR NO_x Ozone Season Allowance Tracking System accounts in accordance with 40 CFR Part 96, Subparts FFFF and GGGG.

(5) A CAIR NO_x Ozone Season allowance is a limited authorization to emit one ton of NO_x in accordance with the CAIR NO_x Ozone Season Trading Program. No provision of the CAIR NO_x Ozone Season Trading Program, the CAIR Part, or an exemption under 40 CFR 96.305 and no provision of law shall be construed to limit the authority of the state or the United States to terminate or limit such authorization.

(6) A CAIR NO_x Ozone Season allowance does not constitute a property right.

(7) Upon recordation by the Administrator under 40 CFR Part 96, Subpart EEEE, FFFF or GGGG, every allocation, transfer, or deduction of a CAIR NO_x Ozone Season allowance to or from a CAIR NO_x Ozone Season unit's compliance account is incorporated automatically in any CAIR Part of the source that includes the CAIR NO_x Ozone Season unit.

SECTION V. CAIR PART.
CLEAN AIR INTERSTATE RULE PROVISIONS

Polk

Plant Name (from STEP 1)

STEP 3,
Continued

Excess Emissions Requirements.

If a CAIR NO_x Ozone Season source emits NO_x during any control period in excess of the CAIR NO_x Ozone Season emissions limitation, then:

(1) The owners and operators of the source and each CAIR NO_x Ozone Season unit at the source shall surrender the CAIR NO_x Ozone Season allowances required for deduction under 40 CFR 96.354(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable state law; and

(2) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR Part 96, Subpart AAAA, the Clean Air Act, and applicable state law.

Recordkeeping and Reporting Requirements.

(1) Unless otherwise provided, the owners and operators of the CAIR NO_x Ozone Season source and each CAIR NO_x Ozone Season unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the DEP or the Administrator.

(i) The certificate of representation under 40 CFR 96.313 for the CAIR designated representative for the source and each CAIR NO_x Ozone Season unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation under 40 CFR 96.113 changing the CAIR designated representative.

(ii) All emissions monitoring information, in accordance with 40 CFR Part 96, Subpart HHHH, of this part, provided that to the extent that 40 CFR Part 96, Subpart HHHH, provides for a 3-year period for recordkeeping, the 3-year period shall apply.

(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CAIR NO_x Ozone Season Trading Program.

(iv) Copies of all documents used to complete a CAIR Part form and any other submission under the CAIR NO_x Ozone Season Trading Program or to demonstrate compliance with the requirements of the CAIR NO_x Ozone Season Trading Program.

(2) The CAIR designated representative of a CAIR NO_x Ozone Season source and each CAIR NO_x Ozone Season unit at the source shall submit the reports required under the CAIR NO_x Ozone Season Trading Program, including those under 40 CFR Part 96, Subpart HHHH.

Liability.

(1) Each CAIR NO_x Ozone Season source and each CAIR NO_x Ozone Season unit shall meet the requirements of the CAIR NO_x Ozone Season Trading Program.

(2) Any provision of the CAIR NO_x Ozone Season Trading Program that applies to a CAIR NO_x Ozone Season source or the CAIR designated representative of a CAIR NO_x Ozone Season source shall also apply to the owners and operators of such source and of the CAIR NO_x Ozone Season units at the source.

(3) Any provision of the CAIR NO_x Ozone Season Trading Program that applies to a CAIR NO_x Ozone Season unit or the CAIR designated representative of a CAIR NO_x Ozone Season unit shall also apply to the owners and operators of such unit.

Effect on Other Authorities.

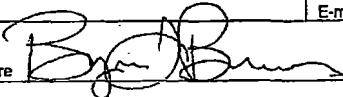
No provision of the CAIR NO_x Ozone Season Trading Program, a CAIR Part, or an exemption under 40 CFR 96.305 shall be construed as exempting or excluding the owners and operators, and the CAIR designated representative, of a CAIR NO_x Ozone Season source or CAIR NO_x Ozone Season unit from compliance with any other provision of the applicable, approved State Implementation Plan, a federally enforceable permit, or the Clean Air Act.

STEP 4

Certification (for designated representative or alternate designated representative only)

Read the
certification
statement; provide
name, title, owner
company name,
phone, and e-mail
address; sign, and
date.

I am authorized to make this submission on behalf of the owners and operators of the CAIR source or CAIR units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Byron T. Burrows Name		Manager - Air Programs, EHS Title	
Tampa Electric Company Owner Company Name			
(813) 228-4740 Phone		btburrows@tecoenergy.com E-mail address	
Signature 		Date 5/20/09	

SECTION VI. APPENDICES.

The Following Appendices Are Enforceable Parts of This Permit:

Appendix A, Glossary.

Appendix BOP, Best Operational Practices for Start up and Shutdown.

Appendix 40 CFR 60, Subpart A, General Provisions.

Appendix 40 CFR 60, Subpart Db, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units.

Appendix 40 CFR 60, Subpart Y, Standards of Performance for Coal Preparation Plants.

Appendix 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines.

Appendix I, List of Insignificant Emissions Units and/or Activities.

Appendix RR, Facility-wide Reporting Requirements.

Appendix TR, Facility-wide Testing Requirements.

Appendix TV, Title V General Conditions.

Appendix U, List of Unregulated Emissions Units and/or Activities.

APPENDIX A

ABBREVIATIONS, ACRONYMS, CITATIONS AND IDENTIFICATION NUMBERS

Abbreviations and Acronyms:

° F: degrees Fahrenheit

acfm: actual cubic feet per minute

AOR: Annual Operating Report

ARMS: Air Resource Management System
(Department's database)

BACT: best available control technology

Btu: British thermal units

CAM: compliance assurance monitoring

CEMS: continuous emissions monitoring system

cfm: cubic feet per minute

CFR: Code of Federal Regulations

CO: carbon monoxide

COMS: continuous opacity monitoring system

DARM: Division of Air Resources Management

DCA: Department of Community Affairs

DEP: Department of Environmental Protection

Department: Department of Environmental
Protection

dscfm: dry standard cubic feet per minute

EPA: Environmental Protection Agency

ESP: electrostatic precipitator (control system for
reducing particulate matter)

EU: emissions unit

F.A.C.: Florida Administrative Code

F.D.: forced draft

F.S.: Florida Statutes

FGR: flue gas recirculation

Fl: fluoride

ft²: square feet

ft³: cubic feet

gpm: gallons per minute

gr: grains

HAP: hazardous air pollutant

Hg: mercury

I.D.: induced draft

ID: identification

ISO: International Standards Organization (refers to
those conditions at 288 Kelvin, 60% relative
humidity and 101.3 kilopascals pressure.)

kPa: kilopascals

LAT: Latitude

lb: pound

lbs/hr: pounds per hour

LONG: Longitude

MACT: maximum achievable technology

mm: millimeter

MMBtu: million British thermal units

MSDS: material safety data sheets

MW: megawatt

NESHAP: National Emissions Standards for
Hazardous Air Pollutants

NO_x: nitrogen oxides

NSPS: New Source Performance Standards

O&M: operation and maintenance

O₂: oxygen

ORIS: Office of Regulatory Information Systems

OS: Organic Solvent

Pb: lead

PM: particulate matter

PM₁₀: particulate matter with a mean aerodynamic
diameter of 10 microns or less

PSD: prevention of significant deterioration

psi: pounds per square inch

PTE: potential to emit

RACT: reasonably available control technology

RATA: relative accuracy test audit

RMP: Risk Management Plan

RO: Responsible Official

SAM: sulfuric acid mist

scf: standard cubic feet

scfm: standard cubic feet per minute

SIC: standard industrial classification code

APPENDIX A

ABBREVIATIONS, ACRONYMS, CITATIONS AND IDENTIFICATION NUMBERS

SNCR: selective non-catalytic reduction (control system used for reducing emissions of nitrogen oxides)

SOA: Specific Operating Agreement

SO₂: sulfur dioxide

TPH: tons per hour

TPY: tons per year

UTM: Universal Transverse Mercator coordinate system

VE: visible emissions

VOC: volatile organic compounds

x: By or times

Citations:

The following examples illustrate the methods used in this permit to abbreviate and cite the references of rules, regulations, guidance memorandums, permit numbers and ID numbers.

Code of Federal Regulations:

Example: [40 CFR 60.334]

Where:	40	refers to	Title 40
	CFR	refers to	Code of Federal Regulations
	60	refers to	Part 60
	60.334	refers to	Regulation 60.334

Florida Administrative Code (F.A.C.) Rules:

Example: [Rule 62-213.205, F.A.C.]

Where:	62	refers to	Title 62
	62-213	refers to	Chapter 62-213
	62-213.205	refers to	Rule 62-213.205, F.A.C.

Identification Numbers:

Facility Identification (ID) Number:

Example: Facility ID No.: 1050221

Where:

105	=	3-digit number code identifying the facility is located in Polk County
0221	=	4-digit number assigned by state database.

Permit Numbers:

*Example: 1050221-002-AV, or
1050221-001-AC*

APPENDIX A

ABBREVIATIONS, ACRONYMS, CITATIONS AND IDENTIFICATION NUMBERS

Where:

AC = Air Construction Permit
AV = Air Operation Permit (Title V Source)
105 = 3-digit number code identifying the facility is located in Polk County
0221= 4-digit number assigned by permit tracking database
001 or 002= 3-digit sequential project number assigned by permit tracking database

Example: PSD-FL-185

PA95-01

AC53-208321

Where:

PSD = Prevention of Significant Deterioration Permit
PA = Power Plant Siting Act Permit
AC53 = old Air Construction Permit numbering identifying the facility is located in Polk County

Polk Power Station

Procedures for Startup & Shutdown of the Unit #1

A. Startup

1. The Gas Turbine Generator (GTG) start is initiated by an operator. The start sequence performs the following steps automatically:
 - a. A load commutating inverter raises the GTG speed to approximately 25% for a purge.
 - b. The GTG is fired on distillate fuel and speed is increased to synchronous speed.
 - c. The generator breaker closes automatically and the GTG is loaded to spinning reserve.
2. The operator increases GTG load to at least 25% on Unit #1.
3. The GTG is then operated to meet system demand.
4. For syngas operation Unit #1, load is placed near 45% and transferred to syngas.
5. The GTG is then operated to meet system demand.

B. Shutdown

1. On Unit #1, the operator decreases GTG load to near 45%; the GTG is then transferred to distillate fuel.
2. The operator decreases GTG load to spinning reserve.
3. The operator initiates a shutdown on the GTG. The shutdown sequence performs the following steps automatically:
 - a. The GTG load is reduced to 0%, and the generator breaker opens automatically.
 - b. The GTG speed is reduced by reducing fuel until minimum firing speed is obtained.
 - c. Fuel is secured to the GTG.
 - d. The GTG coasts down until it reaches turning gear speed.

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Polk Power Station

Auxiliary Boiler Start-up and Shutdown Procedures

Procedures for startup and shutdown of the Auxiliary Steam Boiler are as follows:

A. STARTUP

1. An operator initiates a start on the Auxiliary Boiler. The Auxiliary Boiler automatically purges.
2. After the purge, an operator initiates controls to ignite the diesel fuel to establish the main flame.
3. The boiler's controls automatically modulate the main flame to maintain operating steam pressure.

B. SHUTDOWN

1. An operator initiates a shutdown the Auxiliary Boiler.
2. The Auxiliary Boiler fuel supply is shut-off extinguishing the flame. Next, the auxiliary boiler is purged and shutdown.

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Polk Power Station

Procedures for Startup & Shutdown of the Unit #2 & #3

A. Startup

1. The Gas Turbine Generator (GTG) start is initiated by an operator. The start sequence performs the following steps automatically:
 - a. A load commutating inverter raises the GTG speed to approximately 25% for a purge.
 - b. The GTG is fired on natural gas or distillate fuel and speed is increased to synchronous speed.
 - c. The generator breaker closes automatically and the GTG is loaded to spinning reserve.
2. The operator increases GTG load to at least 50%.
3. The GTG is then operated to meet system demand.

B. Shutdown

1. The operator decreases GTG load to spinning reserve.
2. The operator initiates a shutdown on the GTG. The shutdown sequence performs the following steps automatically:
 - a. The GTG load is reduced to 0%, and the generator breaker opens automatically.
 - b. The GTG speed is reduced by reducing fuel until minimum firing speed is obtained.
 - c. Fuel is secured to the GTG.
 - d. The GTG coasts down until it reaches turning gear speed.

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Polk Power Station

Procedures for Startup & Shutdown of the Unit #4 & #5

A. Startup

1. The Gas Turbine Generator (GTG) start is initiated by an operator. The start sequence performs the following steps automatically:
 - a. A load commutating inverter raises the GTG speed to approximately 25% for a purge.
 - b. The GTG is fired on natural gas and speed is increased to synchronous speed.
 - c. The generator breaker closes automatically and the GTG is loaded to spinning reserve.
2. The operator increases GTG load to at least 50%.
3. The GTG is then operated to meet system demand.

B. Shutdown

1. The operator decreases GTG load to spinning reserve.
2. The operator initiates a shutdown on the GTG. The shutdown sequence performs the following steps automatically:
 - a. The GTG load is reduced to 0%, and the generator breaker opens automatically.
 - b. The GTG speed is reduced by reducing fuel until minimum firing speed is obtained.
 - c. Fuel is secured to the GTG.
 - d. The GTG coasts down until it reaches turning gear speed.

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APPENDIX 40 CFR 60 SUBPART A**GENERAL PROVISIONS**

(version dated 10/9/2008)

E.U. ID No.	Brief Description
-001	260 MW Combined Cycle Gas Turbine No. 1
-003	102 Million Btu per Hour Auxiliary Boiler
-005	Solid Fuel Handling System
-009	Nominal 165 MW Simple Cycle Turbine No. 2
-010	Nominal 165 MW Simple Cycle Turbine No. 3
-011	Nominal 165 MW Simple Cycle Turbine No. 4
-012	Nominal 165 MW Simple Cycle Turbine No. 5

Federal Regulations Adopted by Reference

In accordance with Rule 62-204.800, F.A.C., the following federal regulation in Title 40 of the Code of Federal Regulations (CFR) was adopted by reference. The original federal rule numbering has been retained.

Federal Revision Date: June 13, 2007

Rule Effective Date: October 1, 2007

Standardized Conditions Revision Date: October 9, 2008

40 CFR Part 60, Subpart A - General Provisions**Index**

40 CFR 60.1	Applicability.
40 CFR 60.2	Definitions.
40 CFR 60.3	Units and abbreviations.
40 CFR 60.4	Address.
40 CFR 60.5	Determination of construction or modification.
40 CFR 60.6	Review of plans.
40 CFR 60.7	Notification and record keeping.
40 CFR 60.8	Performance tests.
40 CFR 60.9	Availability of information.
40 CFR 60.10	State authority.
40 CFR 60.11	Compliance with standards and maintenance requirements.
40 CFR 60.12	Circumvention.
40 CFR 60.13	Monitoring requirements.
40 CFR 60.14	Modification.
40 CFR 60.15	Reconstruction.
40 CFR 60.16	Priority list.
40 CFR 60.17	Incorporations by reference.
40 CFR 60.18	General control device requirements.
40 CFR 60.19	General notification and reporting requirements.

End of Index**§ 60.1 Applicability.**

- (a) Except as provided in subparts B and C, the provisions of this part apply to the owner or operator of any stationary source which contains an affected facility, the construction or modification of which is commenced after the date of publication in this part of any standard (or, if earlier, the date of publication of any proposed standard) applicable to that facility.
- (b) Any new or revised standard of performance promulgated pursuant to section 111(b) of the Act shall apply to the owner or operator of any stationary source which contains an affected facility, the construction or modification of which is commenced after the date of publication in this part of such new or revised standard (or, if earlier, the date of publication of any proposed standard) applicable to that facility.

GENERAL PROVISIONS

(version dated 10/9/2008)

(c) In addition to complying with the provisions of this part, the owner or operator of an affected facility may be required to obtain an operating permit issued to stationary sources by an authorized State air pollution control agency or by the Administrator of the U.S. Environmental Protection Agency (EPA) pursuant to Title V of the Clean Air Act (Act) as amended November 15, 1990 (42 U.S.C. 7661). For more information about obtaining an operating permit see part 70 of this chapter.

(d) *Site-specific standard for Merck & Co., Inc.'s Stonewall Plant in Elkton, Virginia. {Not Applicable}*

§ 60.2 Definitions.

The terms used in this part are defined in the Act or in this section as follows:

Act means the Clean Air Act (42 U.S.C. 7401 *et seq.*)

Administrator means the Administrator of the Environmental Protection Agency or his authorized representative.

Affected facility means, with reference to a stationary source, any apparatus to which a standard is applicable.

Alternative method means any method of sampling and analyzing for an air pollutant which is not a reference or equivalent method but which has been demonstrated to the Administrator's satisfaction to, in specific cases, produce results adequate for his determination of compliance.

Approved permit program means a State permit program approved by the Administrator as meeting the requirements of part 70 of this chapter or a Federal permit program established in this chapter pursuant to Title V of the Act (42 U.S.C. 7661).

Capital expenditure means an expenditure for a physical or operational change to an existing facility which exceeds the product of the applicable "annual asset guideline repair allowance percentage" specified in the latest edition of Internal Revenue Service (IRS) Publication 534 and the existing facility's basis, as defined by section 1012 of the Internal Revenue Code. However, the total expenditure for a physical or operational change to an existing facility must not be reduced by any "excluded additions" as defined in IRS Publication 534, as would be done for tax purposes.

Clean coal technology demonstration project means a project using funds appropriated under the heading 'Department of Energy-Clean Coal Technology', up to a total amount of \$2,500,000,000 for commercial demonstrations of clean coal technology, or similar projects funded through appropriations for the Environmental Protection Agency.

Commenced means, with respect to the definition of *new source* in section 111(a)(2) of the Act, that an owner or operator has undertaken a continuous program of construction or modification or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of construction or modification.

Construction means fabrication, erection, or installation of an affected facility.

Continuous monitoring system means the total equipment, required under the emission monitoring sections in applicable subparts, used to sample and condition (if applicable), to analyze, and to provide a permanent record of emissions or process parameters.

Electric utility steam generating unit means any steam electric generating unit that is constructed for the purpose of supplying more than one-third of its potential electric output capacity and more than 25 MW electrical output to any utility power distribution system for sale. Any steam supplied to a steam distribution system for the purpose of providing steam to a steam-electric generator that would produce electrical energy for sale is also considered in determining the electrical energy output capacity of the affected facility.

Equivalent method means any method of sampling and analyzing for an air pollutant which has been demonstrated to the Administrator's satisfaction to have a consistent and quantitatively known relationship to the reference method, under specified conditions.

Excess Emissions and Monitoring Systems Performance Report is a report that must be submitted periodically by a source in order to provide data on its compliance with stated emission limits and operating parameters, and on the performance of its monitoring systems.

Existing facility means, with reference to a stationary source, any apparatus of the type for which a standard is promulgated in this part, and the construction or modification of which was commenced before the date of proposal of that standard; or any apparatus which could be altered in such a way as to be of that type.

GENERAL PROVISIONS

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Force majeure means, for purposes of §60.8, an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents the owner or operator from complying with the regulatory requirement to conduct performance tests within the specified timeframe despite the affected facility's best efforts to fulfill the obligation. Examples of such events are acts of nature, acts of war or terrorism, or equipment failure or safety hazard beyond the control of the affected facility.

Isokinetic sampling means sampling in which the linear velocity of the gas entering the sampling nozzle is equal to that of the undisturbed gas stream at the sample point.

Issuance of a part 70 permit will occur, if the State is the permitting authority, in accordance with the requirements of part 70 of this chapter and the applicable, approved State permit program. When the EPA is the permitting authority, issuance of a Title V permit occurs immediately after the EPA takes final action on the final permit.

Malfunction means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

Modification means any physical change in, or change in the method of operation of, an existing facility which increases the amount of any air pollutant (to which a standard applies) emitted into the atmosphere by that facility or which results in the emission of any air pollutant (to which a standard applies) into the atmosphere not previously emitted.

Monitoring device means the total equipment, required under the monitoring of operations sections in applicable subparts, used to measure and record (if applicable) process parameters.

Nitrogen oxides means all oxides of nitrogen except nitrous oxide, as measured by test methods set forth in this part.

One-hour period means any 60-minute period commencing on the hour.

Opacity means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background.

Owner or operator means any person who owns, leases, operates, controls, or supervises an affected facility or a stationary source of which an affected facility is a part.

Part 70 permit means any permit issued, renewed, or revised pursuant to part 70 of this chapter.

Particulate matter means any finely divided solid or liquid material, other than uncombined water, as measured by the reference methods specified under each applicable subpart, or an equivalent or alternative method.

Permit program means a comprehensive State operating permit system established pursuant to title V of the Act (42 U.S.C. 7661) and regulations codified in part 70 of this chapter and applicable State regulations, or a comprehensive Federal operating permit system established pursuant to title V of the Act and regulations codified in this chapter.

Permitting authority means:

- (1) The State air pollution control agency, local agency, other State agency, or other agency authorized by the Administrator to carry out a permit program under part 70 of this chapter; or
- (2) The Administrator, in the case of EPA-implemented permit programs under title V of the Act (42 U.S.C. 7661).

Proportional sampling means sampling at a rate that produces a constant ratio of sampling rate to stack gas flow rate.

Reactivation of a very clean coal-fired electric utility steam generating unit means any physical change or change in the method of operation associated with the commencement of commercial operations by a coal-fired utility unit after a period of discontinued operation where the unit:

- (1) Has not been in operation for the two-year period prior to the enactment of the Clean Air Act Amendments of 1990, and the emissions from such unit continue to be carried in the permitting authority's emissions inventory at the time of enactment;
- (2) Was equipped prior to shut-down with a continuous system of emissions control that achieves a removal efficiency for sulfur dioxide of no less than 85 percent and a removal efficiency for particulates of no less than 98 percent;

GENERAL PROVISIONS

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(3) Is equipped with low-NO_x burners prior to the time of commencement of operations following reactivation; and

(4) Is otherwise in compliance with the requirements of the Clean Air Act.

Reference method means any method of sampling and analyzing for an air pollutant as specified in the applicable subpart.

Repowering means replacement of an existing coal-fired boiler with one of the following clean coal technologies: atmospheric or pressurized fluidized bed combustion, integrated gasification combined cycle, magnetohydrodynamics, direct and indirect coal-fired turbines, integrated gasification fuel cells, or as determined by the Administrator, in consultation with the Secretary of Energy, a derivative of one or more of these technologies, and any other technology capable of controlling multiple combustion emissions simultaneously with improved boiler or generation efficiency and with significantly greater waste reduction relative to the performance of technology in widespread commercial use as of November 15, 1990. Repowering shall also include any oil and/or gas-fired unit which has been awarded clean coal technology demonstration funding as of January 1, 1991, by the Department of Energy.

Run means the net period of time during which an emission sample is collected. Unless otherwise specified, a run may be either intermittent or continuous within the limits of good engineering practice.

Shutdown means the cessation of operation of an affected facility for any purpose.

Six-minute period means any one of the 10 equal parts of a one-hour period.

Standard means a standard of performance proposed or promulgated under this part.

Standard conditions means a temperature of 293 K (68F) and a pressure of 101.3 kilopascals (29.92 in Hg).

Startup means the setting in operation of an affected facility for any purpose.

State means all non-Federal authorities, including local agencies, interstate associations, and State-wide programs, that have delegated authority to implement: (1) The provisions of this part; and/or (2) the permit program established under part 70 of this chapter. The term State shall have its conventional meaning where clear from the context.

Stationary source means any building, structure, facility, or installation which emits or may emit any air pollutant.

Title V permit means any permit issued, renewed, or revised pursuant to Federal or State regulations established to implement title V of the Act (42 U.S.C. 7661). A title V permit issued by a State permitting authority is called a part 70 permit in this part.

Volatile Organic Compound means any organic compound which participates in atmospheric photochemical reactions; or which is measured by a reference method, an equivalent method, an alternative method, or which is determined by procedures specified under any subpart.

[44 FR 55173, Sept. 25, 1979, as amended at 45 FR 5617, Jan. 23, 1980; 45 FR 85415, Dec. 24, 1980; 54 FR 6662, Feb. 14, 1989; 55 FR 51382, Dec. 13, 1990; 57 FR 32338, July 21, 1992; 59 FR 12427, Mar. 16, 1994; 72 FR 27442, May 16, 2007]

§ 60.3 Units and abbreviations.

Used in this part are abbreviations and symbols of units of measure. These are defined as follows:

(a) System International (SI) units of measure:

A—ampere

g—gram

Hz—hertz

J—joule

K—degree Kelvin

kg—kilogram

m—meter

GENERAL PROVISIONS

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m³—cubic meter

mg—milligram—10⁻³ gram

mm—millimeter—10⁻³ meter

Mg—megagram—10⁶ gram

mol—mole

N—newton

ng—nanogram—10⁻⁹ gram

nm—nanometer—10⁻⁹ meter

Pa—pascal

s—second

V—volt

W—watt

Ω—ohm

μg—microgram—10⁻⁶ gram

(b) Other units of measure:

Btu—British thermal unit

°C—degree Celsius (centigrade)

cal—calorie

cfm—cubic feet per minute

cu ft—cubic feet

dcf—dry cubic feet

dcm—dry cubic meter

dscf—dry cubic feet at standard conditions

dscm—dry cubic meter at standard conditions

eq—equivalent

°F—degree Fahrenheit

ft—feet

gal—gallon

gr—grain

g-eq—gram equivalent

hr—hour

in—inch

k—1,000

l—liter

lpm—liter per minute

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lb—pound

meq—milliequivalent

min—minute

ml—milliliter

mol. wt.—molecular weight

ppb—parts per billion

ppm—parts per million

psia—pounds per square inch absolute

psig—pounds per square inch gage

°R—degree Rankine

scf—cubic feet at standard conditions

scfh—cubic feet per hour at standard conditions

scm—cubic meter at standard conditions

sec—second

sq ft—square feet

std—at standard conditions

(c) Chemical nomenclature:

CdS—cadmium sulfide

CO—carbon monoxide

CO₂—carbon dioxide

HCl—hydrochloric acid

Hg—mercury

H₂O—water

H₂S—hydrogen sulfide

H₂SO₄—sulfuric acid

N₂—nitrogen

NO—nitric oxide

NO₂—nitrogen dioxide

NO_x—nitrogen oxides

O₂—oxygen

SO₂—sulfur dioxide

SO₃—sulfur trioxide

SO_x—sulfur oxides

(d) Miscellaneous:

A.S.T.M.—American Society for Testing and Materials

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[42 FR 37000, July 19, 1977; 42 FR 38178, July 27, 1977]

§ 60.4 Address.

All addresses that pertain to Florida have been incorporated. To see the complete list of addresses please go to <http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&rgn=div6&view=text&node=40:6.0.1.1.1.1&idno=40>.

Link to an amendment published at 73 FR 18164, Apr. 3, 2008.

- (a) All requests, reports, applications, submittals, and other communications to the Administrator pursuant to this part shall be submitted in duplicate to the appropriate Regional Office of the U.S. Environmental Protection Agency to the attention of the Director of the Division indicated in the following list of EPA Regional Offices.

Region IV (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee), Director, Air and Waste Management Division, U.S. Environmental Protection Agency, 345 Courtland Street, NE., Atlanta, GA 30365.

- (b) Section 111(c) directs the Administrator to delegate to each State, when appropriate, the authority to implement and enforce standards of performance for new stationary sources located in such State. All information required to be submitted to EPA under paragraph (a) of this section, must also be submitted to the appropriate State Agency of any State to which this authority has been delegated (provided, that each specific delegation may except sources from a certain Federal or State reporting requirement). The appropriate mailing address for those States whose delegation request has been approved is as follows:

(K) Bureau of Air Quality Management, Department of Environmental Regulation, Twin Towers Office Building, 2600 Blair Stone Road, Tallahassee, FL 32301.

[40 FR 18169, Apr. 25, 1975]

Editorial Note: For Federal Register citations affecting §60.4 see the List of CFR Sections Affected which appears in the Finding Aids section of the printed volume and on GPO Access.

§ 60.5 Determination of construction or modification.

- (a) When requested to do so by an owner or operator, the Administrator will make a determination of whether action taken or intended to be taken by such owner or operator constitutes construction (including reconstruction) or modification or the commencement thereof within the meaning of this part.
- (b) The Administrator will respond to any request for a determination under paragraph (a) of this section within 30 days of receipt of such request.

[40 FR 58418, Dec. 16, 1975]

§ 60.6 Review of plans.

- (a) When requested to do so by an owner or operator, the Administrator will review plans for construction or modification for the purpose of providing technical advice to the owner or operator.
- (b)
- (1) A separate request shall be submitted for each construction or modification project.
 - (2) Each request shall identify the location of such project, and be accompanied by technical information describing the proposed nature, size, design, and method of operation of each affected facility involved in such project, including information on any equipment to be used for measurement or control of emissions.
- (c) Neither a request for plans review nor advice furnished by the Administrator in response to such request shall (1) relieve an owner or operator of legal responsibility for compliance with any provision of this part or of any applicable State or local requirement, or (2) prevent the Administrator from implementing or enforcing any provision of this part or taking any other action authorized by the Act.

[36 FR 24877, Dec. 23, 1971, as amended at 39 FR 9314, Mar. 8, 1974]

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§ 60.7 Notification and record keeping.

- (a) Any owner or operator subject to the provisions of this part shall furnish the Administrator written notification or, if acceptable to both the Administrator and the owner or operator of a source, electronic notification, as follows:
- (1) A notification of the date construction (or reconstruction as defined under §60.15) of an affected facility is commenced postmarked no later than 30 days after such date. This requirement shall not apply in the case of mass-produced facilities which are purchased in completed form.
 - (2) [Reserved]
 - (3) A notification of the actual date of initial startup of an affected facility postmarked within 15 days after such date.
 - (4) A notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in §60.14(e). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Administrator may request additional relevant information subsequent to this notice.
 - (5) A notification of the date upon which demonstration of the continuous monitoring system performance commences in accordance with §60.13(c). Notification shall be postmarked not less than 30 days prior to such date.
 - (6) A notification of the anticipated date for conducting the opacity observations required by §60.11(e)(1) of this part. The notification shall also include, if appropriate, a request for the Administrator to provide a visible emissions reader during a performance test. The notification shall be postmarked not less than 30 days prior to such date.
 - (7) A notification that continuous opacity monitoring system data results will be used to determine compliance with the applicable opacity standard during a performance test required by §60.8 in lieu of Method 9 observation data as allowed by §60.11(e)(5) of this part. This notification shall be postmarked not less than 30 days prior to the date of the performance test.
- (b) Any owner or operator subject to the provisions of this part shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.
- (c) Each owner or operator required to install a continuous monitoring device shall submit excess emissions and monitoring systems performance report (excess emissions are defined in applicable subparts) and/or summary report form (see paragraph (d) of this section) to the Administrator semiannually, except when: more frequent reporting is specifically required by an applicable subpart; or the Administrator, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. All reports shall be postmarked by the 30th day following the end of each six-month period. Written reports of excess emissions shall include the following information:
- (1) The magnitude of excess emissions computed in accordance with §60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions. The process operating time during the reporting period.
 - (2) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted.
 - (3) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.
 - (4) When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.
- (d) The summary report form shall contain the information and be in the format shown in figure 1 unless otherwise specified by the Administrator. One summary report form shall be submitted for each pollutant monitored at each affected facility.

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- (1) If the total duration of excess emissions for the reporting period is less than 1 percent of the total operating time for the reporting period and CMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, only the summary report form shall be submitted and the excess emission report described in §60.7(c) need not be submitted unless requested by the Administrator.
- (2) If the total duration of excess emissions for the reporting period is 1 percent or greater of the total operating time for the reporting period or the total CMS downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, the summary report form and the excess emission report described in §60.7(c) shall both be submitted.

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Figure 1—Summary Report—Gaseous and Opacity Excess Emission and Monitoring System Performance

Pollutant (Circle One—SO₂/NO_x/TRS/H₂S/CO/Opacity)

Reporting period dates: From _____ to _____

Company: _____

Emission Limitation _____

Address: _____

Monitor Manufacturer and Model No. _____

Date of Latest CMS Certification or Audit _____

Process Unit(s) Description: _____

Total source operating time in reporting period¹ _____

Emission data summary ¹		CMS performance summary ¹	
1. Duration of excess emissions in reporting period due to:		1. CMS downtime in reporting period due to:	
a. Startup/shutdown		a. Monitor equipment malfunctions	
b. Control equipment problems		b. Non-Monitor equipment malfunctions	
c. Process problems		c. Quality assurance calibration	
d. Other known causes		d. Other known causes	
e. Unknown causes		e. Unknown causes	
2. Total duration of excess emission		2. Total CMS Downtime	
3. Total duration of excess emissions × (100) [Total source operating time]	% ²	3. [Total CMS Downtime] × (100) [Total source operating time]	% ²

¹For opacity, record all times in minutes. For gases, record all times in hours.

²For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in §60.7(c) shall be submitted.

On a separate page, describe any changes since last quarter in CMS, process or controls. I certify that the information contained in this report is true, accurate, and complete.

Name

Signature

Title

Date

Tampa Electric Company
Polk Power Station

Final Permit No. 1050233-026-AV
Title V Air Operation Permit Renewal

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(e)

- (1) Notwithstanding the frequency of reporting requirements specified in paragraph (c) of this section, an owner or operator who is required by an applicable subpart to submit excess emissions and monitoring systems performance reports (and summary reports) on a quarterly (or more frequent) basis may reduce the frequency of reporting for that standard to semiannual if the following conditions are met:
 - (i) For 1 full year (e.g., 4 quarterly or 12 monthly reporting periods) the affected facility's excess emissions and monitoring systems reports submitted to comply with a standard under this part continually demonstrate that the facility is in compliance with the applicable standard;
 - (ii) The owner or operator continues to comply with all recordkeeping and monitoring requirements specified in this subpart and the applicable standard; and
 - (iii) The Administrator does not object to a reduced frequency of reporting for the affected facility, as provided in paragraph (e)(2) of this section.
- (2) The frequency of reporting of excess emissions and monitoring systems performance (and summary) reports may be reduced only after the owner or operator notifies the Administrator in writing of his or her intention to make such a change and the Administrator does not object to the intended change. In deciding whether to approve a reduced frequency of reporting, the Administrator may review information concerning the source's entire previous performance history during the required recordkeeping period prior to the intended change, including performance test results, monitoring data, and evaluations of an owner or operator's conformance with operation and maintenance requirements. Such information may be used by the Administrator to make a judgment about the source's potential for noncompliance in the future. If the Administrator disapproves the owner or operator's request to reduce the frequency of reporting, the Administrator will notify the owner or operator in writing within 45 days after receiving notice of the owner or operator's intention. The notification from the Administrator to the owner or operator will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval is automatically granted.
- (3) As soon as monitoring data indicate that the affected facility is not in compliance with any emission limitation or operating parameter specified in the applicable standard, the frequency of reporting shall revert to the frequency specified in the applicable standard, and the owner or operator shall submit an excess emissions and monitoring systems performance report (and summary report, if required) at the next appropriate reporting period following the noncomplying event. After demonstrating compliance with the applicable standard for another full year, the owner or operator may again request approval from the Administrator to reduce the frequency of reporting for that standard as provided for in paragraphs (e)(1) and (e)(2) of this section.

- (f) Any owner or operator subject to the provisions of this part shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by this part recorded in a permanent form suitable for inspection. The file shall be retained for at least two years following the date of such measurements, maintenance, reports, and records, except as follows:
 - (1) This paragraph applies to owners or operators required to install a continuous emissions monitoring system (CEMS) where the CEMS installed is automated, and where the calculated data averages do not exclude periods of CEMS breakdown or malfunction. An automated CEMS records and reduces the measured data to the form of the pollutant emission standard through the use of a computerized data acquisition system. In lieu of maintaining a file of all CEMS subhourly measurements as required under paragraph (f) of this section, the owner or operator shall retain the most recent consecutive three averaging periods of subhourly measurements and a file that contains a hard copy of the data acquisition system algorithm used to reduce the measured data into the reportable form of the standard.
 - (2) This paragraph applies to owners or operators required to install a CEMS where the measured data is manually reduced to obtain the reportable form of the standard, and where the calculated data averages do not exclude periods of CEMS breakdown or malfunction. In lieu of maintaining a file of all CEMS subhourly measurements as required under paragraph (f) of this section, the owner or operator shall retain all subhourly measurements for the most recent

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reporting period. The subhourly measurements shall be retained for 120 days from the date of the most recent summary or excess emission report submitted to the Administrator.

- (3) The Administrator or delegated authority, upon notification to the source, may require the owner or operator to maintain all measurements as required by paragraph (f) of this section, if the Administrator or the delegated authority determines these records are required to more accurately assess the compliance status of the affected source.
- (g) If notification substantially similar to that in paragraph (a) of this section is required by any other State or local agency, sending the Administrator a copy of that notification will satisfy the requirements of paragraph (a) of this section.
- (h) Individual subparts of this part may include specific provisions which clarify or make inapplicable the provisions set forth in this section.

[36 FR 24877, Dec. 28, 1971, as amended at 40 FR 46254, Oct. 6, 1975; 40 FR 58418, Dec. 16, 1975; 45 FR 5617, Jan. 23, 1980; 48 FR 48335, Oct. 18, 1983; 50 FR 53113, Dec. 27, 1985; 52 FR 9781, Mar. 26, 1987; 55 FR 51382, Dec. 13, 1990; 59 FR 12428, Mar. 16, 1994; 59 FR 47265, Sep. 15, 1994; 64 FR 7463, Feb. 12, 1999]

§ 60.8 Performance tests.

- (a) Except as specified in paragraphs (a)(1), (a)(2), (a)(3), and (a)(4) of this section, within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility, or at such other times specified by this part, and at such other times as may be required by the Administrator under section 114 of the Act, the owner or operator of such facility shall conduct performance test(s) and furnish the Administrator a written report of the results of such performance test(s).
 - (1) If a force majeure is about to occur, occurs, or has occurred for which the affected owner or operator intends to assert a claim of force majeure, the owner or operator shall notify the Administrator, in writing as soon as practicable following the date the owner or operator first knew, or through due diligence should have known that the event may cause or caused a delay in testing beyond the regulatory deadline, but the notification must occur before the performance test deadline unless the initial force majeure or a subsequent force majeure event delays the notice, and in such cases, the notification shall occur as soon as practicable.
 - (2) The owner or operator shall provide to the Administrator a written description of the force majeure event and a rationale for attributing the delay in testing beyond the regulatory deadline to the force majeure; describe the measures taken or to be taken to minimize the delay; and identify a date by which the owner or operator proposes to conduct the performance test. The performance test shall be conducted as soon as practicable after the force majeure occurs.
 - (3) The decision as to whether or not to grant an extension to the performance test deadline is solely within the discretion of the Administrator. The Administrator will notify the owner or operator in writing of approval or disapproval of the request for an extension as soon as practicable.
 - (4) Until an extension of the performance test deadline has been approved by the Administrator under paragraphs (a)(1), (2), and (3) of this section, the owner or operator of the affected facility remains strictly subject to the requirements of this part.
- (b) Performance tests shall be conducted and data reduced in accordance with the test methods and procedures contained in each applicable subpart unless the Administrator (1) specifies or approves, in specific cases, the use of a reference method with minor changes in methodology, (2) approves the use of an equivalent method, (3) approves the use of an alternative method the results of which he has determined to be adequate for indicating whether a specific source is in compliance, (4) waives the requirement for performance tests because the owner or operator of a source has demonstrated by other means to the Administrator's satisfaction that the affected facility is in compliance with the standard, or (5) approves shorter sampling times and smaller sample volumes when necessitated by process variables or other factors. Nothing in this paragraph shall be construed to abrogate the Administrator's authority to require testing under section 114 of the Act.
- (c) Performance tests shall be conducted under such conditions as the Administrator shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Administrator

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such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.

- (d) The owner or operator of an affected facility shall provide the Administrator at least 30 days prior notice of any performance test, except as specified under other subparts, to afford the Administrator the opportunity to have an observer present. If after 30 days notice for an initially scheduled performance test, there is a delay (due to operational problems, etc.) in conducting the scheduled performance test, the owner or operator of an affected facility shall notify the Administrator (or delegated State or local agency) as soon as possible of any delay in the original test date, either by providing at least 7 days prior notice of the rescheduled date of the performance test, or by arranging a rescheduled date with the Administrator (or delegated State or local agency) by mutual agreement.
- (e) The owner or operator of an affected facility shall provide, or cause to be provided, performance testing facilities as follows:
 - (1) Sampling ports adequate for test methods applicable to such facility. This includes (i) constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures and (ii) providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures.
 - (2) Safe sampling platform(s).
 - (3) Safe access to sampling platform(s).
 - (4) Utilities for sampling and testing equipment.
- (f) Unless otherwise specified in the applicable subpart, each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic means of results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances, beyond the owner or operator's control, compliance may, upon the Administrator's approval, be determined using the arithmetic mean of the results of the two other runs.

[36 FR 24877, Dec. 23, 1971, as amended at 39 FR 9314, Mar. 8, 1974; 42 FR 57126, Nov. 1, 1977; 44 FR 33612, June 11, 1979; 54 FR 6662, Feb. 14, 1989; 54 FR 21344, May 17, 1989; 64 FR 7463, Feb. 12, 1999; 72 FR 27442, May 16, 2007]

§ 60.9 Availability of information.

The availability to the public of information provided to, or otherwise obtained by, the Administrator under this part shall be governed by part 2 of this chapter. (Information submitted voluntarily to the Administrator for the purposes of §§60.5 and 60.6 is governed by §§2.201 through 2.213 of this chapter and not by §2.301 of this chapter.)

§ 60.10 State authority.

The provisions of this part shall not be construed in any manner to preclude any State or political subdivision thereof from:

- (a) Adopting and enforcing any emission standard or limitation applicable to an affected facility, provided that such emission standard or limitation is not less stringent than the standard applicable to such facility.
- (b) Requiring the owner or operator of an affected facility to obtain permits, licenses, or approvals prior to initiating construction, modification, or operation of such facility.

§ 60.11 Compliance with standards and maintenance requirements.

- (a) Compliance with standards in this part, other than opacity standards, shall be determined in accordance with performance tests established by §60.8, unless otherwise specified in the applicable standard.
- (b) Compliance with opacity standards in this part shall be determined by conducting observations in accordance with Method 9 in appendix A of this part, any alternative method that is approved by the Administrator, or as provided in

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paragraph (e)(5) of this section. For purposes of determining initial compliance, the minimum total time of observations shall be 3 hours (30 6-minute averages) for the performance test or other set of observations (meaning those fugitive-type emission sources subject only to an opacity standard).

- (c) The opacity standards set forth in this part shall apply at all times except during periods of startup, shutdown, malfunction, and as otherwise provided in the applicable standard.
- (d) At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.
- (e)
 - (1) For the purpose of demonstrating initial compliance, opacity observations shall be conducted concurrently with the initial performance test required in §60.8 unless one of the following conditions apply. If no performance test under §60.8 is required, then opacity observations shall be conducted within 60 days after achieving the maximum production rate at which the affected facility will be operated but no later than 180 days after initial startup of the facility. If visibility or other conditions prevent the opacity observations from being conducted concurrently with the initial performance test required under §60.8, the source owner or operator shall reschedule the opacity observations as soon after the initial performance test as possible, but not later than 30 days thereafter, and shall advise the Administrator of the rescheduled date. In these cases, the 30-day prior notification to the Administrator required in §60.7(a)(6) shall be waived. The rescheduled opacity observations shall be conducted (to the extent possible) under the same operating conditions that existed during the initial performance test conducted under §60.8. The visible emissions observer shall determine whether visibility or other conditions prevent the opacity observations from being made concurrently with the initial performance test in accordance with procedures contained in Method 9 of appendix B of this part. Opacity readings of portions of plumes which contain condensed, uncombined water vapor shall not be used for purposes of determining compliance with opacity standards. The owner or operator of an affected facility shall make available, upon request by the Administrator, such records as may be necessary to determine the conditions under which the visual observations were made and shall provide evidence indicating proof of current visible observer emission certification. Except as provided in paragraph (e)(5) of this section, the results of continuous monitoring by transmissometer which indicate that the opacity at the time visual observations were made was not in excess of the standard are probative but not conclusive evidence of the actual opacity of an emission, provided that the source shall meet the burden of proving that the instrument used meets (at the time of the alleged violation) Performance Specification 1 in appendix B of this part, has been properly maintained and (at the time of the alleged violation) that the resulting data have not been altered in any way.
 - (2) Except as provided in paragraph (e)(3) of this section, the owner or operator of an affected facility to which an opacity standard in this part applies shall conduct opacity observations in accordance with paragraph (b) of this section, shall record the opacity of emissions, and shall report to the Administrator the opacity results along with the results of the initial performance test required under §60.8. The inability of an owner or operator to secure a visible emissions observer shall not be considered a reason for not conducting the opacity observations concurrent with the initial performance test.
 - (3) The owner or operator of an affected facility to which an opacity standard in this part applies may request the Administrator to determine and to record the opacity of emissions from the affected facility during the initial performance test and at such times as may be required. The owner or operator of the affected facility shall report the opacity results. Any request to the Administrator to determine and to record the opacity of emissions from an affected facility shall be included in the notification required in §60.7(a)(6). If, for some reason, the Administrator cannot determine and record the opacity of emissions from the affected facility during the performance test, then the provisions of paragraph (e)(1) of this section shall apply.
 - (4) An owner or operator of an affected facility using a continuous opacity monitor (transmissometer) shall record the monitoring data produced during the initial performance test required by §60.8 and shall furnish the Administrator a written report of the monitoring results along with Method 9 and §60.8 performance test results.

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- (5) An owner or operator of an affected facility subject to an opacity standard may submit, for compliance purposes, continuous opacity monitoring system (COMS) data results produced during any performance test required under §60.8 in lieu of Method 9 observation data. If an owner or operator elects to submit COMS data for compliance with the opacity standard, he shall notify the Administrator of that decision, in writing, at least 30 days before any performance test required under §60.8 is conducted. Once the owner or operator of an affected facility has notified the Administrator to that effect, the COMS data results will be used to determine opacity compliance during subsequent tests required under §60.8 until the owner or operator notifies the Administrator, in writing, to the contrary. For the purpose of determining compliance with the opacity standard during a performance test required under §60.8 using COMS data, the minimum total time of COMS data collection shall be averages of all 6-minute continuous periods within the duration of the mass emission performance test. Results of the COMS opacity determinations shall be submitted along with the results of the performance test required under §60.8. The owner or operator of an affected facility using a COMS for compliance purposes is responsible for demonstrating that the COMS meets the requirements specified in §60.13(c) of this part, that the COMS has been properly maintained and operated, and that the resulting data have not been altered in any way. If COMS data results are submitted for compliance with the opacity standard for a period of time during which Method 9 data indicates noncompliance, the Method 9 data will be used to determine compliance with the opacity standard.
- (6) Upon receipt from an owner or operator of the written reports of the results of the performance tests required by §60.8, the opacity observation results and observer certification required by §60.11(e)(1), and the COMS results, if applicable, the Administrator will make a finding concerning compliance with opacity and other applicable standards. If COMS data results are used to comply with an opacity standard, only those results are required to be submitted along with the performance test results required by §60.8. If the Administrator finds that an affected facility is in compliance with all applicable standards for which performance tests are conducted in accordance with §60.8 of this part but during the time such performance tests are being conducted fails to meet any applicable opacity standard, he shall notify the owner or operator and advise him that he may petition the Administrator within 10 days of receipt of notification to make appropriate adjustment to the opacity standard for the affected facility..
- (7) The Administrator will grant such a petition upon a demonstration by the owner or operator that the affected facility and associated air pollution control equipment was operated and maintained in a manner to minimize the opacity of emissions during the performance tests; that the performance tests were performed under the conditions established by the Administrator; and that the affected facility and associated air pollution control equipment were incapable of being adjusted or operated to meet the applicable opacity standard.
- (8) The Administrator will establish an opacity standard for the affected facility meeting the above requirements at a level at which the source will be able, as indicated by the performance and opacity tests, to meet the opacity standard at all times during which the source is meeting the mass or concentration emission standard. The Administrator will promulgate the new opacity standard in the Federal Register.
- (f) Special provisions set forth under an applicable subpart shall supersede any conflicting provisions in paragraphs (a) through (e) of this section.
- (g) For the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any standard in this part, nothing in this part shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed.

[38 FR 28565, Oct. 15, 1973, as amended at 39 FR 39873, Nov. 12, 1974; 43 FR 8800, Mar. 3, 1978; 45 FR 23379, Apr. 4, 1980; 48 FR 48335, Oct. 18, 1983; 50 FR 53113, Dec. 27, 1985; 51 FR 1790, Jan. 15, 1986; 52 FR 9781, Mar. 26, 1987; 62 FR 8328, Feb. 24, 1997; 65 FR 61749, Oct. 17, 2000]

§ 60.12 Circumvention.

No owner or operator subject to the provisions of this part shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere.

[39 FR 9314, Mar. 8, 1974]

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§ 60.13 Monitoring requirements.

- (a) For the purposes of this section, all continuous monitoring systems required under applicable subparts shall be subject to the provisions of this section upon promulgation of performance specifications for continuous monitoring systems under appendix B to this part and, if the continuous monitoring system is used to demonstrate compliance with emission limits on a continuous basis, appendix F to this part, unless otherwise specified in an applicable subpart or by the Administrator. Appendix F is applicable December 4, 1987.
- (b) All continuous monitoring systems and monitoring devices shall be installed and operational prior to conducting performance tests under §60.8. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device.
- (c) If the owner or operator of an affected facility elects to submit continuous opacity monitoring system (COMS) data for compliance with the opacity standard as provided under §60.11(e)(5), he shall conduct a performance evaluation of the COMS as specified in Performance Specification 1, appendix B, of this part before the performance test required under §60.8 is conducted. Otherwise, the owner or operator of an affected facility shall conduct a performance evaluation of the COMS or continuous emission monitoring system (CEMS) during any performance test required under §60.8 or within 30 days thereafter in accordance with the applicable performance specification in appendix B of this part. The owner or operator of an affected facility shall conduct COMS or CEMS performance evaluations at such other times as may be required by the Administrator under section 114 of the Act.
 - (1) The owner or operator of an affected facility using a COMS to determine opacity compliance during any performance test required under §60.8 and as described in §60.11(e)(5) shall furnish the Administrator two or, upon request, more copies of a written report of the results of the COMS performance evaluation described in paragraph (c) of this section at least 10 days before the performance test required under §60.8 is conducted.
 - (2) Except as provided in paragraph (c)(1) of this section, the owner or operator of an affected facility shall furnish the Administrator within 60 days of completion two or, upon request, more copies of a written report of the results of the performance evaluation.
- (d)
 - (1) Owners and operators of a CEMS installed in accordance with the provisions of this part, must check the zero (or low level value between 0 and 20 percent of span value) and span (50 to 100 percent of span value) calibration drifts at least once daily in accordance with a written procedure. The zero and span must, as a minimum, be adjusted whenever either the 24-hour zero drift or the 24-hour span drift exceeds two times the limit of the applicable performance specification in appendix B of this part. The system must allow the amount of the excess zero and span drift to be recorded and quantified whenever specified. Owners and operators of a COMS installed in accordance with the provisions of this part, must automatically, intrinsic to the opacity monitor, check the zero and upscale (span) calibration drifts at least once daily. For a particular COMS, the acceptable range of zero and upscale calibration materials is as defined in the applicable version of PS-1 in appendix B of this part. For a COMS, the optical surfaces, exposed to the effluent gases, must be cleaned before performing the zero and upscale drift adjustments, except for systems using automatic zero adjustments. The optical surfaces must be cleaned when the cumulative automatic zero compensation exceeds 4 percent opacity.
 - (2) Unless otherwise approved by the Administrator, the following procedures must be followed for a COMS. Minimum procedures must include an automated method for producing a simulated zero opacity condition and an upscale opacity condition using a certified neutral density filter or other related technique to produce a known obstruction of the light beam. Such procedures must provide a system check of all active analyzer internal optics with power or curvature, all active electronic circuitry including the light source and photodetector assembly, and electronic or electro-mechanical systems and hardware and or software used during normal measurement operation.
- (e) Except for system breakdowns, repairs, calibration checks, and zero and span adjustments required under paragraph (d) of this section, all continuous monitoring systems shall be in continuous operation and shall meet minimum frequency of operation requirements as follows:

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- (1) All continuous monitoring systems referenced by paragraph (c) of this section for measuring opacity of emissions shall complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.
 - (2) All continuous monitoring systems referenced by paragraph (c) of this section for measuring emissions, except opacity, shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.
- (f) All continuous monitoring systems or monitoring devices shall be installed such that representative measurements of emissions or process parameters from the affected facility are obtained. Additional procedures for location of continuous monitoring systems contained in the applicable Performance Specifications of appendix B of this part shall be used.
- (g) When the effluents from a single affected facility or two or more affected facilities subject to the same emission standards are combined before being released to the atmosphere, the owner or operator may install applicable continuous monitoring systems on each effluent or on the combined effluent. When the affected facilities are not subject to the same emission standards, separate continuous monitoring systems shall be installed on each effluent. When the effluent from one affected facility is released to the atmosphere through more than one point, the owner or operator shall install an applicable continuous monitoring system on each separate effluent unless the installation of fewer systems is approved by the Administrator. When more than one continuous monitoring system is used to measure the emissions from one affected facility (e.g., multiple breechings, multiple outlets), the owner or operator shall report the results as required from each continuous monitoring system.
- (h)
- (1) Owners or operators of all continuous monitoring systems for measurement of opacity shall reduce all data to 6-minute averages and for continuous monitoring systems other than opacity to 1-hour averages for time periods as defined in §60.2. Six-minute opacity averages shall be calculated from 36 or more data points equally spaced over each 6-minute period.
 - (2) For continuous monitoring systems other than opacity, 1-hour averages shall be computed as follows, except that the provisions pertaining to the validation of partial operating hours are only applicable for affected facilities that are required by the applicable subpart to include partial hours in the emission calculations:
 - (i) Except as provided under paragraph (h)(2)(iii) of this section, for a full operating hour (any clock hour with 60 minutes of unit operation), at least four valid data points are required to calculate the hourly average, *i.e.*, one data point in each of the 15-minute quadrants of the hour.
 - (ii) Except as provided under paragraph (h)(2)(iii) of this section, for a partial operating hour (any clock hour with less than 60 minutes of unit operation), at least one valid data point in each 15-minute quadrant of the hour in which the unit operates is required to calculate the hourly average.
 - (iii) For any operating hour in which required maintenance or quality-assurance activities are performed:
 - (A) If the unit operates in two or more quadrants of the hour, a minimum of two valid data points, separated by at least 15 minutes, is required to calculate the hourly average; or
 - (B) If the unit operates in only one quadrant of the hour, at least one valid data point is required to calculate the hourly average.
 - (iv) If a daily calibration error check is failed during any operating hour, all data for that hour shall be invalidated, unless a subsequent calibration error test is passed in the same hour and the requirements of paragraph (h)(2)(iii) of this section are met, based solely on valid data recorded after the successful calibration.
 - (v) For each full or partial operating hour, all valid data points shall be used to calculate the hourly average.
 - (vi) Except as provided under paragraph (h)(2)(vii) of this section, data recorded during periods of continuous monitoring system breakdown, repair, calibration checks, and zero and span adjustments shall not be included in the data averages computed under this paragraph.
 - (vii) Owners and operators complying with the requirements of §60.7(f)(1) or (2) must include any data recorded during periods of monitor breakdown or malfunction in the data averages.

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- (viii) When specified in an applicable subpart, hourly averages for certain partial operating hours shall not be computed or included in the emission averages (*e.g.* hours with < 30 minutes of unit operation under §60.47b(d)).
- (ix) Either arithmetic or integrated averaging of all data may be used to calculate the hourly averages. The data may be recorded in reduced or nonreduced form (*e.g.* , ppm pollutant and percent O₂ or ng/J of pollutant).
- (3) All excess emissions shall be converted into units of the standard using the applicable conversion procedures specified in the applicable subpart. After conversion into units of the standard, the data may be rounded to the same number of significant digits used in the applicable subpart to specify the emission limit.
 - (i) After receipt and consideration of written application, the Administrator may approve alternatives to any monitoring procedures or requirements of this part including, but not limited to the following:
 - (1) Alternative monitoring requirements when installation of a continuous monitoring system or monitoring device specified by this part would not provide accurate measurements due to liquid water or other interferences caused by substances in the effluent gases.
 - (2) Alternative monitoring requirements when the affected facility is infrequently operated.
 - (3) Alternative monitoring requirements to accommodate continuous monitoring systems that require additional measurements to correct for stack moisture conditions.
 - (4) Alternative locations for installing continuous monitoring systems or monitoring devices when the owner or operator can demonstrate that installation at alternate locations will enable accurate and representative measurements.
 - (5) Alternative methods of converting pollutant concentration measurements to units of the standards.
 - (6) Alternative procedures for performing daily checks of zero and span drift that do not involve use of span gases or test cells.
 - (7) Alternatives to the A.S.T.M. test methods or sampling procedures specified by any subpart.
 - (8) Alternative continuous monitoring systems that do not meet the design or performance requirements in Performance Specification 1, appendix B, but adequately demonstrate a definite and consistent relationship between its measurements and the measurements of opacity by a system complying with the requirements in Performance Specification 1. The Administrator may require that such demonstration be performed for each affected facility.
 - (9) Alternative monitoring requirements when the effluent from a single affected facility or the combined effluent from two or more affected facilities is released to the atmosphere through more than one point.
- (j) An alternative to the relative accuracy (RA) test specified in Performance Specification 2 of appendix B may be requested as follows:
 - (1) An alternative to the reference method tests for determining RA is available for sources with emission rates demonstrated to be less than 50 percent of the applicable standard. A source owner or operator may petition the Administrator to waive the RA test in Section 8.4 of Performance Specification 2 and substitute the procedures in Section 16.0 if the results of a performance test conducted according to the requirements in §60.8 of this subpart or other tests performed following the criteria in §60.8 demonstrate that the emission rate of the pollutant of interest in the units of the applicable standard is less than 50 percent of the applicable standard. For sources subject to standards expressed as control efficiency levels, a source owner or operator may petition the Administrator to waive the RA test and substitute the procedures in Section 16.0 of Performance Specification 2 if the control device exhaust emission rate is less than 50 percent of the level needed to meet the control efficiency requirement. The alternative procedures do not apply if the continuous emission monitoring system is used to determine compliance continuously with the applicable standard. The petition to waive the RA test shall include a detailed description of the procedures to be applied. Included shall be location and procedure for conducting the alternative, the concentration or response levels of the alternative RA materials, and the other equipment checks included in the alternative procedure. The Administrator will review the petition for completeness and applicability. The determination to grant a waiver will depend on the intended use of the CEMS data (*e.g.*, data collection purposes

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other than NSPS) and may require specifications more stringent than in Performance Specification 2 (e.g., the applicable emission limit is more stringent than NSPS).

- (2) The waiver of a CEMS RA test will be reviewed and may be rescinded at such time, following successful completion of the alternative RA procedure, that the CEMS data indicate that the source emissions are approaching the level. The criterion for reviewing the waiver is the collection of CEMS data showing that emissions have exceeded 70 percent of the applicable standard for seven, consecutive, averaging periods as specified by the applicable regulation(s). For sources subject to standards expressed as control efficiency levels, the criterion for reviewing the waiver is the collection of CEMS data showing that exhaust emissions have exceeded 70 percent of the level needed to meet the control efficiency requirement for seven, consecutive, averaging periods as specified by the applicable regulation(s) [e.g., §60.45(g) (2) and (3), §60.73(e), and §60.84(e)]. It is the responsibility of the source operator to maintain records and determine the level of emissions relative to the criterion on the waiver of RA testing. If this criterion is exceeded, the owner or operator must notify the Administrator within 10 days of such occurrence and include a description of the nature and cause of the increasing emissions. The Administrator will review the notification and may rescind the waiver and require the owner or operator to conduct a RA test of the CEMS as specified in Section 8.4 of Performance Specification 2.

[40 FR 46255, Oct. 6, 1975; 40 FR 59205, Dec. 22, 1975, as amended at 41 FR 35185, Aug. 20, 1976; 48 FR 13326, Mar. 30, 1983; 48 FR 23610, May 25, 1983; 48 FR 32986, July 20, 1983; 52 FR 9782, Mar. 26, 1987; 52 FR 17555, May 11, 1987; 52 FR 21007, June 4, 1987; 64 FR 7463, Feb. 12, 1999; 65 FR 48920, Aug. 10, 2000; 65 FR 61749, Oct. 17, 2000; 66 FR 44980, Aug. 27, 2001; 71 FR 31102, June 1, 2006; 72 FR 32714, June 13, 2007]

Editorial Note: At 65 FR 61749, Oct. 17, 2000, §60.13 was amended by revising the words “ng/J of pollutant” to read “ng of pollutant per J of heat input” in the sixth sentence of paragraph (h). However, the amendment could not be incorporated because the words “ng/J of pollutant” do not exist in the sixth sentence of paragraph (h).

§ 60.14 Modification.

- (a) Except as provided under paragraphs (e) and (f) of this section, any physical or operational change to an existing facility which results in an increase in the emission rate to the atmosphere of any pollutant to which a standard applies shall be considered a modification within the meaning of section 111 of the Act. Upon modification, an existing facility shall become an affected facility for each pollutant to which a standard applies and for which there is an increase in the emission rate to the atmosphere.
- (b) Emission rate shall be expressed as kg/hr of any pollutant discharged into the atmosphere for which a standard is applicable. The Administrator shall use the following to determine emission rate:
- (1) Emission factors as specified in the latest issue of “Compilation of Air Pollutant Emission Factors,” EPA Publication No. AP-42, or other emission factors determined by the Administrator to be superior to AP-42 emission factors, in cases where utilization of emission factors demonstrates that the emission level resulting from the physical or operational change will either clearly increase or clearly not increase.
 - (2) Material balances, continuous monitor data, or manual emission tests in cases where utilization of emission factors as referenced in paragraph (b)(1) of this section does not demonstrate to the Administrator's satisfaction whether the emission level resulting from the physical or operational change will either clearly increase or clearly not increase, or where an owner or operator demonstrates to the Administrator's satisfaction that there are reasonable grounds to dispute the result obtained by the Administrator utilizing emission factors as referenced in paragraph (b)(1) of this section. When the emission rate is based on results from manual emission tests or continuous monitoring systems, the procedures specified in appendix C of this part shall be used to determine whether an increase in emission rate has occurred. Tests shall be conducted under such conditions as the Administrator shall specify to the owner or operator based on representative performance of the facility. At least three valid test runs must be conducted before and at least three after the physical or operational change. All operating parameters which may affect emissions must be held constant to the maximum feasible degree for all test runs.
- (c) The addition of an affected facility to a stationary source as an expansion to that source or as a replacement for an existing facility shall not by itself bring within the applicability of this part any other facility within that source.
- (d) [Reserved]

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- (e) The following shall not, by themselves, be considered modifications under this part:
- (1) Maintenance, repair, and replacement which the Administrator determines to be routine for a source category, subject to the provisions of paragraph (c) of this section and §60.15.
 - (2) An increase in production rate of an existing facility, if that increase can be accomplished without a capital expenditure on that facility.
 - (3) An increase in the hours of operation.
 - (4) Use of an alternative fuel or raw material if, prior to the date any standard under this part becomes applicable to that source type, as provided by §60.1, the existing facility was designed to accommodate that alternative use. A facility shall be considered to be designed to accommodate an alternative fuel or raw material if that use could be accomplished under the facility's construction specifications as amended prior to the change. Conversion to coal required for energy considerations, as specified in section 111(a)(8) of the Act, shall not be considered a modification.
 - (5) The addition or use of any system or device whose primary function is the reduction of air pollutants, except when an emission control system is removed or is replaced by a system which the Administrator determines to be less environmentally beneficial.
 - (6) The relocation or change in ownership of an existing facility.
- (f) Special provisions set forth under an applicable subpart of this part shall supersede any conflicting provisions of this section.
- (g) Within 180 days of the completion of any physical or operational change subject to the control measures specified in paragraph (a) of this section, compliance with all applicable standards must be achieved.
- (h) No physical change, or change in the method of operation, at an existing electric utility steam generating unit shall be treated as a modification for the purposes of this section provided that such change does not increase the maximum hourly emissions of any pollutant regulated under this section above the maximum hourly emissions achievable at that unit during the 5 years prior to the change.
- (i) Repowering projects that are awarded funding from the Department of Energy as permanent clean coal technology demonstration projects (or similar projects funded by EPA) are exempt from the requirements of this section provided that such change does not increase the maximum hourly emissions of any pollutant regulated under this section above the maximum hourly emissions achievable at that unit during the five years prior to the change.
- (j)
- (1) Repowering projects that qualify for an extension under section 409(b) of the Clean Air Act are exempt from the requirements of this section, provided that such change does not increase the actual hourly emissions of any pollutant regulated under this section above the actual hourly emissions achievable at that unit during the 5 years prior to the change.
 - (2) This exemption shall not apply to any new unit that:
 - (i) Is designated as a replacement for an existing unit;
 - (ii) Qualifies under section 409(b) of the Clean Air Act for an extension of an emission limitation compliance date under section 405 of the Clean Air Act; and
 - (iii) Is located at a different site than the existing unit.
- (k) The installation, operation, cessation, or removal of a temporary clean coal technology demonstration project is exempt from the requirements of this section. A *temporary clean coal control technology demonstration project*, for the purposes of this section is a clean coal technology demonstration project that is operated for a period of 5 years or less, and which complies with the State implementation plan for the State in which the project is located and other requirements necessary to attain and maintain the national ambient air quality standards during the project and after it is terminated.

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- (l) The reactivation of a very clean coal-fired electric utility steam generating unit is exempt from the requirements of this section.

[40 FR 58419, Dec. 16, 1975, as amended at 43 FR 34347, Aug. 3, 1978; 45 FR 5617, Jan. 23, 1980; 57 FR 32339, July 21, 1992; 65 FR 61750, Oct. 17, 2000]

§ 60.15 Reconstruction.

- (a) An existing facility, upon reconstruction, becomes an affected facility, irrespective of any change in emission rate.
- (b) "Reconstruction" means the replacement of components of an existing facility to such an extent that:
- (1) The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility, and
 - (2) It is technologically and economically feasible to meet the applicable standards set forth in this part.
- (c) "Fixed capital cost" means the capital needed to provide all the depreciable components.
- (d) If an owner or operator of an existing facility proposes to replace components, and the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility, he shall notify the Administrator of the proposed replacements. The notice must be postmarked 60 days (or as soon as practicable) before construction of the replacements is commenced and must include the following information:
- (1) Name and address of the owner or operator.
 - (2) The location of the existing facility.
 - (3) A brief description of the existing facility and the components which are to be replaced.
 - (4) A description of the existing air pollution control equipment and the proposed air pollution control equipment.
 - (5) An estimate of the fixed capital cost of the replacements and of constructing a comparable entirely new facility.
 - (6) The estimated life of the existing facility after the replacements.
 - (7) A discussion of any economic or technical limitations the facility may have in complying with the applicable standards of performance after the proposed replacements.
- (e) The Administrator will determine, within 30 days of the receipt of the notice required by paragraph (d) of this section and any additional information he may reasonably require, whether the proposed replacement constitutes reconstruction.
- (f) The Administrator's determination under paragraph (e) shall be based on:
- (1) The fixed capital cost of the replacements in comparison to the fixed capital cost that would be required to construct a comparable entirely new facility;
 - (2) The estimated life of the facility after the replacements compared to the life of a comparable entirely new facility;
 - (3) The extent to which the components being replaced cause or contribute to the emissions from the facility; and
 - (4) Any economic or technical limitations on compliance with applicable standards of performance which are inherent in the proposed replacements.
- (g) Individual subparts of this part may include specific provisions which refine and delimit the concept of reconstruction set forth in this section.

[40 FR 58420, Dec. 16, 1975]

§ 60.16 Priority list.

A list of prioritized major source categories may be found at the following EPA web site:

<http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&rgn=div6&view=text&node=40:6.0.1.1.1.1&idno=40>

§ 60.17 Incorporations by reference.

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The materials listed below are incorporated by reference in the corresponding sections noted. These incorporations by reference were approved by the Director of the Federal Register on the date listed. These materials are incorporated as they exist on the date of the approval, and a notice of any change in these materials will be published in the Federal Register. The materials are available for purchase at the corresponding address noted below, and all are available for inspection at the Library (C267-01), U.S. EPA, Research Triangle Park, NC or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to:

http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

- (a) The following materials are available for purchase from at least one of the following addresses: American Society for Testing and Materials (ASTM), 100 Barr Harbor Drive, Post Office Box C700, West Conshohocken, PA 19428-2959; or ProQuest, 300 North Zeeb Road, Ann Arbor, MI 48106.
- (1) ASTM A99-76, 82 (Reapproved 1987), Standard Specification for Ferromanganese, incorporation by reference (IBR) approved for §60.261.
 - (2) ASTM A100-69, 74, 93, Standard Specification for Ferrosilicon, IBR approved for §60.261.
 - (3) ASTM A101-73, 93, Standard Specification for Ferrochromium, IBR approved for §60.261.
 - (4) ASTM A482-76, 93, Standard Specification for Ferrochromesilicon, IBR approved for §60.261.
 - (5) ASTM A483-64, 74 (Reapproved 1988), Standard Specification for Silicomanganese, IBR approved for §60.261.
 - (6) ASTM A495-76, 94, Standard Specification for Calcium-Silicon and Calcium Manganese-Silicon, IBR approved for §60.261.
 - (7) ASTM D86-78, 82, 90, 93, 95, 96, Distillation of Petroleum Products, IBR approved for §§60.562-2(d), 60.593(d), 60.593a(d), and 60.633(h).
 - (8) ASTM D129-64, 78, 95, 00, Standard Test Method for Sulfur in Petroleum Products (General Bomb Method), IBR approved for §§60.106(j)(2), 60.335(b)(10)(i), and Appendix A: Method 19, 12.5.2.2.3.
 - (9) ASTM D129-00 (Reapproved 2005), Standard Test Method for Sulfur in Petroleum Products (General Bomb Method), IBR approved for §60.4415(a)(1)(i).
 - (10) ASTM D240-76, 92, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter, IBR approved for §§60.46(c), 60.296(b), and Appendix A: Method 19, Section 12.5.2.2.3.
 - (11) ASTM D270-65, 75, Standard Method of Sampling Petroleum and Petroleum Products, IBR approved for Appendix A: Method 19, Section 12.5.2.2.1.
 - (12) ASTM D323-82, 94, Test Method for Vapor Pressure of Petroleum Products (Reid Method), IBR approved for §§60.111(l), 60.111a(g), 60.111b(g), and 60.116b(f)(2)(ii).
 - (13) ASTM D388-77, 90, 91, 95, 98a, 99 (Reapproved 2004)^{e1}, Standard Specification for Classification of Coals by Rank, IBR approved for §§60.24(h)(8), 60.41 of subpart D of this part, 60.45(f)(4)(i), 60.45(f)(4)(ii), 60.45(f)(4)(vi), 60.41Da of subpart Da of this part, 60.41b of subpart Db of this part, 60.41c of subpart Dc of this part, and 60.4102.
 - (14) ASTM D388-77, 90, 91, 95, 98a, Standard Specification for Classification of Coals by Rank, IBR approved for §§60.251(b) and (c) of subpart Y of this part.
 - (15) ASTM D396-78, 89, 90, 92, 96, 98, Standard Specification for Fuel Oils, IBR approved for §§60.41b of subpart Db of this part, 60.41c of subpart Dc of this part, 60.111(b) of subpart K of this part, and 60.111a(b) of subpart Ka of this part.
 - (16) ASTM D975-78, 96, 98a, Standard Specification for Diesel Fuel Oils, IBR approved for §§60.111(b) of subpart K of this part and 60.111a(b) of subpart Ka of this part.
 - (17) ASTM D1072-80, 90 (Reapproved 1994), Standard Test Method for Total Sulfur in Fuel Gases, IBR approved for §60.335(b)(10)(ii).

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- (18) ASTM D1072-90 (Reapproved 1999), Standard Test Method for Total Sulfur in Fuel Gases, IBR approved for §60.4415(a)(1)(ii).
- (19) ASTM D1137-53, 75, Standard Method for Analysis of Natural Gases and Related Types of Gaseous Mixtures by the Mass Spectrometer, IBR approved for §60.45(f)(5)(i).
- (20) ASTM D1193-77, 91, Standard Specification for Reagent Water, IBR approved for Appendix A: Method 5, Section 7.1.3; Method 5E, Section 7.2.1; Method 5F, Section 7.2.1; Method 6, Section 7.1.1; Method 7, Section 7.1.1; Method 7C, Section 7.1.1; Method 7D, Section 7.1.1; Method 10A, Section 7.1.1; Method 11, Section 7.1.3; Method 12, Section 7.1.3; Method 13A, Section 7.1.2; Method 26, Section 7.1.2; Method 26A, Section 7.1.2; and Method 29, Section 7.2.2.
- (21) ASTM D1266-87, 91, 98, Standard Test Method for Sulfur in Petroleum Products (Lamp Method), IBR approved for §§60.106(j)(2) and 60.335(b)(10)(i).
- (22) ASTM D1266-98 (Reapproved 2003)e1, Standard Test Method for Sulfur in Petroleum Products (Lamp Method), IBR approved for §60.4415(a)(1)(i).
- (23) ASTM D1475-60 (Reapproved 1980), 90, Standard Test Method for Density of Paint, Varnish Lacquer, and Related Products, IBR approved for §60.435(d)(1), Appendix A: Method 24, Section 6.1; and Method 24A, Sections 6.5 and 7.1.
- (24) ASTM D1552-83, 95, 01, Standard Test Method for Sulfur in Petroleum Products (High-Temperature Method), IBR approved for §§60.106(j)(2), 60.335(b)(10)(i), and Appendix A: Method 19, Section 12.5.2.2.3.
- (25) ASTM D1552-03, Standard Test Method for Sulfur in Petroleum Products (High-Temperature Method), IBR approved for §60.4415(a)(1)(i).
- (26) ASTM D1826-77, 94, Standard Test Method for Calorific Value of Gases in Natural Gas Range by Continuous Recording Calorimeter, IBR approved for §§60.45(f)(5)(ii), 60.46(c)(2), 60.296(b)(3), and Appendix A: Method 19, Section 12.3.2.4.
- (27) ASTM D1835-87, 91, 97, 03a, Standard Specification for Liquefied Petroleum (LP) Gases, IBR approved for §§60.41Da of subpart Da of this part, 60.41b of subpart Db of this part, and 60.41c of subpart Dc of this part.
- (28) ASTM D1945-64, 76, 91, 96, Standard Method for Analysis of Natural Gas by Gas Chromatography, IBR approved for §60.45(f)(5)(i).
- (29) ASTM D1946-77, 90 (Reapproved 1994), Standard Method for Analysis of Reformed Gas by Gas Chromatography, IBR approved for §§60.18(f)(3), 60.45(f)(5)(i), 60.564(f)(1), 60.614(e)(2)(ii), 60.614(e)(4), 60.664(e)(2)(ii), 60.664(e)(4), 60.704(d)(2)(ii), and 60.704(d)(4).
- (30) ASTM D2013-72, 86, Standard Method of Preparing Coal Samples for Analysis, IBR approved for Appendix A: Method 19, Section 12.5.2.1.3.
- (31) ASTM D2015-77 (Reapproved 1978), 96, Standard Test Method for Gross Calorific Value of Solid Fuel by the Adiabatic Bomb Calorimeter, IBR approved for §60.45(f)(5)(ii), 60.46(c)(2), and Appendix A: Method 19, Section 12.5.2.1.3.
- (32) ASTM D2016-74, 83, Standard Test Methods for Moisture Content of Wood, IBR approved for Appendix A: Method 28, Section 16.1.1.
- (33) ASTM D2234-76, 96, 97b, 98, Standard Methods for Collection of a Gross Sample of Coal, IBR approved for Appendix A: Method 19, Section 12.5.2.1.1.
- (34) ASTM D2369-81, 87, 90, 92, 93, 95, Standard Test Method for Volatile Content of Coatings, IBR approved for Appendix A: Method 24, Section 6.2.
- (35) ASTM D2382-76, 88, Heat of Combustion of Hydrocarbon Fuels by Bomb Calorimeter (High-Precision Method), IBR approved for §§60.18(f)(3), 60.485(g)(6), 60.485a(g)(6), 60.564(f)(3), 60.614(e)(4), 60.664(e)(4), and 60.704(d)(4).

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- (36) ASTM D2504–67, 77, 88 (Reapproved 1993), Noncondensable Gases in C3 and Lighter Hydrocarbon Products by Gas Chromatography, IBR approved for §§60.485(g)(5) and 60.485a(g)(5).
- (37) ASTM D2584–68 (Reapproved 1985), 94, Standard Test Method for Ignition Loss of Cured Reinforced Resins, IBR approved for §60.685(c)(3)(i).
- (38) ASTM D2597–94 (Reapproved 1999), Standard Test Method for Analysis of Demethanized Hydrocarbon Liquid Mixtures Containing Nitrogen and Carbon Dioxide by Gas Chromatography, IBR approved for §60.335(b)(9)(i).
- (39) ASTM D2622–87, 94, 98, Standard Test Method for Sulfur in Petroleum Products by Wavelength Dispersive X-Ray Fluorescence Spectrometry, IBR approved for §§60.106(j)(2) and 60.335(b)(10)(i).
- (40) ASTM D2622–05, Standard Test Method for Sulfur in Petroleum Products by Wavelength Dispersive X-Ray Fluorescence Spectrometry, IBR approved for §60.4415(a)(1)(i).
- (41) ASTM D2879–83, 96, 97, Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope, IBR approved for §§60.111b(f)(3), 60.116b(e)(3)(ii), 60.116b(f)(2)(i), 60.485(e)(1), and 60.485a(e)(1).
- (42) ASTM D2880–78, 96, Standard Specification for Gas Turbine Fuel Oils, IBR approved for §§60.111(b), 60.111a(b), and 60.335(d).
- (43) ASTM D2908–74, 91, Standard Practice for Measuring Volatile Organic Matter in Water by Aqueous-Injection Gas Chromatography, IBR approved for §60.564(j).
- (44) ASTM D2986–71, 78, 95a, Standard Method for Evaluation of Air, Assay Media by the Monodisperse DOP (Diocetyl Phthalate) Smoke Test, IBR approved for Appendix A: Method 5, Section 7.1.1; Method 12, Section 7.1.1; and Method 13A, Section 7.1.1.2.
- (45) ASTM D3173–73, 87, Standard Test Method for Moisture in the Analysis Sample of Coal and Coke, IBR approved for Appendix A: Method 19, Section 12.5.2.1.3.
- (46) ASTM D3176–74, 89, Standard Method for Ultimate Analysis of Coal and Coke, IBR approved for §60.45(f)(5)(i) and Appendix A: Method 19, Section 12.3.2.3.
- (47) ASTM D3177–75, 89, Standard Test Method for Total Sulfur in the Analysis Sample of Coal and Coke, IBR approved for Appendix A: Method 19, Section 12.5.2.1.3.
- (48) ASTM D3178–73 (Reapproved 1979), 89, Standard Test Methods for Carbon and Hydrogen in the Analysis Sample of Coal and Coke, IBR approved for §60.45(f)(5)(i).
- (49) ASTM D3246–81, 92, 96, Standard Test Method for Sulfur in Petroleum Gas by Oxidative Microcoulometry, IBR approved for §60.335(b)(10)(ii).
- (50) ASTM D3246–05, Standard Test Method for Sulfur in Petroleum Gas by Oxidative Microcoulometry, IBR approved for §60.4415(a)(1)(ii).
- (51) ASTM D3270–73T, 80, 91, 95, Standard Test Methods for Analysis for Fluoride Content of the Atmosphere and Plant Tissues (Semiautomated Method), IBR approved for Appendix A: Method 13A, Section 16.1.
- (52) ASTM D3286–85, 96, Standard Test Method for Gross Calorific Value of Coal and Coke by the Isoperibol Bomb Calorimeter, IBR approved for Appendix A: Method 19, Section 12.5.2.1.3.
- (53) ASTM D3370–76, 95a, Standard Practices for Sampling Water, IBR approved for §60.564(j).
- (54) ASTM D3792–79, 91, Standard Test Method for Water Content of Water-Reducible Paints by Direct Injection into a Gas Chromatograph, IBR approved for Appendix A: Method 24, Section 6.3.
- (55) ASTM D4017–81, 90, 96a, Standard Test Method for Water in Paints and Paint Materials by the Karl Fischer Titration Method, IBR approved for Appendix A: Method 24, Section 6.4.
- (56) ASTM D4057–81, 95, Standard Practice for Manual Sampling of Petroleum and Petroleum Products, IBR approved for Appendix A: Method 19, Section 12.5.2.2.3.

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- (57) ASTM D4057-95 (Reapproved 2000), Standard Practice for Manual Sampling of Petroleum and Petroleum Products, IBR approved for §60.4415(a)(1).
- (58) ASTM D4084-82, 94, Standard Test Method for Analysis of Hydrogen Sulfide in Gaseous Fuels (Lead Acetate Reaction Rate Method), IBR approved for §60.334(h)(1).
- (59) ASTM D4084-05, Standard Test Method for Analysis of Hydrogen Sulfide in Gaseous Fuels (Lead Acetate Reaction Rate Method), IBR approved for §§60.4360 and 60.4415(a)(1)(ii).
- (60) ASTM D4177-95, Standard Practice for Automatic Sampling of Petroleum and Petroleum Products, IBR approved for Appendix A: Method 19, Section 12.5.2.2.1.
- (61) ASTM D4177-95 (Reapproved 2000), Standard Practice for Automatic Sampling of Petroleum and Petroleum Products, IBR approved for §60.4415(a)(1).
- (62) ASTM D4239-85, 94, 97, Standard Test Methods for Sulfur in the Analysis Sample of Coal and Coke Using High Temperature Tube Furnace Combustion Methods, IBR approved for Appendix A: Method 19, Section 12.5.2.1.3.
- (63) ASTM D4294-02, Standard Test Method for Sulfur in Petroleum and Petroleum Products by Energy-Dispersive X-Ray Fluorescence Spectrometry, IBR approved for §60.335(b)(10)(i).
- (64) ASTM D4294-03, Standard Test Method for Sulfur in Petroleum and Petroleum Products by Energy-Dispersive X-Ray Fluorescence Spectrometry, IBR approved for §60.4415(a)(1)(i).
- (65) ASTM D4442-84, 92, Standard Test Methods for Direct Moisture Content Measurement in Wood and Wood-base Materials, IBR approved for Appendix A: Method 28, Section 16.1.1.
- (66) ASTM D4444-92, Standard Test Methods for Use and Calibration of Hand-Held Moisture Meters, IBR approved for Appendix A: Method 28, Section 16.1.1.
- (67) ASTM D4457-85 (Reapproved 1991), Test Method for Determination of Dichloromethane and 1, 1, 1-Trichloroethane in Paints and Coatings by Direct Injection into a Gas Chromatograph, IBR approved for Appendix A: Method 24, Section 6.5.
- (68) ASTM D4468-85 (Reapproved 2000), Standard Test Method for Total Sulfur in Gaseous Fuels by Hydrogenolysis and Rateometric Colorimetry, IBR approved for §§60.335(b)(10)(ii) and 60.4415(a)(1)(ii).
- (69) ASTM D4629-02, Standard Test Method for Trace Nitrogen in Liquid Petroleum Hydrocarbons by Syringe/Inlet Oxidative Combustion and Chemiluminescence Detection, IBR approved for §§60.49b(e) and 60.335(b)(9)(i).
- (70) ASTM D4809-95, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter (Precision Method), IBR approved for §§60.18(f)(3), 60.485(g)(6), 60.485a(g)(6), 60.564(f)(3), 60.614(d)(4), 60.664(e)(4), and 60.704(d)(4).
- (71) ASTM D4810-88 (Reapproved 1999), Standard Test Method for Hydrogen Sulfide in Natural Gas Using Length of Stain Detector Tubes, IBR approved for §§60.4360 and 60.4415(a)(1)(ii).
- (72) ASTM D5287-97 (Reapproved 2002), Standard Practice for Automatic Sampling of Gaseous Fuels, IBR approved for §60.4415(a)(1).
- (73) ASTM D5403-93, Standard Test Methods for Volatile Content of Radiation Curable Materials, IBR approved for Appendix A: Method 24, Section 6.6.
- (74) ASTM D5453-00, Standard Test Method for Determination of Total Sulfur in Light Hydrocarbons, Motor Fuels and Oils by Ultraviolet Fluorescence, IBR approved for §60.335(b)(10)(i).
- (75) ASTM D5453-05, Standard Test Method for Determination of Total Sulfur in Light Hydrocarbons, Motor Fuels and Oils by Ultraviolet Fluorescence, IBR approved for §60.4415(a)(1)(i).
- (76) ASTM D5504-01, Standard Test Method for Determination of Sulfur Compounds in Natural Gas and Gaseous Fuels by Gas Chromatography and Chemiluminescence, IBR approved for §§60.334(h)(1) and 60.4360.

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- (77) ASTM D5762–02, Standard Test Method for Nitrogen in Petroleum and Petroleum Products by Boat-Inlet Chemiluminescence, IBR approved for §60.335(b)(9)(i).
- (78) ASTM D5865–98, Standard Test Method for Gross Calorific Value of Coal and Coke, IBR approved for §60.45(f)(5)(ii), 60.46(c)(2), and Appendix A: Method 19, Section 12.5.2.1.3.
- (79) ASTM D6216–98, Standard Practice for Opacity Monitor Manufacturers to Certify Conformance with Design and Performance Specifications, IBR approved for Appendix B, Performance Specification 1.
- (80) ASTM D6228–98, Standard Test Method for Determination of Sulfur Compounds in Natural Gas and Gaseous Fuels by Gas Chromatography and Flame Photometric Detection, IBR approved for §60.334(h)(1).
- (81) ASTM D6228–98 (Reapproved 2003), Standard Test Method for Determination of Sulfur Compounds in Natural Gas and Gaseous Fuels by Gas Chromatography and Flame Photometric Detection, IBR approved for §§60.4360 and 60.4415.
- (82) ASTM D6348–03, Standard Test Method for Determination of Gaseous Compounds by Extractive Direct Interface Fourier Transform Infrared (FTIR) Spectroscopy, IBR approved for table 7 of Subpart IIII of this part and table 2 of subpart JJJJ of this part.
- (83) ASTM D6366–99, Standard Test Method for Total Trace Nitrogen and Its Derivatives in Liquid Aromatic Hydrocarbons by Oxidative Combustion and Electrochemical Detection, IBR approved for §60.335(b)(9)(i).
- (84) ASTM D6420–99 (Reapproved 2004) Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry, IBR approved for table 2 of subpart JJJJ of this part.
- (85) ASTM D6522–00, Standard Test Method for Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Concentrations in Emissions from Natural Gas-Fired Reciprocating Engines, Combustion Turbines, Boilers, and Process Heaters Using Portable Analyzers, IBR approved for §60.335(a).
- (86) ASTM D6522–00 (Reapproved 2005), Standard Test Method for Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Concentrations in Emissions from Natural Gas-Fired Reciprocating Engines, Combustion Turbines, Boilers, and Process Heaters Using Portable Analyzers, IBR approved for table 2 of subpart JJJJ of this part.
- (87) ASTM D6667–01, Standard Test Method for Determination of Total Volatile Sulfur in Gaseous Hydrocarbons and Liquefied Petroleum Gases by Ultraviolet Fluorescence, IBR approved for §60.335(b)(10)(ii).
- (88) ASTM D6667–04, Standard Test Method for Determination of Total Volatile Sulfur in Gaseous Hydrocarbons and Liquefied Petroleum Gases by Ultraviolet Fluorescence, IBR approved for §60.4415(a)(1)(ii).
- (89) ASTM D6784–02, Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method), IBR approved for Appendix B to part 60, Performance Specification 12A, Section 8.6.2.
- (90) ASTM E168–67, 77, 92, General Techniques of Infrared Quantitative Analysis, IBR approved for §§60.485a(d)(1), 60.593(b)(2), 60.593a(b)(2), and 60.632(f).
- (91) ASTM E169–63, 77, 93, General Techniques of Ultraviolet Quantitative Analysis, IBR approved for §§60.485a(d)(1), 60.593(b)(2), 60.593a(b)(2), and 60.632(f).
- (92) ASTM E260–73, 91, 96, General Gas Chromatography Procedures, IBR approved for §§60.485a(d)(1), 60.593(b)(2), 60.593a(b)(2), and 60.632(f).
- (b) The following material is available for purchase from the Association of Official Analytical Chemists, 1111 North 19th Street, Suite 210, Arlington, VA 22209.
 - (1) AOAC Method 9, Official Methods of Analysis of the Association of Official Analytical Chemists, 11th edition, 1970, pp. 11–12, IBR approved January 27, 1983 for §§60.204(b)(3), 60.214(b)(3), 60.224(b)(3), 60.234(b)(3).
- (c) The following material is available for purchase from the American Petroleum Institute, 1220 L Street NW., Washington, DC 20005.

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- (1) API Publication 2517, Evaporation Loss from External Floating Roof Tanks, Second Edition, February 1980, IBR approved January 27, 1983, for §§60.111(i), 60.111a(f), 60.111a(f)(1) and 60.116b(e)(2)(i).
- (d) The following material is available for purchase from the Technical Association of the Pulp and Paper Industry (TAPPI), Dunwoody Park, Atlanta, GA 30341.
- (1) TAPPI Method T624 os-68, IBR approved January 27, 1983 for §60.285(d)(3).
- (e) The following material is available for purchase from the Water Pollution Control Federation (WPCF), 2626 Pennsylvania Avenue NW., Washington, DC 20037.
- (1) Method 209A, Total Residue Dried at 103–105 °C, in Standard Methods for the Examination of Water and Wastewater, 15th Edition, 1980, IBR approved February 25, 1985 for §60.683(b).
- (f) The following material is available for purchase from the following address: Underwriter's Laboratories, Inc. (UL), 333 Pfingsten Road, Northbrook, IL 60062.
- (1) UL 103, Sixth Edition revised as of September 3, 1986, Standard for Chimneys, Factory-built, Residential Type and Building Heating Appliance.
- (g) The following material is available for purchase from the following address: West Coast Lumber Inspection Bureau, 6980 SW. Barnes Road, Portland, OR 97223.
- (1) West Coast Lumber Standard Grading Rules No. 16, pages 5–21 and 90 and 91, September 3, 1970, revised 1984.
- (h) The following material is available for purchase from the American Society of Mechanical Engineers (ASME), Three Park Avenue, New York, NY 10016–5990.
- (1) ASME QRO–1–1994, Standard for the Qualification and Certification of Resource Recovery Facility Operators, IBR approved for §§60.56a, 60.54b(a), 60.54b(b), 60.1185(a), 60.1185(c)(2), 60.1675(a), and 60.1675(c)(2).
- (2) ASME PTC 4.1–1964 (Reaffirmed 1991), Power Test Codes: Test Code for Steam Generating Units (with 1968 and 1969 Addenda), IBR approved for §§60.46b of subpart Db of this part, 60.58a(h)(6)(ii), 60.58b(i)(6)(ii), 60.1320(a)(3) and 60.1810(a)(3).
- (3) ASME Interim Supplement 19.5 on Instruments and Apparatus: Application, Part II of Fluid Meters, 6th Edition (1971), IBR approved for §§60.58a(h)(6)(ii), 60.58b(i)(6)(ii), 60.1320(a)(4), and 60.1810(a)(4).
- (4) ANSI/ASME PTC 19.10–1981, Flue and Exhaust Gas Analyses [Part 10, Instruments and Apparatus], IBR approved for Tables 1 and 3 of subpart EEEE, Tables 2 and 4 of subpart FFFF, Table 2 of subpart JJJJ, and §§60.4415(a)(2) and 60.4415(a)(3) of subpart KKKK of this part.
- (i) Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,” EPA Publication SW–846 Third Edition (November 1986), as amended by Updates I (July 1992), II (September 1994), IIA (August, 1993), IIB (January 1995), and III (December 1996). This document may be obtained from the U.S. EPA, Office of Solid Waste and Emergency Response, Waste Characterization Branch, Washington, DC 20460, and is incorporated by reference for appendix A to part 60, Method 29, Sections 7.5.34; 9.2.1; 9.2.3; 10.2; 10.3; 11.1.1; 11.1.3; 13.2.1; 13.2.2; 13.3.1; and Table 29–3.
- (j) “Standard Methods for the Examination of Water and Wastewater,” 16th edition, 1985. Method 303F: “Determination of Mercury by the Cold Vapor Technique.” This document may be obtained from the American Public Health Association, 1015 18th Street, NW., Washington, DC 20036, and is incorporated by reference for appendix A to part 60, Method 29, Sections 9.2.3; 10.3; and 11.1.3.
- (k) This material is available for purchase from the American Hospital Association (AHA) Service, Inc., Post Office Box 92683, Chicago, Illinois 60675–2683. You may inspect a copy at EPA's Air and Radiation Docket and Information Center (Docket A–91–61, Item IV–J–124), Room M–1500, 1200 Pennsylvania Ave., NW., Washington, DC.
- (1) An Ounce of Prevention: Waste Reduction Strategies for Health Care Facilities. American Society for Health Care Environmental Services of the American Hospital Association. Chicago, Illinois. 1993. AHA Catalog No. 057007. ISBN 0–87258–673–5. IBR approved for §60.35e and §60.55c.

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- (l) This material is available for purchase from the National Technical Information Services, 5285 Port Royal Road, Springfield, Virginia 22161. You may inspect a copy at EPA's Air and Radiation Docket and Information Center (Docket A-91-61, Item IV-J-125), Room M-1500, 1200 Pennsylvania Ave., NW., Washington, DC.
- (1) OMB Bulletin No. 93-17: Revised Statistical Definitions for Metropolitan Areas. Office of Management and Budget, June 30, 1993. NTIS No. PB 93-192-664. IBR approved for §60.31e.
- (m) This material is available for purchase from at least one of the following addresses: The Gas Processors Association, 6526 East 60th Street, Tulsa, OK, 74145; or Information Handling Services, 15 Inverness Way East, PO Box 1154, Englewood, CO 80150-1154. You may inspect a copy at EPA's Air and Radiation Docket and Information Center, Room B108, 1301 Constitution Ave., NW., Washington, DC 20460.
- (1) Gas Processors Association Method 2377-86, Test for Hydrogen Sulfide and Carbon Dioxide in Natural Gas Using Length of Stain Tubes, IBR approved for §§60.334(h)(1), 60.4360, and 60.4415(a)(1)(ii).
- (2) [Reserved]
- (n) This material is available for purchase from IHS Inc., 15 Inverness Way East, Englewood, CO 80112.
- (1) International Organization for Standards 8178-4: 1996(E), Reciprocating Internal Combustion Engines—Exhaust Emission Measurement—Part 4: Test Cycles for Different Engine Applications, IBR approved for §60.4241(b).
- (2) [Reserved]

[48 FR 3735, Jan. 27, 1983]

Editorial Note: For Federal Register citations affecting §60.17, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and on GPO Access.

§ 60.18 General control device requirements.

- (a) *Introduction.* This section contains requirements for control devices used to comply with applicable subparts of parts 60 and 61. The requirements are placed here for administrative convenience and only apply to facilities covered by subparts referring to this section.
- (b) *Flares.* Paragraphs (c) through (f) apply to flares.
- (c)
- (1) Flares shall be designed for and operated with no visible emissions as determined by the methods specified in paragraph (f), except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.
- (2) Flares shall be operated with a flame present at all times, as determined by the methods specified in paragraph (f).
- (3) An owner/operator has the choice of adhering to either the heat content specifications in paragraph (c)(3)(ii) of this section and the maximum tip velocity specifications in paragraph (c)(4) of this section, or adhering to the requirements in paragraph (c)(3)(i) of this section.
- (i)
- (A) Flares shall be used that have a diameter of 3 inches or greater, are nonassisted, have a hydrogen content of 8.0 percent (by volume), or greater, and are designed for and operated with an exit velocity less than 37.2 m/sec (122 ft/sec) and less than the velocity, $V_{\max}$, as determined by the following equation:

$$V_{\max} = (X_{H_2} - K_1) * K_2$$

Where:

$V_{\max}$ = Maximum permitted velocity, m/sec.

K_1 = Constant, 6.0 volume-percent hydrogen.

K_2 = Constant, 3.9(m/sec)/volume-percent hydrogen.

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X_{H_2} = The volume-percent of hydrogen, on a wet basis, as calculated by using the American Society for Testing and Materials (ASTM) Method D1946–77. (Incorporated by reference as specified in §60.17).

(B) The actual exit velocity of a flare shall be determined by the method specified in paragraph (f)(4) of this section.

- (ii) Flares shall be used only with the net heating value of the gas being combusted being 11.2 MJ/scm (300 Btu/scf) or greater if the flare is steam-assisted or air-assisted; or with the net heating value of the gas being combusted being 7.45 MJ/scm (200 Btu/scf) or greater if the flare is nonassisted. The net heating value of the gas being combusted shall be determined by the methods specified in paragraph (f)(3) of this section.

(4)

- (i) Steam-assisted and nonassisted flares shall be designed for and operated with an exit velocity, as determined by the methods specified in paragraph (f)(4) of this section, less than 18.3 m/sec (60 ft/sec), except as provided in paragraphs (c)(4) (ii) and (iii) of this section.

- (ii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the methods specified in paragraph (f)(4), equal to or greater than 18.3 m/sec (60 ft/sec) but less than 122 m/sec (400 ft/sec) are allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf).

- (iii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the methods specified in paragraph (f)(4), less than the velocity, V_{max} , as determined by the method specified in paragraph (f)(5), and less than 122 m/sec (400 ft/sec) are allowed.

- (5) Air-assisted flares shall be designed and operated with an exit velocity less than the velocity, V_{max} , as determined by the method specified in paragraph (f)(6).

- (6) Flares used to comply with this section shall be steam-assisted, air-assisted, or nonassisted.

- (d) Owners or operators of flares used to comply with the provisions of this subpart shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. Applicable subparts will provide provisions stating how owners or operators of flares shall monitor these control devices.

- (e) Flares used to comply with provisions of this subpart shall be operated at all times when emissions may be vented to them.

(f)

- (1) Method 22 of appendix A to this part shall be used to determine the compliance of flares with the visible emission provisions of this subpart. The observation period is 2 hours and shall be used according to Method 22.

- (2) The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame.

- (3) The net heating value of the gas being combusted in a flare shall be calculated using the following equation:

$$H_T = K \sum_{i=1}^n C_i H_i$$

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where:

H_T = Net heating value of the sample, MJ/scm; where the net enthalpy per mole of off gas is based on combustion at 25 °C and 760 mm Hg, but the standard temperature for determining the volume corresponding to one mole is 20 °C;

$$K = \frac{\text{Constant}}{1.740 \times 10^{-7}} \left(\frac{1}{\text{ppm}} \right) \left(\frac{\text{g mole}}{\text{scm}} \right) \left(\frac{\text{MJ}}{\text{kcal}} \right)$$

where the standard temperature for $\left(\frac{\text{g mole}}{\text{scm}} \right)$ is 20°C;

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C_i = Concentration of sample component i in ppm on a wet basis, as measured for organics by Reference Method 18 and measured for hydrogen and carbon monoxide by ASTM D1946-77 or 90 (Reapproved 1994) (Incorporated by reference as specified in §60.17); and

H_i = Net heat of combustion of sample component i , kcal/g mole at 25 °C and 760 mm Hg. The heats of combustion may be determined using ASTM D2382-76 or 88 or D4809-95 (incorporated by reference as specified in §60.17) if published values are not available or cannot be calculated.

(4) The actual exit velocity of a flare shall be determined by dividing the volumetric flowrate (in units of standard temperature and pressure), as determined by Reference Methods 2, 2A, 2C, or 2D as appropriate; by the unobstructed (free) cross sectional area of the flare tip.

(5) The maximum permitted velocity, V_{max} , for flares complying with paragraph (c)(4)(iii) shall be determined by the following equation.

$$\text{Log}_{10}(V_{max}) = (H_T + 28.8) / 31.7$$

V_{max} = Maximum permitted velocity, M/sec

28.8 = Constant

31.7 = Constant

H_T = The net heating value as determined in paragraph (f)(3).

(6) The maximum permitted velocity, V_{max} , for air-assisted flares shall be determined by the following equation.

$$V_{max} = 8.706 + 0.7084 (H_T)$$

V_{max} = Maximum permitted velocity, m/sec

8.706 = Constant

0.7084 = Constant

H_T = The net heating value as determined in paragraph (f)(3).

[51 FR 2701, Jan. 21, 1986, as amended at 63 FR 24444, May 4, 1998; 65 FR 61752, Oct. 17, 2000]

§ 60.19 General notification and reporting requirements.

- (a) For the purposes of this part, time periods specified in days shall be measured in calendar days, even if the word "calendar" is absent, unless otherwise specified in an applicable requirement.
- (b) For the purposes of this part, if an explicit postmark deadline is not specified in an applicable requirement for the submittal of a notification, application, report, or other written communication to the Administrator, the owner or operator shall postmark the submittal on or before the number of days specified in the applicable requirement. For example, if a notification must be submitted 15 days before a particular event is scheduled to take place, the notification shall be postmarked on or before 15 days preceding the event; likewise, if a notification must be submitted 15 days after a particular event takes place, the notification shall be delivered or postmarked on or before 15 days following the end of the event. The use of reliable non-Government mail carriers that provide indications of verifiable delivery of information required to be submitted to the Administrator, similar to the postmark provided by the U.S. Postal Service, or alternative means of delivery, including the use of electronic media, agreed to by the permitting authority, is acceptable.
- (c) Notwithstanding time periods or postmark deadlines specified in this part for the submittal of information to the Administrator by an owner or operator, or the review of such information by the Administrator, such time periods or deadlines may be changed by mutual agreement between the owner or operator and the Administrator. Procedures governing the implementation of this provision are specified in paragraph (f) of this section.
- (d) If an owner or operator of an affected facility in a State with delegated authority is required to submit periodic reports under this part to the State, and if the State has an established timeline for the submission of periodic reports that is

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consistent with the reporting frequency(ies) specified for such facility under this part, the owner or operator may change the dates by which periodic reports under this part shall be submitted (without changing the frequency of reporting) to be consistent with the State's schedule by mutual agreement between the owner or operator and the State. The allowance in the previous sentence applies in each State beginning 1 year after the affected facility is required to be in compliance with the applicable subpart in this part. Procedures governing the implementation of this provision are specified in paragraph (f) of this section.

- (e) If an owner or operator supervises one or more stationary sources affected by standards set under this part and standards set under part 61, part 63, or both such parts of this chapter, he/she may arrange by mutual agreement between the owner or operator and the Administrator (or the State with an approved permit program) a common schedule on which periodic reports required by each applicable standard shall be submitted throughout the year. The allowance in the previous sentence applies in each State beginning 1 year after the stationary source is required to be in compliance with the applicable subpart in this part, or 1 year after the stationary source is required to be in compliance with the applicable 40 CFR part 61 or part 63 of this chapter standard, whichever is latest. Procedures governing the implementation of this provision are specified in paragraph (f) of this section.

(f)

(1)

- (i) Until an adjustment of a time period or postmark deadline has been approved by the Administrator under paragraphs (f)(2) and (f)(3) of this section, the owner or operator of an affected facility remains strictly subject to the requirements of this part.
- (ii) An owner or operator shall request the adjustment provided for in paragraphs (f)(2) and (f)(3) of this section each time he or she wishes to change an applicable time period or postmark deadline specified in this part.
- (2) Notwithstanding time periods or postmark deadlines specified in this part for the submittal of information to the Administrator by an owner or operator, or the review of such information by the Administrator, such time periods or deadlines may be changed by mutual agreement between the owner or operator and the Administrator. An owner or operator who wishes to request a change in a time period or postmark deadline for a particular requirement shall request the adjustment in writing as soon as practicable before the subject activity is required to take place. The owner or operator shall include in the request whatever information he or she considers useful to convince the Administrator that an adjustment is warranted.
- (3) If, in the Administrator's judgment, an owner or operator's request for an adjustment to a particular time period or postmark deadline is warranted, the Administrator will approve the adjustment. The Administrator will notify the owner or operator in writing of approval or disapproval of the request for an adjustment within 15 calendar days of receiving sufficient information to evaluate the request.
- (4) If the Administrator is unable to meet a specified deadline, he or she will notify the owner or operator of any significant delay and inform the owner or operator of the amended schedule.

[59 FR 12428, Mar. 16, 1994, as amended at 64 FR 7463, Feb. 12, 1998]

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E.U. ID No.	Brief Description
-003	102 Million Btu per Hour Auxiliary Boiler

Federal Regulations Adopted by Reference

In accordance with Rule 62-204.800, F.A.C., the following federal regulation in Title 40 of the Code of Federal Regulations (CFR) was adopted by reference. The original federal rule numbering has been retained.

Federal Revision Date: June 13, 2007

State Rule Effective Date: October 1, 2007

Standardized Conditions Revision Date: October 19, 2007

40 CFR Part 60, Subpart Db - Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units

Source: 72 FR 32742, June 13, 2007, unless otherwise noted.

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- § 60.40b Applicability and delegation of authority.
- § 60.41b Definitions.
- § 60.42b Standard for sulfur dioxide (SO₂).
- § 60.43b Standard for particulate matter (PM).
- § 60.44b Standard for nitrogen oxides (NO_x).
- § 60.45b Compliance and performance test methods and procedures for sulfur dioxide.
- § 60.46b Compliance and performance test methods and procedures for particulate matter and nitrogen oxides.
- § 60.47b Emission monitoring for sulfur dioxide.
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- § 60.49b Reporting and recordkeeping requirements.

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§ 60.40b Applicability and delegation of authority.

- (a) The affected facility to which this subpart applies is each steam generating unit that commences construction, modification, or reconstruction after June 19, 1984, and that has a heat input capacity from fuels combusted in the steam generating unit of greater than 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/hr)).
- (b) Any affected facility meeting the applicability requirements under paragraph (a) of this section and commencing construction, modification, or reconstruction after June 19, 1984, but on or before June 19, 1986, is subject to the following standards:
 - (1) Coal-fired affected facilities having a heat input capacity between 29 and 73 MW (100 and 250 MMBtu/hr), inclusive, are subject to the particulate matter (PM) and nitrogen oxides (NO_x) standards under this subpart.
 - (2) Coal-fired affected facilities having a heat input capacity greater than 73 MW (250 MMBtu/hr) and meeting the applicability requirements under subpart D (Standards of performance for fossil-fuel-fired steam generators; §60.40) are subject to the PM and NO_x standards under this subpart and to the sulfur dioxide (SO₂) standards under subpart D (§60.43).
 - (3) Oil-fired affected facilities having a heat input capacity between 29 and 73 MW (100 and 250 MMBtu/hr), inclusive, are subject to the NO_x standards under this subpart.
 - (4) Oil-fired affected facilities having a heat input capacity greater than 73 MW (250 MMBtu/hr) and meeting the applicability requirements under subpart D (Standards of performance for fossil-fuel-fired steam generators; §60.40) are also subject to the NO_x standards under this subpart and the PM and SO₂ standards under subpart D (§60.42 and §60.43).

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- (c) Affected facilities that also meet the applicability requirements under subpart J (Standards of performance for petroleum refineries; §60.104) are subject to the PM and NO_x standards under this subpart and the SO₂ standards under subpart J (§60.104).
- (d) Affected facilities that also meet the applicability requirements under subpart E (Standards of performance for incinerators; §60.50) are subject to the NO_x and PM standards under this subpart.
- (e) Steam generating units meeting the applicability requirements under subpart Da (Standards of performance for electric utility steam generating units; §60.40Da) are not subject to this subpart.
- (f) Any change to an existing steam generating unit for the sole purpose of combusting gases containing total reduced sulfur (TRS) as defined under §60.281 is not considered a modification under §60.14 and the steam generating unit is not subject to this subpart.
- (g) In delegating implementation and enforcement authority to a State under section 111(c) of the Clean Air Act, the following authorities shall be retained by the Administrator and not transferred to a State.
 - (1) Section 60.44b(f).
 - (2) Section 60.44b(g).
 - (3) Section 60.49b(a)(4).
- (h) Any affected facility that meets the applicability requirements and is subject to subpart Ea, subpart Eb, or subpart AAAA of this part is not covered by this subpart.
- (i) Heat recovery steam generators that are associated with combined cycle gas turbines and that meet the applicability requirements of subpart GG or KKKK of this part are not subject to this subpart. This subpart will continue to apply to all other heat recovery steam generators that are capable of combusting more than 29 MW (100 MMBtu/hr) heat input of fossil fuel. If the heat recovery steam generator is subject to this subpart, only emissions resulting from combustion of fuels in the steam generating unit are subject to this subpart. (The gas turbine emissions are subject to subpart GG or KKKK, as applicable, of this part.)
- (j) Any affected facility meeting the applicability requirements under paragraph (a) of this section and commencing construction, modification, or reconstruction after June 19, 1986 is not subject to subpart D (Standards of Performance for Fossil-Fuel-Fired Steam Generators, §60.40).
- (k) Any affected facility that meets the applicability requirements and is subject to an EPA approved State or Federal section 111(d)/129 plan implementing subpart Cb or subpart BBBB of this part is not covered by this subpart.

§ 60.41b Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Clean Air Act and in subpart A of this part.

Annual capacity factor means the ratio between the actual heat input to a steam generating unit from the fuels listed in §60.42b(a), §60.43b(a), or §60.44b(a), as applicable, during a calendar year and the potential heat input to the steam generating unit had it been operated for 8,760 hours during a calendar year at the maximum steady state design heat input capacity. In the case of steam generating units that are rented or leased, the actual heat input shall be determined based on the combined heat input from all operations of the affected facility in a calendar year.

Byproduct/waste means any liquid or gaseous substance produced at chemical manufacturing plants, petroleum refineries, or pulp and paper mills (except natural gas, distillate oil, or residual oil) and combusted in a steam generating unit for heat recovery or for disposal. Gaseous substances with carbon dioxide (CO₂) levels greater than 50 percent or carbon monoxide levels greater than 10 percent are not byproduct/waste for the purpose of this subpart.

Chemical manufacturing plants mean industrial plants that are classified by the Department of Commerce under Standard Industrial Classification (SIC) Code 28.

Coal means all solid fuels classified as anthracite, bituminous, subbituminous, or lignite by the American Society of Testing and Materials in ASTM D388 (incorporated by reference, see §60.17), coal refuse, and petroleum coke. Coal-derived

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synthetic fuels, including but not limited to solvent refined coal, gasified coal, coal-oil mixtures, coke oven gas, and coal-water mixtures, are also included in this definition for the purposes of this subpart.

Coal refuse means any byproduct of coal mining or coal cleaning operations with an ash content greater than 50 percent, by weight, and a heating value less than 13,900 kJ/kg (6,000 Btu/lb) on a dry basis.

Cogeneration, also known as combined heat and power, means a facility that simultaneously produces both electric (or mechanical) and useful thermal energy from the same primary energy source.

Coke oven gas means the volatile constituents generated in the gaseous exhaust during the carbonization of bituminous coal to form coke.

Combined cycle system means a system in which a separate source, such as a gas turbine, internal combustion engine, kiln, etc., provides exhaust gas to a steam generating unit.

Conventional technology means wet flue gas desulfurization (FGD) technology, dry FGD technology, atmospheric fluidized bed combustion technology, and oil hydrosulfurization technology.

Distillate oil means fuel oils that contain 0.05 weight percent nitrogen or less and comply with the specifications for fuel oil numbers 1 and 2, as defined by the American Society of Testing and Materials in ASTM D396 (incorporated by reference, see §60.17).

Dry flue gas desulfurization technology means a SO₂ control system that is located downstream of the steam generating unit and removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gases with an alkaline reagent and water, whether introduced separately or as a premixed slurry or solution and forming a dry powder material. This definition includes devices where the dry powder material is subsequently converted to another form. Alkaline slurries or solutions used in dry flue gas desulfurization technology include but are not limited to lime and sodium.

Duct burner means a device that combusts fuel and that is placed in the exhaust duct from another source, such as a stationary gas turbine, internal combustion engine, kiln, etc., to allow the firing of additional fuel to heat the exhaust gases before the exhaust gases enter a steam generating unit.

Emerging technology means any SO₂ control system that is not defined as a conventional technology under this section, and for which the owner or operator of the facility has applied to the Administrator and received approval to operate as an emerging technology under §60.49b(a)(4).

Federally enforceable means all limitations and conditions that are enforceable by the Administrator, including the requirements of 40 CFR parts 60 and 61, requirements within any applicable State Implementation Plan, and any permit requirements established under 40 CFR 52.21 or under 40 CFR 51.18 and 51.24.

Fluidized bed combustion technology means combustion of fuel in a bed or series of beds (including but not limited to bubbling bed units and circulating bed units) of limestone aggregate (or other sorbent materials) in which these materials are forced upward by the flow of combustion air and the gaseous products of combustion.

Fuel pretreatment means a process that removes a portion of the sulfur in a fuel before combustion of the fuel in a steam generating unit.

Full capacity means operation of the steam generating unit at 90 percent or more of the maximum steady-state design heat input capacity.

Gaseous fuel means any fuel that is present as a gas at ISO conditions.

Gross output means the gross useful work performed by the steam generated. For units generating only electricity, the gross useful work performed is the gross electrical output from the turbine/generator set. For cogeneration units, the gross useful work performed is the gross electrical or mechanical output plus 75 percent of the useful thermal output measured relative to ISO conditions that is not used to generate additional electrical or mechanical output (i.e., steam delivered to an industrial process).

Heat input means heat derived from combustion of fuel in a steam generating unit and does not include the heat derived from preheated combustion air, recirculated flue gases, or exhaust gases from other sources, such as gas turbines, internal combustion engines, kilns, etc.

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Heat release rate means the steam generating unit design heat input capacity (in MW or Btu/hr) divided by the furnace volume (in cubic meters or cubic feet); the furnace volume is that volume bounded by the front furnace wall where the burner is located, the furnace side waterwall, and extending to the level just below or in front of the first row of convection pass tubes.

Heat transfer medium means any material that is used to transfer heat from one point to another point.

High heat release rate means a heat release rate greater than 730,000 J/sec-m³ (70,000 Btu/hr-ft³).

ISO Conditions means a temperature of 288 Kelvin, a relative humidity of 60 percent, and a pressure of 101.3 kilopascals.

Lignite means a type of coal classified as lignite A or lignite B by the American Society of Testing and Materials in ASTM D388 (incorporated by reference, see §60.17).

Low heat release rate means a heat release rate of 730,000 J/sec-m³ (70,000 Btu/hr-ft³) or less.

Mass-feed stoker steam generating unit means a steam generating unit where solid fuel is introduced directly into a retort or is fed directly onto a grate where it is combusted.

Maximum heat input capacity means the ability of a steam generating unit to combust a stated maximum amount of fuel on a steady state basis, as determined by the physical design and characteristics of the steam generating unit.

Municipal-type solid waste means refuse, more than 50 percent of which is waste consisting of a mixture of paper, wood, yard wastes, food wastes, plastics, leather, rubber, and other combustible materials, and noncombustible materials such as glass and rock.

Natural gas means: (1) A naturally occurring mixture of hydrocarbon and nonhydrocarbon gases found in geologic formations beneath the earth's surface, of which the principal constituent is methane; or (2) liquefied petroleum gas, as defined by the American Society for Testing and Materials in ASTM D1835 (incorporated by reference, see §60.17).

Noncontinental area means the State of Hawaii, the Virgin Islands, Guam, American Samoa, the Commonwealth of Puerto Rico, or the Northern Mariana Islands.

Oil means crude oil or petroleum or a liquid fuel derived from crude oil or petroleum, including distillate and residual oil.

Petroleum refinery means industrial plants as classified by the Department of Commerce under Standard Industrial Classification (SIC) Code 29.

Potential sulfur dioxide emission rate means the theoretical SO₂ emission (nanograms per joule (ng/J) or lb/MMBtu heat input) that would result from combusting fuel in an uncleaned state and without using emission control systems.

Process heater means a device that is primarily used to heat a material to initiate or promote a chemical reaction in which the material participates as a reactant or catalyst.

Pulp and paper mills means industrial plants that are classified by the Department of Commerce under North American Industry Classification System (NAICS) Code 322 or Standard Industrial Classification (SIC) Code 26.

Pulverized coal-fired steam generating unit means a steam generating unit in which pulverized coal is introduced into an air stream that carries the coal to the combustion chamber of the steam generating unit where it is fired in suspension. This includes both conventional pulverized coal-fired and micropulverized coal-fired steam generating units. Residual oil means crude oil, fuel oil numbers 1 and 2 that have a nitrogen content greater than 0.05 weight percent, and all fuel oil numbers 4, 5 and 6, as defined by the American Society of Testing and Materials in ASTM D396 (incorporated by reference, see §60.17).

Spreader stoker steam generating unit means a steam generating unit in which solid fuel is introduced to the combustion zone by a mechanism that throws the fuel onto a grate from above. Combustion takes place both in suspension and on the grate.

Steam generating unit means a device that combusts any fuel or byproduct/waste and produces steam or heats water or any other heat transfer medium. This term includes any municipal-type solid waste incinerator with a heat recovery steam generating unit or any steam generating unit that combusts fuel and is part of a cogeneration system or a combined cycle system. This term does not include process heaters as they are defined in this subpart.

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Steam generating unit operating day means a 24-hour period between 12:00 midnight and the following midnight during which any fuel is combusted at any time in the steam generating unit. It is not necessary for fuel to be combusted continuously for the entire 24-hour period.

Very low sulfur oil means for units constructed, reconstructed, or modified on or before February 28, 2005, an oil that contains no more than 0.5 weight percent sulfur or that, when combusted without SO₂ emission control, has a SO₂ emission rate equal to or less than 215 ng/J (0.5 lb/MMBtu) heat input. For units constructed, reconstructed, or modified after February 28, 2005, *very low sulfur oil* means an oil that contains no more than 0.3 weight percent sulfur or that, when combusted without SO₂ emission control, has a SO₂ emission rate equal to or less than 140 ng/J (0.32 lb/MMBtu) heat input.

Wet flue gas desulfurization technology means a SO₂ control system that is located downstream of the steam generating unit and removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gas with an alkaline slurry or solution and forming a liquid material. This definition applies to devices where the aqueous liquid material product of this contact is subsequently converted to other forms. Alkaline reagents used in wet flue gas desulfurization technology include, but are not limited to, lime, limestone, and sodium.

Wet scrubber system means any emission control device that mixes an aqueous stream or slurry with the exhaust gases from a steam generating unit to control emissions of PM or SO₂.

Wood means wood, wood residue, bark, or any derivative fuel or residue thereof, in any form, including, but not limited to, sawdust, sanderdust, wood chips, scraps, slabs, millings, shavings, and processed pellets made from wood or other forest residues.

§ 60.42b Standard for sulfur dioxide (SO₂).

- (a) Except as provided in paragraphs (b), (c), (d), or (k) of this section, on and after the date on which the performance test is completed or required to be completed under §60.8, whichever comes first, no owner or operator of an affected facility that commenced construction, reconstruction, or modification on or before February 28, 2005, that combusts coal or oil shall cause to be discharged into the atmosphere any gases that contain SO₂ in excess of 87 ng/J (0.20 lb/MMBtu) or 10 percent (0.10) of the potential SO₂ emission rate (90 percent reduction) and the emission limit determined according to the following formula:

$$E_s = \frac{(K_a H_a + K_b H_b)}{(H_a + H_b)}$$

Where:

- E_s = SO₂ emission limit, in ng/J or lb/MMBtu heat input;
 K_a = 520 ng/J (or 1.2 lb/MMBtu);
 K_b = 340 ng/J (or 0.80 lb/MMBtu);
 H_a = Heat input from the combustion of coal, in J (MMBtu); and
 H_b = Heat input from the combustion of oil, in J (MMBtu).

Only the heat input supplied to the affected facility from the combustion of coal and oil is counted under this section. No credit is provided for the heat input to the affected facility from the combustion of natural gas, wood, municipal-type solid waste, or other fuels or heat derived from exhaust gases from other sources, such as gas turbines, internal combustion engines, kilns, etc.

- (b) On and after the date on which the performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commenced construction, reconstruction, or modification on or before February 28, 2005, that combusts coal refuse alone in a fluidized bed combustion steam generating unit shall cause to be discharged into the atmosphere any gases that contain SO₂ in excess of 87 ng/J (0.20 lb/MMBtu) or 20 percent (0.20) of the potential SO₂ emission rate (80 percent reduction) and 520 ng/J (1.2 lb/MMBtu) heat input. If coal or oil is fired with coal refuse, the affected facility is subject to paragraph (a) or (d) of this section, as applicable.

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- (c) On and after the date on which the performance test is completed or is required to be completed under §60.8, whichever comes first, no owner or operator of an affected facility that combusts coal or oil, either alone or in combination with any other fuel, and that uses an emerging technology for the control of SO₂ emission, shall cause to be discharged into the atmosphere any gases that contain SO₂ in excess of 50 percent of the potential SO₂ emission rate (50 percent reduction) and that contain SO₂ in excess of the emission limit determined according to the following formula:

$$E_s = \frac{(K_c H_c + K_d H_d)}{(H_c + H_d)}$$

Where:

E_s = SO₂ emission limit, in ng/J or lb/MM Btu heat input;

K_c = 260 ng/J (or 0.60 lb/MMBtu);

K_d = 170 ng/J (or 0.40 lb/MMBtu);

H_c = Heat input from the combustion of coal, in J (MMBtu); and

H_d = Heat input from the combustion of oil, in J (MMBtu).

Only the heat input supplied to the affected facility from the combustion of coal and oil is counted under this section. No credit is provided for the heat input to the affected facility from the combustion of natural gas, wood, municipal-type solid waste, or other fuels, or from the heat input derived from exhaust gases from other sources, such as gas turbines, internal combustion engines, kilns, etc.

- (d) On and after the date on which the performance test is completed or required to be completed under §60.8, whichever comes first, no owner or operator of an affected facility that commenced construction, reconstruction, or modification on or before February 28, 2005 and listed in paragraphs (d)(1), (2), (3), or (4) of this section shall cause to be discharged into the atmosphere any gases that contain SO₂ in excess of 520 ng/J (1.2 lb/MMBtu) heat input if the affected facility combusts coal, or 215 ng/J (0.5 lb/MMBtu) heat input if the affected facility combusts oil other than very low sulfur oil. Percent reduction requirements are not applicable to affected facilities under paragraphs (d)(1), (2), (3) or (4) of this section.
- (1) Affected facilities that have an annual capacity factor for coal and oil of 30 percent (0.30) or less and are subject to a federally enforceable permit limiting the operation of the affected facility to an annual capacity factor for coal and oil of 30 percent (0.30) or less;
 - (2) Affected facilities located in a noncontinental area; or
 - (3) Affected facilities combusting coal or oil, alone or in combination with any fuel, in a duct burner as part of a combined cycle system where 30 percent (0.30) or less of the heat entering the steam generating unit is from combustion of coal and oil in the duct burner and 70 percent (0.70) or more of the heat entering the steam generating unit is from the exhaust gases entering the duct burner; or
 - (4) The affected facility burns coke oven gas alone or in combination with natural gas or very low sulfur distillate oil.
- (e) Except as provided in paragraph (f) of this section, compliance with the emission limits, fuel oil sulfur limits, and/or percent reduction requirements under this section are determined on a 30-day rolling average basis.
- (f) Except as provided in paragraph (j)(2) of this section, compliance with the emission limits or fuel oil sulfur limits under this section is determined on a 24-hour average basis for affected facilities that (1) have a federally enforceable permit limiting the annual capacity factor for oil to 10 percent or less, (2) combust only very low sulfur oil, and (3) do not combust any other fuel.
- (g) Except as provided in paragraph (i) of this section and §60.45b(a), the SO₂ emission limits and percent reduction requirements under this section apply at all times, including periods of startup, shutdown, and malfunction.
- (h) Reductions in the potential SO₂ emission rate through fuel pretreatment are not credited toward the percent reduction requirement under paragraph (c) of this section unless:
- (1) Fuel pretreatment results in a 50 percent or greater reduction in potential SO₂ emissions and

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- (2) Emissions from the pretreated fuel (without combustion or post-combustion SO₂ control) are equal to or less than the emission limits specified in paragraph (c) of this section.
- (i) An affected facility subject to paragraph (a), (b), or (c) of this section may combust very low sulfur oil or natural gas when the SO₂ control system is not being operated because of malfunction or maintenance of the SO₂ control system.
- (j) Percent reduction requirements are not applicable to affected facilities combusting only very low sulfur oil. The owner or operator of an affected facility combusting very low sulfur oil shall demonstrate that the oil meets the definition of very low sulfur oil by: (1) Following the performance testing procedures as described in §60.45b(c) or §60.45b(d), and following the monitoring procedures as described in §60.47b(a) or §60.47b(b) to determine SO₂ emission rate or fuel oil sulfur content; or (2) maintaining fuel records as described in §60.49b(r).
- (k)
- (1) Except as provided in paragraphs (k)(2), (k)(3), and (k)(4) of this section, on and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commences construction, reconstruction, or modification after February 28, 2005, and that combusts coal, oil, natural gas, a mixture of these fuels, or a mixture of these fuels with any other fuels shall cause to be discharged into the atmosphere any gases that contain SO₂ in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 8 percent (0.08) of the potential SO₂ emission rate (92 percent reduction) and 520 ng/J (1.2 lb/MMBtu) heat input.
- (2) Units firing only very low sulfur oil and/or a mixture of gaseous fuels with a potential SO₂ emission rate of 140 ng/J (0.32 lb/MMBtu) heat input or less are exempt from the SO₂ emissions limit in paragraph 60.42b(k)(1).
- (3) Units that are located in a noncontinental area and that combust coal or oil shall not discharge any gases that contain SO₂ in excess of 520 ng/J (1.2 lb/MMBtu) heat input if the affected facility combusts coal, or 215 ng/J (0.50 lb/MMBtu) heat input if the affected facility combusts oil.
- (4) As an alternative to meeting the requirements under paragraph (k)(1) of this section, modified facilities that combust coal or a mixture of coal with other fuels shall not cause to be discharged into the atmosphere any gases that contain SO₂ in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 10 percent (0.10) of the potential SO₂ emission rate (90 percent reduction) and 520 ng/J (1.2 lb/MMBtu) heat input.

§ 60.43b Standard for particulate matter (PM).

- (a) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever comes first, no owner or operator of an affected facility that commenced construction, reconstruction, or modification on or before February 28, 2005 that combusts coal or combusts mixtures of coal with other fuels, shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of the following emission limits:
- (1) 22 ng/J (0.051 lb/MMBtu) heat input,
- (i) If the affected facility combusts only coal, or
- (ii) If the affected facility combusts coal and other fuels and has an annual capacity factor for the other fuels of 10 percent (0.10) or less.
- (2) 43 ng/J (0.10 lb/MMBtu) heat input if the affected facility combusts coal and other fuels and has an annual capacity factor for the other fuels greater than 10 percent (0.10) and is subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor greater than 10 percent (0.10) for fuels other than coal.
- (3) 86 ng/J (0.20 lb/MMBtu) heat input if the affected facility combusts coal or coal and other fuels and
- (i) Has an annual capacity factor for coal or coal and other fuels of 30 percent (0.30) or less,
- (ii) Has a maximum heat input capacity of 73 MW (250 MMBtu/hr) or less,
- (iii) Has a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor of 30 percent (0.30) or less for coal or coal and other solid fuels, and

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- (iv) Construction of the affected facility commenced after June 19, 1984, and before November 25, 1986.
- (4) An affected facility burning coke oven gas alone or in combination with other fuels not subject to a PM standard under §60.43b and not using a post-combustion technology (except a wet scrubber) for reducing PM or SO₂ emissions is not subject to the PM limits under §60.43b(a).
- (b) On and after the date on which the performance test is completed or required to be completed under §60.8, whichever comes first, no owner or operator of an affected facility that commenced construction, reconstruction, or modification on or before February 28, 2005, and that combusts oil (or mixtures of oil with other fuels) and uses a conventional or emerging technology to reduce SO₂ emissions shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of 43 ng/J (0.10 lb/MMBtu) heat input.
- (c) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever comes first, no owner or operator of an affected facility that commenced construction, reconstruction, or modification on or before February 28, 2005, and that combusts wood, or wood with other fuels, except coal, shall cause to be discharged from that affected facility any gases that contain PM in excess of the following emission limits:
- (1) 43 ng/J (0.10 lb/MMBtu) heat input if the affected facility has an annual capacity factor greater than 30 percent (0.30) for wood.
- (2) 86 ng/J (0.20 lb/MMBtu) heat input if
- (i) The affected facility has an annual capacity factor of 30 percent (0.30) or less for wood;
- (ii) Is subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor of 30 percent (0.30) or less for wood; and
- (iii) Has a maximum heat input capacity of 73 MW (250 MMBtu/hr) or less.
- (d) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that combusts municipal-type solid waste or mixtures of municipal-type solid waste with other fuels, shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of the following emission limits:
- (1) 43 ng/J (0.10 lb/MMBtu) heat input;
- (i) If the affected facility combusts only municipal-type solid waste; or
- (ii) If the affected facility combusts municipal-type solid waste and other fuels and has an annual capacity factor for the other fuels of 10 percent (0.10) or less.
- (2) 86 ng/J (0.20 lb/MMBtu) heat input if the affected facility combusts municipal-type solid waste or municipal-type solid waste and other fuels; and
- (i) Has an annual capacity factor for municipal-type solid waste and other fuels of 30 percent (0.30) or less;
- (ii) Has a maximum heat input capacity of 73 MW (250 MMBtu/hr) or less;
- (iii) Has a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor of 30 percent (0.30) or less for municipal-type solid waste, or municipal-type solid waste and other fuels; and
- (iv) Construction of the affected facility commenced after June 19, 1984, but on or before November 25, 1986.
- (e) For the purposes of this section, the annual capacity factor is determined by dividing the actual heat input to the steam generating unit during the calendar year from the combustion of coal, wood, or municipal-type solid waste, and other fuels, as applicable, by the potential heat input to the steam generating unit if the steam generating unit had been operated for 8,760 hours at the maximum heat input capacity.
- (f) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that combusts coal, oil, wood, or mixtures of these fuels with any other fuels shall cause to be discharged into the atmosphere any gases that exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity.

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(g) The PM and opacity standards apply at all times, except during periods of startup, shutdown or malfunction.

(h)

- (1) Except as provided in paragraphs (h)(2), (h)(3), (h)(4), and (h)(5) of this section, on and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commenced construction, reconstruction, or modification after February 28, 2005, and that combusts coal, oil, wood, a mixture of these fuels, or a mixture of these fuels with any other fuels shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of 13 ng/J (0.030 lb/MMBtu) heat input,
- (2) As an alternative to meeting the requirements of paragraph (h)(1) of this section, the owner or operator of an affected facility for which modification commenced after February 28, 2005, may elect to meet the requirements of this paragraph. On and after the date on which the initial performance test is completed or required to be completed under §60.8, no owner or operator of an affected facility that commences modification after February 28, 2005 shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of both:
 - (i) 22 ng/J (0.051 lb/MMBtu) heat input derived from the combustion of coal, oil, wood, a mixture of these fuels, or a mixture of these fuels with any other fuels; and
 - (ii) 0.2 percent of the combustion concentration (99.8 percent reduction) when combusting coal, oil, wood, a mixture of these fuels, or a mixture of these fuels with any other fuels.
- (3) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commences modification after February 28, 2005, and that combusts over 30 percent wood (by heat input) on an annual basis and has a maximum heat input capacity of 73 MW (250 MMBtu/h) or less shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of 43 ng/J (0.10 lb/MMBtu) heat input.
- (4) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commences modification after February 28, 2005, and that combusts over 30 percent wood (by heat input) on an annual basis and has a maximum heat input capacity greater than 73 MW (250 MMBtu/h) shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of 37 ng/J (0.085 lb/MMBtu) heat input.
- (5) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, an owner or operator of an affected facility that commences construction, reconstruction, or modification after February 28, 2005, and that combusts only oil that contains no more than 0.3 weight percent sulfur, coke oven gas, a mixture of these fuels, or either fuel (or a mixture of these fuels) in combination with other fuels not subject to a PM standard under §60.43b and not using a post-combustion technology (except a wet scrubber) to reduce SO₂ or PM emissions is not subject to the PM limits under §60.43b(h)(1).

§ 60.44b Standard for nitrogen oxides (NO_x).

- (a) Except as provided under paragraphs (k) and (l) of this section, on and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that is subject to the provisions of this section and that combusts only coal, oil, or natural gas shall cause to be discharged into the atmosphere from that affected facility any gases that contain NO_x (expressed as NO₂) in excess of the following emission limits:

Fuel/steam generating unit type	Nitrogen oxide emission limits (expressed as NO ₂) heat input	
	ng/J	lb/MMBTu
(1) Natural gas and distillate oil, except (4):		
(i) Low heat release rate	43	0.10

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Fuel/steam generating unit type	Nitrogen oxide emission limits (expressed as NO ₂) heat input	
	ng/J	lb/MMBTu
(ii) High heat release rate	86	0.20
(2) Residual oil:		
(i) Low heat release rate	130	0.30
(ii) High heat release rate	170	0.40
(3) Coal:		
(i) Mass-feed stoker	210	0.50
(ii) Spreader stoker and fluidized bed combustion	260	0.60
(iii) Pulverized coal	300	0.70
(iv) Lignite, except (v)	260	0.60
(v) Lignite mined in North Dakota, South Dakota, or Montana and combusted in a slag tap furnace	340	0.80
(vi) Coal-derived synthetic fuels	210	0.50
(4) Duct burner used in a combined cycle system:		
(i) Natural gas and distillate oil	86	0.20
(ii) Residual oil	170	0.40

- (b) Except as provided under paragraphs (k) and (l) of this section, on and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that simultaneously combusts mixtures of coal, oil, or natural gas shall cause to be discharged into the atmosphere from that affected facility any gases that contain NO_x in excess of a limit determined by the use of the following formula:

$$E_x = \frac{(EL_{go}H_{go}) + (EL_{ro}H_{ro}) + (EL_cH_c)}{(H_{go} + H_{ro} + H_c)}$$

Where:

E_n = NO_x emission limit (expressed as NO₂), ng/J (lb/MMBTu);

EL_{go} = Appropriate emission limit from paragraph (a)(1) for combustion of natural gas or distillate oil, ng/J (lb/MMBTu);

H_{go} = Heat input from combustion of natural gas or distillate oil, J (MMBTu);

EL_{ro} = Appropriate emission limit from paragraph (a)(2) for combustion of residual oil, ng/J (lb/MMBTu);

H_{ro} = Heat input from combustion of residual oil, J (MMBTu);

EL_c = Appropriate emission limit from paragraph (a)(3) for combustion of coal, ng/J (lb/MMBTu); and

H_c = Heat input from combustion of coal, J (MMBTu).

- (c) Except as provided under paragraph (l) of this section, on and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that simultaneously combusts coal or oil, or a mixture of these fuels with natural gas, and wood, municipal-type solid waste, or any other fuel shall cause to be discharged into the atmosphere any gases that contain NO_x in excess of the emission limit for the coal or oil, or mixtures of these fuels with natural gas combusted in the affected facility, as

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determined pursuant to paragraph (a) or (b) of this section, unless the affected facility has an annual capacity factor for coal or oil, or mixture of these fuels with natural gas of 10 percent (0.10) or less and is subject to a federally enforceable requirement that limits operation of the affected facility to an annual capacity factor of 10 percent (0.10) or less for coal, oil, or a mixture of these fuels with natural gas.

- (d) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that simultaneously combusts natural gas with wood, municipal-type solid waste, or other solid fuel, except coal, shall cause to be discharged into the atmosphere from that affected facility any gases that contain NO_x in excess of 130 ng/J (0.30 lb/MMBtu) heat input unless the affected facility has an annual capacity factor for natural gas of 10 percent (0.10) or less and is subject to a federally enforceable requirement that limits operation of the affected facility to an annual capacity factor of 10 percent (0.10) or less for natural gas.
- (e) Except as provided under paragraph (l) of this section, on and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that simultaneously combusts coal, oil, or natural gas with byproduct/waste shall cause to be discharged into the atmosphere any gases that contain NO_x in excess of the emission limit determined by the following formula unless the affected facility has an annual capacity factor for coal, oil, and natural gas of 10 percent (0.10) or less and is subject to a federally enforceable requirement that limits operation of the affected facility to an annual capacity factor of 10 percent (0.10) or less:

$$E_n = \frac{(EL_g H_g) + (EL_o H_o) + (EL_c H_c)}{(H_g + H_o + H_c)}$$

Where:

E_n = NO_x emission limit (expressed as NO₂), ng/J (lb/MMBtu);

EL_{go} = Appropriate emission limit from paragraph (a)(1) for combustion of natural gas or distillate oil, ng/J (lb/MMBtu);

H_{go} = Heat input from combustion of natural gas, distillate oil and gaseous byproduct/waste, J (MMBtu);

EL_{ro} = Appropriate emission limit from paragraph (a)(2) for combustion of residual oil and/or byproduct/waste, ng/J (lb/MMBtu);

H_{ro} = Heat input from combustion of residual oil, J (MMBtu);

EL_c = Appropriate emission limit from paragraph (a)(3) for combustion of coal, ng/J (lb/MMBtu); and

H_c = Heat input from combustion of coal, J (MMBtu).

- (f) Any owner or operator of an affected facility that combusts byproduct/waste with either natural gas or oil may petition the Administrator within 180 days of the initial startup of the affected facility to establish a NO_x emission limit that shall apply specifically to that affected facility when the byproduct/waste is combusted. The petition shall include sufficient and appropriate data, as determined by the Administrator, such as NO_x emission from the affected facility, waste composition (including nitrogen content), and combustion conditions to allow the Administrator to confirm that the affected facility is unable to comply with the emission limits in paragraph (e) of this section and to determine the appropriate emission limit for the affected facility.
- (1) Any owner or operator of an affected facility petitioning for a facility-specific NO_x emission limit under this section shall:
- Demonstrate compliance with the emission limits for natural gas and distillate oil in paragraph (a)(1) of this section or for residual oil in paragraph (a)(2) or (l)(1) of this section, as appropriate, by conducting a 30-day performance test as provided in §60.46b(e). During the performance test only natural gas, distillate oil, or residual oil shall be combusted in the affected facility; and
 - Demonstrate that the affected facility is unable to comply with the emission limits for natural gas and distillate oil in paragraph (a)(1) of this section or for residual oil in paragraph (a)(2) or (l)(1) of this section, as

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appropriate, when gaseous or liquid byproduct/waste is combusted in the affected facility under the same conditions and using the same technological system of emission reduction applied when demonstrating compliance under paragraph (f)(1)(i) of this section.

- (2) The NO_x emission limits for natural gas or distillate oil in paragraph (a)(1) of this section or for residual oil in paragraph (a)(2) or (l)(1) of this section, as appropriate, shall be applicable to the affected facility until and unless the petition is approved by the Administrator. If the petition is approved by the Administrator, a facility-specific NO_x emission limit will be established at the NO_x emission level achievable when the affected facility is combusting oil or natural gas and byproduct/waste in a manner that the Administrator determines to be consistent with minimizing NO_x emissions. In lieu of amending this subpart, a letter will be sent to the facility describing the facility-specific NO_x limit. The facility shall use the compliance procedures detailed in the letter and make the letter available to the public. If the Administrator determines it is appropriate, the conditions and requirements of the letter can be reviewed and changed at any point.
- (g) Any owner or operator of an affected facility that combusts hazardous waste (as defined by 40 CFR part 261 or 40 CFR part 761) with natural gas or oil may petition the Administrator within 180 days of the initial startup of the affected facility for a waiver from compliance with the NO_x emission limit that applies specifically to that affected facility. The petition must include sufficient and appropriate data, as determined by the Administrator, on NO_x emissions from the affected facility, waste destruction efficiencies, waste composition (including nitrogen content), the quantity of specific wastes to be combusted and combustion conditions to allow the Administrator to determine if the affected facility is able to comply with the NO_x emission limits required by this section. The owner or operator of the affected facility shall demonstrate that when hazardous waste is combusted in the affected facility, thermal destruction efficiency requirements for hazardous waste specified in an applicable federally enforceable requirement preclude compliance with the NO_x emission limits of this section. The NO_x emission limits for natural gas or distillate oil in paragraph (a)(1) of this section or for residual oil in paragraph (a)(2) or (l)(1) of this section, as appropriate, are applicable to the affected facility until and unless the petition is approved by the Administrator. (See 40 CFR 761.70 for regulations applicable to the incineration of materials containing polychlorinated biphenyls (PCB's).) In lieu of amending this subpart, a letter will be sent to the facility describing the facility-specific NO_x limit. The facility shall use the compliance procedures detailed in the letter and make the letter available to the public. If the Administrator determines it is appropriate, the conditions and requirements of the letter can be reviewed and changed at any point.
- (h) For purposes of paragraph (i) of this section, the NO_x standards under this section apply at all times including periods of startup, shutdown, or malfunction.
- (i) Except as provided under paragraph (j) of this section, compliance with the emission limits under this section is determined on a 30-day rolling average basis.
- (j) Compliance with the emission limits under this section is determined on a 24-hour average basis for the initial performance test and on a 3-hour average basis for subsequent performance tests for any affected facilities that:
- (1) Combust, alone or in combination, only natural gas, distillate oil, or residual oil with a nitrogen content of 0.30 weight percent or less;
 - (2) Have a combined annual capacity factor of 10 percent or less for natural gas, distillate oil, and residual oil with a nitrogen content of 0.30 weight percent or less; and
 - (3) Are subject to a federally enforceable requirement limiting operation of the affected facility to the firing of natural gas, distillate oil, and/or residual oil with a nitrogen content of 0.30 weight percent or less and limiting operation of the affected facility to a combined annual capacity factor of 10 percent or less for natural gas, distillate oil, and residual oil with a nitrogen content of 0.30 weight percent or less.
- (k) Affected facilities that meet the criteria described in paragraphs (j)(1), (2), and (3) of this section, and that have a heat input capacity of 73 MW (250 MMBtu/hr) or less, are not subject to the NO_x emission limits under this section.
- (l) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commenced construction or reconstruction after July 9, 1997 shall cause to be discharged into the atmosphere from that affected facility any gases that contain NO_x (expressed as NO₂) in excess of the following limits:

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- (1) If the affected facility combusts coal, oil, or natural gas, or a mixture of these fuels, or with any other fuels: A limit of 86 ng/J (0.20 lb/MMBtu) heat input unless the affected facility has an annual capacity factor for coal, oil, and natural gas of 10 percent (0.10) or less and is subject to a federally enforceable requirement that limits operation of the facility to an annual capacity factor of 10 percent (0.10) or less for coal, oil, and natural gas; or
- (2) If the affected facility has a low heat release rate and combusts natural gas or distillate oil in excess of 30 percent of the heat input on a 30-day rolling average from the combustion of all fuels, a limit determined by use of the following formula:

$$E_n = \frac{(0.10 \times H_{go}) + (0.20 \times H_r)}{(H_{go} + H_r)}$$

Where:

E_n = NO_x emission limit, (lb/MMBtu);

H_{go} = 30-day heat input from combustion of natural gas or distillate oil; and

H_r = 30-day heat input from combustion of any other fuel.

- (3) After February 27, 2006, units where more than 10 percent of total annual output is electrical or mechanical may comply with an optional limit of 270 ng/J (2.1 lb/MWh) gross energy output, based on a 30-day rolling average. Units complying with this output-based limit must demonstrate compliance according to the procedures of §60.48Da(i) of subpart Da of this part, and must monitor emissions according to §60.49Da(c), (k), through (n) of subpart Da of this part.

§ 60.45b Compliance and performance test methods and procedures for sulfur dioxide.

- (a) The SO₂ emission standards under §60.42b apply at all times. Facilities burning coke oven gas alone or in combination with any other gaseous fuels or distillate oil and complying with the fuel based limit under §60.42b(d) or §60.42b(k)(2) are allowed to exceed the limit 30 operating days per calendar year for by-product plant maintenance.
- (b) In conducting the performance tests required under §60.8, the owner or operator shall use the methods and procedures in appendix A (including fuel certification and sampling) of this part or the methods and procedures as specified in this section, except as provided in §60.8(b). Section 60.8(f) does not apply to this section. The 30-day notice required in §60.8(d) applies only to the initial performance test unless otherwise specified by the Administrator.
- (c) The owner or operator of an affected facility shall conduct performance tests to determine compliance with the percent of potential SO₂ emission rate (% P_s) and the SO₂ emission rate (E_s) pursuant to §60.42b following the procedures listed below, except as provided under paragraph (d) and (k) of this section.
 - (1) The initial performance test shall be conducted over 30 consecutive operating days of the steam generating unit. Compliance with the SO₂ standards shall be determined using a 30-day average. The first operating day included in the initial performance test shall be scheduled within 30 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of the facility.
 - (2) If only coal, only oil, or a mixture of coal and oil is combusted, the following procedures are used:
 - (i) The procedures in Method 19 of appendix A of this part are used to determine the hourly SO₂ emission rate (E_{ho}) and the 30-day average emission rate (E_{ao}). The hourly averages used to compute the 30-day averages are obtained from the continuous emission monitoring system (CEMS) of §60.47b (a) or (b).
 - (ii) The percent of potential SO₂ emission rate (%P_s) emitted to the atmosphere is computed using the following formula:

$$\%P_s = 100 \left(1 - \frac{\%R_f}{100} \right) \left(1 - \frac{\%R_e}{100} \right)$$

Where:

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$\%P_s$ = Potential SO₂ emission rate, percent;

$\%R_g$ = SO₂ removal efficiency of the control device as determined by Method 19 of appendix A of this part, in percent;
and

$\%R_f$ = SO₂ removal efficiency of fuel pretreatment as determined by Method 19 of appendix A of this part, in percent.

(3) If coal or oil is combusted with other fuels, the same procedures required in paragraph (c)(2) of this section are used, except as provided in the following:

- (i) An adjusted hourly SO₂ emission rate (E_{ho}°) is used in Equation 19–19 of Method 19 of appendix A of this part to compute an adjusted 30-day average emission rate (E_{ao}°). The E_{ho}° is computed using the following formula:

$$E_{ho}^\circ = \frac{E_{ho} - E_w(1 - X_1)}{X_1}$$

Where:

E_{ho}° = Adjusted hourly SO₂ emission rate, ng/J (lb/MMBtu);

E_{ho} = Hourly SO₂ emission rate, ng/J (lb/MMBtu);

E_w = SO₂ concentration in fuels other than coal and oil combusted in the affected facility, as determined by the fuel sampling and analysis procedures in Method 19 of appendix A of this part, ng/J (lb/MMBtu). The value E_w for each fuel lot is used for each hourly average during the time that the lot is being combusted; and

X_k = Fraction of total heat input from fuel combustion derived from coal, oil, or coal and oil, as determined by applicable procedures in Method 19 of appendix A of this part.

- (ii) To compute the percent of potential SO₂ emission rate ($\%P_s$), an adjusted $\%R_g(\%R_g^\circ)$ is computed from the adjusted E_{ao}° from paragraph (b)(3)(i) of this section and an adjusted average SO₂ inlet rate (E_{ai}°) using the following formula:

$$\%R_g^\circ = 100 \left(1.0 - \frac{E_{ao}^\circ}{E_{ai}^\circ} \right)$$

To compute E_{ai}° , an adjusted hourly SO₂ inlet rate (E_{hi}°) is used. The E_{hi}° is computed using the following formula:

$$E_{hi}^\circ = \frac{E_{hi} - E_w(1 - X_1)}{X_1}$$

Where:

E_{hi}° = Adjusted hourly SO₂ inlet rate, ng/J (lb/MMBtu); and

E_{hi} = Hourly SO₂ inlet rate, ng/J (lb/MMBtu).

(4) The owner or operator of an affected facility subject to paragraph (b)(3) of this section does not have to measure parameters E_w or X_k if the owner or operator elects to assume that $X_k = 1.0$. Owners or operators of affected facilities who assume $X_k = 1.0$ shall:

- (i) Determine $\%P_s$ following the procedures in paragraph (c)(2) of this section; and
- (ii) Sulfur dioxide emissions (E_s) are considered to be in compliance with SO₂ emission limits under §60.42b.
- (5) The owner or operator of an affected facility that qualifies under the provisions of §60.42b(d) does not have to measure parameters E_w or X_k under paragraph (b)(3) of this section if the owner or operator of the affected facility elects to measure SO₂ emission rates of the coal or oil following the fuel sampling and analysis procedures under Method 19 of appendix A of this part.

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- (d) Except as provided in paragraph (j) of this section, the owner or operator of an affected facility that combusts only very low sulfur oil, has an annual capacity factor for oil of 10 percent (0.10) or less, and is subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor for oil of 10 percent (0.10) or less shall:
- (1) Conduct the initial performance test over 24 consecutive steam generating unit operating hours at full load;
 - (2) Determine compliance with the standards after the initial performance test based on the arithmetic average of the hourly emissions data during each steam generating unit operating day if a CEMS is used, or based on a daily average if Method 6B of appendix A of this part or fuel sampling and analysis procedures under Method 19 of appendix A of this part are used.
- (e) The owner or operator of an affected facility subject to §60.42b(d)(1) shall demonstrate the maximum design capacity of the steam generating unit by operating the facility at maximum capacity for 24 hours. This demonstration will be made during the initial performance test and a subsequent demonstration may be requested at any other time. If the 24-hour average firing rate for the affected facility is less than the maximum design capacity provided by the manufacturer of the affected facility, the 24-hour average firing rate shall be used to determine the capacity utilization rate for the affected facility, otherwise the maximum design capacity provided by the manufacturer is used.
- (f) For the initial performance test required under §60.8, compliance with the SO₂ emission limits and percent reduction requirements under §60.42b is based on the average emission rates and the average percent reduction for SO₂ for the first 30 consecutive steam generating unit operating days, except as provided under paragraph (d) of this section. The initial performance test is the only test for which at least 30 days prior notice is required unless otherwise specified by the Administrator. The initial performance test is to be scheduled so that the first steam generating unit operating day of the 30 successive steam generating unit operating days is completed within 30 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of the facility. The boiler load during the 30-day period does not have to be the maximum design load, but must be representative of future operating conditions and include at least one 24-hour period at full load.
- (g) After the initial performance test required under §60.8, compliance with the SO₂ emission limits and percent reduction requirements under §60.42b is based on the average emission rates and the average percent reduction for SO₂ for 30 successive steam generating unit operating days, except as provided under paragraph (d). A separate performance test is completed at the end of each steam generating unit operating day after the initial performance test, and a new 30-day average emission rate and percent reduction for SO₂ are calculated to show compliance with the standard.
- (h) Except as provided under paragraph (i) of this section, the owner or operator of an affected facility shall use all valid SO₂ emissions data in calculating %P_s and E_{h0} under paragraph (c), of this section whether or not the minimum emissions data requirements under §60.46b are achieved. All valid emissions data, including valid SO₂ emission data collected during periods of startup, shutdown and malfunction, shall be used in calculating %P_s and E_{h0} pursuant to paragraph (c) of this section.
- (i) During periods of malfunction or maintenance of the SO₂ control systems when oil is combusted as provided under §60.42b(i), emission data are not used to calculate %P_s or E_s under §60.42b(a), (b) or (c), however, the emissions data are used to determine compliance with the emission limit under §60.42b(i).
- (j) The owner or operator of an affected facility that combusts very low sulfur oil is not subject to the compliance and performance testing requirements of this section if the owner or operator obtains fuel receipts as described in §60.49b(r).
- (k) The owner or operator of an affected facility seeking to demonstrate compliance under §§60.42b(d)(4), 60.42b(j), and 60.42b(k)(2) shall follow the applicable procedures under §60.49b(r).

§ 60.46b Compliance and performance test methods and procedures for particulate matter and nitrogen oxides.

- (a) The PM emission standards and opacity limits under §60.43b apply at all times except during periods of startup, shutdown, or malfunction. The NO_x emission standards under §60.44b apply at all times.
- (b) Compliance with the PM emission standards under §60.43b shall be determined through performance testing as described in paragraph (d) of this section, except as provided in paragraph (i) of this section.

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- (c) Compliance with the NO_x emission standards under §60.44b shall be determined through performance testing under paragraph (e) or (f), or under paragraphs (g) and (h) of this section, as applicable.
- (d) To determine compliance with the PM emission limits and opacity limits under §60.43b, the owner or operator of an affected facility shall conduct an initial performance test as required under §60.8, and shall conduct subsequent performance tests as requested by the Administrator, using the following procedures and reference methods:
 - (1) Method 3B of appendix A of this part is used for gas analysis when applying Method 5 or 17 of appendix A of this part.
 - (2) Method 5, 5B, or 17 of appendix A of this part shall be used to measure the concentration of PM as follows:
 - (i) Method 5 of appendix A of this part shall be used at affected facilities without wet flue gas desulfurization (FGD) systems; and
 - (ii) Method 17 of appendix A of this part may be used at facilities with or without wet scrubber systems provided the stack gas temperature does not exceed a temperature of 160 °C (32 °F). The procedures of sections 2.1 and 2.3 of Method 5B of appendix A of this part may be used in Method 17 of appendix A of this part only if it is used after a wet FGD system. Do not use Method 17 of appendix A of this part after wet FGD systems if the effluent is saturated or laden with water droplets.
 - (iii) Method 5B of appendix A of this part is to be used only after wet FGD systems.
 - (3) Method 1 of appendix A of this part is used to select the sampling site and the number of traverse sampling points. The sampling time for each run is at least 120 minutes and the minimum sampling volume is 1.7 dscm (60 dscf) except that smaller sampling times or volumes may be approved by the Administrator when necessitated by process variables or other factors.
 - (4) For Method 5 of appendix A of this part, the temperature of the sample gas in the probe and filter holder is monitored and is maintained at 160±14 °C (320±25 °F).
 - (5) For determination of PM emissions, the oxygen (O₂) or CO₂ sample is obtained simultaneously with each run of Method 5, 5B, or 17 of appendix A of this part by traversing the duct at the same sampling location.
 - (6) For each run using Method 5, 5B, or 17 of appendix A of this part, the emission rate expressed in ng/J heat input is determined using:
 - (i) The O₂ or CO₂ measurements and PM measurements obtained under this section;
 - (ii) The dry basis F factor; and
 - (iii) The dry basis emission rate calculation procedure contained in Method 19 of appendix A of this part.
 - (7) Method 9 of appendix A of this part is used for determining the opacity of stack emissions.
- (e) To determine compliance with the emission limits for NO_x required under §60.44b, the owner or operator of an affected facility shall conduct the performance test as required under §60.8 using the continuous system for monitoring NO_x under §60.48(b).
 - (1) For the initial compliance test, NO_x from the steam generating unit are monitored for 30 successive steam generating unit operating days and the 30-day average emission rate is used to determine compliance with the NO_x emission standards under §60.44b. The 30-day average emission rate is calculated as the average of all hourly emissions data recorded by the monitoring system during the 30-day test period.
 - (2) Following the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, the owner or operator of an affected facility which combusts coal or which combusts residual oil having a nitrogen content greater than 0.30 weight percent shall determine compliance with the NO_x emission standards under §60.44b on a continuous basis through the use of a 30-day rolling average emission rate. A new 30-day rolling average emission rate is calculated each steam generating unit operating day as the average of all of the hourly NO_x emission data for the preceding 30 steam generating unit operating days.

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- (3) Following the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, the owner or operator of an affected facility that has a heat input capacity greater than 73 MW (250 MMBtu/hr) and that combusts natural gas, distillate oil, or residual oil having a nitrogen content of 0.30 weight percent or less shall determine compliance with the NO_x standards under §60.44b on a continuous basis through the use of a 30-day rolling average emission rate. A new 30-day rolling average emission rate is calculated each steam generating unit operating day as the average of all of the hourly NO_x emission data for the preceding 30 steam generating unit operating days.
- (4) Following the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, the owner or operator of an affected facility that has a heat input capacity of 73 MW (250 MMBtu/hr) or less and that combusts natural gas, distillate oil, or residual oil having a nitrogen content of 0.30 weight percent or less shall upon request determine compliance with the NO_x standards under §60.44b through the use of a 30-day performance test. During periods when performance tests are not requested, NO_x emissions data collected pursuant to §60.48b(g)(1) or §60.48b(g)(2) are used to calculate a 30-day rolling average emission rate on a daily basis and used to prepare excess emission reports, but will not be used to determine compliance with the NO_x emission standards. A new 30-day rolling average emission rate is calculated each steam generating unit operating day as the average of all of the hourly NO_x emission data for the preceding 30 steam generating unit operating days.
- (5) If the owner or operator of an affected facility that combusts residual oil does not sample and analyze the residual oil for nitrogen content, as specified in §60.49b(e), the requirements of §60.48b(g)(1) apply and the provisions of §60.48b(g)(2) are inapplicable.
- (f) To determine compliance with the emissions limits for NO_x required by §60.44b(a)(4) or §60.44b(l) for duct burners used in combined cycle systems, either of the procedures described in paragraph (f)(1) or (2) of this section may be used:
- (1) The owner or operator of an affected facility shall conduct the performance test required under §60.8 as follows:
- (i) The emissions rate (E) of NO_x shall be computed using Equation 1 in this section:

$$E = E_{t,e} + \left(\frac{H_t}{H_b} \right) (E_{t,e} - E_t) \quad (\text{Eq.1})$$

Where:

E = Emissions rate of NO_x from the duct burner, ng/J (lb/MMBtu) heat input;

E_{sg} = Combined effluent emissions rate, in ng/J (lb/MMBtu) heat input using appropriate F factor as described in Method 19 of appendix A of this part;

H_g = Heat input rate to the combustion turbine, in J/hr (MMBtu/hr);

H_b = Heat input rate to the duct burner, in J/hr (MMBtu/hr); and

E_g = Emissions rate from the combustion turbine, in ng/J (lb/MMBtu) heat input calculated using appropriate F factor as described in Method 19 of appendix A of this part.

- (ii) Method 7E of appendix A of this part shall be used to determine the NO_x concentrations. Method 3A or 3B of appendix A of this part shall be used to determine O₂ concentration.
- (iii) The owner or operator shall identify and demonstrate to the Administrator's satisfaction suitable methods to determine the average hourly heat input rate to the combustion turbine and the average hourly heat input rate to the affected duct burner.
- (iv) Compliance with the emissions limits under §60.44b(a)(4) or §60.44b(l) is determined by the three-run average (nominal 1-hour runs) for the initial and subsequent performance tests; or
- (2) The owner or operator of an affected facility may elect to determine compliance on a 30-day rolling average basis by using the CEMS specified under §60.48b for measuring NO_x and O₂ and meet the requirements of §60.48b. The sampling site shall be located at the outlet from the steam generating unit. The NO_x emissions rate at the outlet from

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the steam generating unit shall constitute the NO_x emissions rate from the duct burner of the combined cycle system.

- (g) The owner or operator of an affected facility described in §60.44b(j) or §60.44b(k) shall demonstrate the maximum heat input capacity of the steam generating unit by operating the facility at maximum capacity for 24 hours. The owner or operator of an affected facility shall determine the maximum heat input capacity using the heat loss method described in sections 5 and 7.3 of the ASME *Power Test Codes* 4.1 (incorporated by reference, see §60.17). This demonstration of maximum heat input capacity shall be made during the initial performance test for affected facilities that meet the criteria of §60.44b(j). It shall be made within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial start-up of each facility, for affected facilities meeting the criteria of §60.44b(k). Subsequent demonstrations may be required by the Administrator at any other time. If this demonstration indicates that the maximum heat input capacity of the affected facility is less than that stated by the manufacturer of the affected facility, the maximum heat input capacity determined during this demonstration shall be used to determine the capacity utilization rate for the affected facility. Otherwise, the maximum heat input capacity provided by the manufacturer is used.
- (h) The owner or operator of an affected facility described in §60.44b(j) that has a heat input capacity greater than 73 MW (250 MMBtu/hr) shall:
 - (1) Conduct an initial performance test as required under §60.8 over a minimum of 24 consecutive steam generating unit operating hours at maximum heat input capacity to demonstrate compliance with the NO_x emission standards under §60.44b using Method 7, 7A, 7E of appendix A of this part, or other approved reference methods; and
 - (2) Conduct subsequent performance tests once per calendar year or every 400 hours of operation (whichever comes first) to demonstrate compliance with the NO_x emission standards under §60.44b over a minimum of 3 consecutive steam generating unit operating hours at maximum heat input capacity using Method 7, 7A, 7E of appendix A of this part, or other approved reference methods.
- (i) The owner or operator of an affected facility seeking to demonstrate compliance under paragraph §60.43b(h)(5) shall follow the applicable procedures under §60.49b(r).
- (j) In place of PM testing with EPA Reference Method 5, 5B, or 17 of appendix A of this part, an owner or operator may elect to install, calibrate, maintain, and operate a CEMS for monitoring PM emissions discharged to the atmosphere and record the output of the system. The owner or operator of an affected facility who elects to continuously monitor PM emissions instead of conducting performance testing using EPA Method 5, 5B, or 17 of appendix A of this part shall comply with the requirements specified in paragraphs (j)(1) through (j)(13) of this section.
 - (1) Notify the Administrator one month before starting use of the system.
 - (2) Notify the Administrator one month before stopping use of the system.
 - (3) The monitor shall be installed, evaluated, and operated in accordance with §60.13 of subpart A of this part.
 - (4) The initial performance evaluation shall be completed no later than 180 days after the date of initial startup of the affected facility, as specified under §60.8 of subpart A of this part or within 180 days of notification to the Administrator of use of the CEMS if the owner or operator was previously determining compliance by Method 5, 5B, or 17 of appendix A of this part performance tests, whichever is later.
 - (5) The owner or operator of an affected facility shall conduct an initial performance test for PM emissions as required under §60.8 of subpart A of this part. Compliance with the PM emission limit shall be determined by using the CEMS specified in paragraph (j) of this section to measure PM and calculating a 24-hour block arithmetic average emission concentration using EPA Reference Method 19 of appendix A of this part, section 4.1.
 - (6) Compliance with the PM emission limit shall be determined based on the 24-hour daily (block) average of the hourly arithmetic average emission concentrations using CEMS outlet data.
 - (7) At a minimum, valid CEMS hourly averages shall be obtained as specified in paragraphs (j)(7)(i) of this section for 75 percent of the total operating hours per 30-day rolling average.
 - (i) At least two data points per hour shall be used to calculate each 1-hour arithmetic average.

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(ii) [Reserved]

- (8) The 1-hour arithmetic averages required under paragraph (j)(7) of this section shall be expressed in ng/J or lb/MMBtu heat input and shall be used to calculate the boiler operating day daily arithmetic average emission concentrations. The 1-hour arithmetic averages shall be calculated using the data points required under §60.13(e)(2) of subpart A of this part.
- (9) All valid CEMS data shall be used in calculating average emission concentrations even if the minimum CEMS data requirements of paragraph (j)(7) of this section are not met.
- (10) The CEMS shall be operated according to Performance Specification 11 in appendix B of this part.
- (11) During the correlation testing runs of the CEMS required by Performance Specification 11 in appendix B of this part, PM and O₂ (or CO₂) data shall be collected concurrently (or within a 30-to 60-minute period) by both the continuous emission monitors and the test methods specified in paragraphs (j)(7)(i) of this section.
 - (i) For PM, EPA Reference Method 5, 5B, or 17 of appendix A of this part shall be used.
 - (ii) For O₂ (or CO₂), EPA reference Method 3, 3A, or 3B of appendix A of this part, as applicable shall be used.
- (12) Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with procedure 2 in appendix F of this part. Relative Response Audit's must be performed annually and Response Correlation Audits must be performed every 3 years.
- (13) When PM emissions data are not obtained because of CEMS breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data shall be obtained by using other monitoring systems as approved by the Administrator or EPA Reference Method 19 of appendix A of this part to provide, as necessary, valid emissions data for a minimum of 75 percent of total operating hours per 30-day rolling average.

§ 60.47b Emission monitoring for sulfur dioxide.

- (a) Except as provided in paragraphs (b), (f), and (h) of this section, the owner or operator of an affected facility subject to the SO₂ standards under §60.42b shall install, calibrate, maintain, and operate CEMS for measuring SO₂ concentrations and either O₂ or CO₂ concentrations and shall record the output of the systems. For units complying with the percent reduction standard, the SO₂ and either O₂ or CO₂ concentrations shall both be monitored at the inlet and outlet of the SO₂ control device. If the owner or operator has installed and certified SO₂ and O₂ or CO₂ CEMS according to the requirements of §75.20(c)(1) of this chapter and appendix A to part 75 of this chapter, and is continuing to meet the ongoing quality assurance requirements of §75.21 of this chapter and appendix B to part 75 of this chapter, those CEMS may be used to meet the requirements of this section, provided that:
 - (1) When relative accuracy testing is conducted, SO₂ concentration data and CO₂ (or O₂) data are collected simultaneously; and
 - (2) In addition to meeting the applicable SO₂ and CO₂ (or O₂) relative accuracy specifications in Figure 2 of appendix B to part 75 of this chapter, the relative accuracy (RA) standard in section 13.2 of Performance Specification 2 in appendix B to this part is met when the RA is calculated on a lb/MMBtu basis; and
 - (3) The reporting requirements of §60.49b are met. SO₂ and CO₂ (or O₂) data used to meet the requirements of §60.49b shall not include substitute data values derived from the missing data procedures in subpart D of part 75 of this chapter, nor shall the SO₂ data have been bias adjusted according to the procedures of part 75 of this chapter.
- (b) As an alternative to operating CEMS as required under paragraph (a) of this section, an owner or operator may elect to determine the average SO₂ emissions and percent reduction by:
 - (1) Collecting coal or oil samples in an as-fired condition at the inlet to the steam generating unit and analyzing them for sulfur and heat content according to Method 19 of appendix A of this part. Method 19 of appendix A of this part provides procedures for converting these measurements into the format to be used in calculating the average SO₂ input rate, or
 - (2) Measuring SO₂ according to Method 6B of appendix A of this part at the inlet or outlet to the SO₂ control system. An initial stratification test is required to verify the adequacy of the Method 6B of appendix A of this part sampling

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location. The stratification test shall consist of three paired runs of a suitable SO₂ and CO₂ measurement train operated at the candidate location and a second similar train operated according to the procedures in section 3.2 and the applicable procedures in section 7 of Performance Specification 2. Method 6B of appendix A of this part, Method 6A of appendix A of this part, or a combination of Methods 6 and 3 or 3B of appendix A of this part or Methods 6C and 3A of appendix A of this part are suitable measurement techniques. If Method 6B of appendix A of this part is used for the second train, sampling time and timer operation may be adjusted for the stratification test as long as an adequate sample volume is collected; however, both sampling trains are to be operated similarly. For the location to be adequate for Method 6B of appendix A of this part 24-hour tests, the mean of the absolute difference between the three paired runs must be less than 10 percent.

- (3) A daily SO₂ emission rate, E_D, shall be determined using the procedure described in Method 6A of appendix A of this part, section 7.6.2 (Equation 6A–8) and stated in ng/J (lb/MMBtu) heat input.
- (4) The mean 30-day emission rate is calculated using the daily measured values in ng/J (lb/MMBtu) for 30 successive steam generating unit operating days using equation 19–20 of Method 19 of appendix A of this part.
- (c) The owner or operator of an affected facility shall obtain emission data for at least 75 percent of the operating hours in at least 22 out of 30 successive boiler operating days. If this minimum data requirement is not met with a single monitoring system, the owner or operator of the affected facility shall supplement the emission data with data collected with other monitoring systems as approved by the Administrator or the reference methods and procedures as described in paragraph (b) of this section.
- (d) The 1-hour average SO₂ emission rates measured by the CEMS required by paragraph (a) of this section and required under §60.13(h) is expressed in ng/J or lb/MMBtu heat input and is used to calculate the average emission rates under §60.42(b). Each 1-hour average SO₂ emission rate must be based on 30 or more minutes of steam generating unit operation. The hourly averages shall be calculated according to §60.13(h)(2). Hourly SO₂ emission rates are not calculated if the affected facility is operated less than 30 minutes in a given clock hour and are not counted toward determination of a steam generating unit operating day.
- (e) The procedures under §60.13 shall be followed for installation, evaluation, and operation of the CEMS.
 - (1) Except as provided for in paragraph (e)(4) of this section, all CEMS shall be operated in accordance with the applicable procedures under Performance Specifications 1, 2, and 3 of appendix B of this part.
 - (2) Except as provided for in paragraph (e)(4) of this section, quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with Procedure 1 of appendix F of this part.
 - (3) For affected facilities combusting coal or oil, alone or in combination with other fuels, the span value of the SO₂ CEMS at the inlet to the SO₂ control device is 125 percent of the maximum estimated hourly potential SO₂ emissions of the fuel combusted, and the span value of the CEMS at the outlet to the SO₂ control device is 50 percent of the maximum estimated hourly potential SO₂ emissions of the fuel combusted. Alternatively, SO₂ span values determined according to section 2.1.1 in appendix A to part 75 of this chapter may be used.
 - (4) As an alternative to meeting the requirements of paragraphs (e)(1) and (e)(2) of this section, the owner or operator may elect to implement the following alternative data accuracy assessment procedures:
 - (i) For all required CO₂ and O₂ monitors and for SO₂ and NO_x monitors with span values less than 100 ppm, the daily calibration error test and calibration adjustment procedures described in sections 2.1.1 and 2.1.3 of appendix B to part 75 of this chapter may be followed instead of the CD assessment procedures in Procedure 1, section 4.1 of appendix F to this part. If this option is selected, the data validation and out-of-control provisions in sections 2.1.4 and 2.1.5 of appendix B to part 75 of this chapter shall be followed instead of the excessive CD and out-of-control criteria in Procedure 1, section 4.3 of appendix F to this part. For the purposes of data validation under this subpart, the excessive CD and out-of-control criteria in Procedure 1, section 4.3 of appendix F to this part shall apply to SO₂ and NO_x span values less than 100 ppm;
 - (ii) For all required CO₂ and O₂ monitors and for SO₂ and NO_x monitors with span values greater than 30 ppm, quarterly linearity checks may be performed in accordance with section 2.2.1 of appendix B to part 75 of this chapter, instead of performing the cylinder gas audits (CGAs) described in Procedure 1, section 5.1.2 of appendix F to this part. If this option is selected: The frequency of the linearity checks shall be as specified in

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section 2.2.1 of appendix B to part 75 of this chapter; the applicable linearity specifications in section 3.2 of appendix A to part 75 of this chapter shall be met; the data validation and out-of-control criteria in section 2.2.3 of appendix B to part 75 of this chapter shall be followed instead of the excessive audit inaccuracy and out-of-control criteria in Procedure 1, section 5.2 of appendix F to this part; and the grace period provisions in section 2.2.4 of appendix B to part 75 of this chapter shall apply. For the purposes of data validation under this subpart, the cylinder gas audits described in Procedure 1, section 5.1.2 of appendix F to this part shall be performed for SO₂ and NO_x span values less than or equal to 30 ppm; and

(iii) For SO₂, CO₂, and O₂ monitoring systems and for NO_x emission rate monitoring systems, RATAs may be performed in accordance with section 2.3 of appendix B to part 75 of this chapter instead of following the procedures described in Procedure 1, section 5.1.1 of appendix F to this part. If this option is selected: The frequency of each RATA shall be as specified in section 2.3.1 of appendix B to part 75 of this chapter; the applicable relative accuracy specifications shown in Figure 2 in appendix B to part 75 of this chapter shall be met; the data validation and out-of-control criteria in section 2.3.2 of appendix B to part 75 of this chapter shall be followed instead of the excessive audit inaccuracy and out-of-control criteria in Procedure 1, section 5.2 of appendix F to this part; and the grace period provisions in section 2.3.3 of appendix B to part 75 of this chapter shall apply. For the purposes of data validation under this subpart, the relative accuracy specification in section 13.2 of Performance Specification 2 in appendix B to this part shall be met on a lb/MMBtu basis for SO₂ (regardless of the SO₂ emission level during the RATA), and for NO_x when the average NO_x emission rate measured by the reference method during the RATA is less than 0.100 lb/MMBtu.

(f) The owner or operator of an affected facility that combusts very low sulfur oil or is demonstrating compliance under §60.45b(k) is not subject to the emission monitoring requirements under paragraph (a) of this section if the owner or operator maintains fuel records as described in §60.49b(r).

§ 60.48b Emission monitoring for particulate matter and nitrogen oxides.

- (a) Except as provided in paragraph (j) of this section, the owner or operator of an affected facility subject to the opacity standard under §60.43b shall install, calibrate, maintain, and operate a CEMS for measuring the opacity of emissions discharged to the atmosphere and record the output of the system.
- (b) Except as provided under paragraphs (g), (h), and (i) of this section, the owner or operator of an affected facility subject to a NO_x standard under §60.44b shall comply with either paragraphs (b)(1) or (b)(2) of this section.
- (1) Install, calibrate, maintain, and operate CEMS for measuring NO_x and O₂ (or CO₂) emissions discharged to the atmosphere, and shall record the output of the system; or
- (2) If the owner or operator has installed a NO_x emission rate CEMS to meet the requirements of part 75 of this chapter and is continuing to meet the ongoing requirements of part 75 of this chapter, that CEMS may be used to meet the requirements of this section, except that the owner or operator shall also meet the requirements of §60.49b. Data reported to meet the requirements of §60.49b shall not include data substituted using the missing data procedures in subpart D of part 75 of this chapter, nor shall the data have been bias adjusted according to the procedures of part 75 of this chapter.
- (c) The CEMS required under paragraph (b) of this section shall be operated and data recorded during all periods of operation of the affected facility except for CEMS breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments.
- (d) The 1-hour average NO_x emission rates measured by the continuous NO_x monitor required by paragraph (b) of this section and required under §60.13(h) shall be expressed in ng/J or lb/MMBtu heat input and shall be used to calculate the average emission rates under §60.44b. The 1-hour averages shall be calculated using the data points required under §60.13(h)(2).
- (e) The procedures under §60.13 shall be followed for installation, evaluation, and operation of the continuous monitoring systems.
- (1) For affected facilities combusting coal, wood or municipal-type solid waste, the span value for a continuous monitoring system for measuring opacity shall be between 60 and 80 percent.

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- (2) For affected facilities combusting coal, oil, or natural gas, the span value for NO_x is determined using one of the following procedures:

(i) Except as provided under paragraph (e)(2)(ii) of this section, NO_x span values shall be determined as follows:

Fuel	Span values for NO _x (ppm)
Natural gas	500.
Oil	500.
Coal	1,000.
Mixtures	$500(x + y) + 1,000z$.

Where:

x = Fraction of total heat input derived from natural gas;

y = Fraction of total heat input derived from oil; and

z = Fraction of total heat input derived from coal.

(ii) As an alternative to meeting the requirements of paragraph (e)(2)(i) of this section, the owner or operator of an affected facility may elect to use the NO_x span values determined according to section 2.1.2 in appendix A to part 75 of this chapter.

- (3) All span values computed under paragraph (e)(2)(i) of this section for combusting mixtures of regulated fuels are rounded to the nearest 500 ppm. Span values computed under paragraph (e)(2)(ii) of this section shall be rounded off according to section 2.1.2 in appendix A to part 75 of this chapter.

- (f) When NO_x emission data are not obtained because of CEMS breakdowns, repairs, calibration checks and zero and span adjustments, emission data will be obtained by using standby monitoring systems, Method 7 of appendix A of this part, Method 7A of appendix A of this part, or other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days.
- (g) The owner or operator of an affected facility that has a heat input capacity of 73 MW (250 MMBtu/hr) or less, and that has an annual capacity factor for residual oil having a nitrogen content of 0.30 weight percent or less, natural gas, distillate oil, or any mixture of these fuels, greater than 10 percent (0.10) shall:
- (1) Comply with the provisions of paragraphs (b), (c), (d), (e)(2), (e)(3), and (f) of this section; or
 - (2) Monitor steam generating unit operating conditions and predict NO_x emission rates as specified in a plan submitted pursuant to §60.49b(c).
- (h) The owner or operator of a duct burner, as described in §60.41b, that is subject to the NO_x standards of §60.44b(a)(4) or §60.44b(l) is not required to install or operate a continuous emissions monitoring system to measure NO_x emissions.
- (i) The owner or operator of an affected facility described in §60.44b(j) or §60.44b(k) is not required to install or operate a CEMS for measuring NO_x emissions.
- (j) The owner or operator of an affected facility that meets the conditions in either paragraph (j)(1), (2), (3), (4), or (5) of this section is not required to install or operate a COMS for measuring opacity if:
- (1) The affected facility uses a PM CEMS to monitor PM emissions; or
 - (2) The affected facility burns only liquid (excluding residual oil) or gaseous fuels with potential SO₂ emissions rates of 26 ng/J (0.060 lb/MMBtu) or less and does not use a post-combustion technology to reduce SO₂ or PM emissions.

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The owner or operator must maintain fuel records of the sulfur content of the fuels burned, as described under §60.49b(r); or

- (3) The affected facility burns coke oven gas alone or in combination with fuels meeting the criteria in paragraph (j)(2) of this section and does not use a post-combustion technology to reduce SO₂ or PM emissions; or
- (4) The affected facility does not use post-combustion technology (except a wet scrubber) for reducing PM, SO₂, or carbon monoxide (CO) emissions, burns only gaseous fuels or fuel oils that contain less than or equal to 0.30 weight percent sulfur, and is operated such that emissions of CO to the atmosphere from the affected facility are maintained at levels less than or equal to 0.15 lb/MMBtu on a steam generating unit operating day average basis. Owners and operators of affected facilities electing to comply with this paragraph must demonstrate compliance according to the procedures specified in paragraphs (j)(4)(i) through (iv) of this section.
 - (i) You must monitor CO emissions using a CEMS according to the procedures specified in paragraphs (j)(4)(i)(A) through (D) of this section.
 - (A) The CO CEMS must be installed, certified, maintained, and operated according to the provisions in §60.58b(i)(3) of subpart Eb of this part.
 - (B) Each 1-hour CO emissions average is calculated using the data points generated by the CO CEMS expressed in parts per million by volume corrected to 3 percent oxygen (dry basis).
 - (C) At a minimum, valid 1-hour CO emissions averages must be obtained for at least 90 percent of the operating hours on a 30-day rolling average basis. At least two data points per hour must be used to calculate each 1-hour average.
 - (D) Quarterly accuracy determinations and daily calibration drift tests for the CO CEMS must be performed in accordance with procedure 1 in appendix F of this part.
 - (ii) You must calculate the 1-hour average CO emissions levels for each steam generating unit operating day by multiplying the average hourly CO output concentration measured by the CO CEMS times the corresponding average hourly flue gas flow rate and divided by the corresponding average hourly heat input to the affected source. The 24-hour average CO emission level is determined by calculating the arithmetic average of the hourly CO emission levels computed for each steam generating unit operating day.
 - (iii) You must evaluate the preceding 24-hour average CO emission level each steam generating unit operating day excluding periods of affected source startup, shutdown, or malfunction. If the 24-hour average CO emission level is greater than 0.15 lb/MMBtu, you must initiate investigation of the relevant equipment and control systems within 24 hours of the first discovery of the high emission incident and, take the appropriate corrective action as soon as practicable to adjust control settings or repair equipment to reduce the 24-hour average CO emission level to 0.15 lb/MMBtu or less.
 - (iv) You must record the CO measurements and calculations performed according to paragraph (j)(4) of this section and any corrective actions taken. The record of corrective action taken must include the date and time during which the 24-hour average CO emission level was greater than 0.15 lb/MMBtu, and the date, time, and description of the corrective action.
- (5) The affected facility burns only gaseous fuels or fuel oils that contain less than or equal to 0.30 weight percent sulfur and operates according to a written site-specific monitoring plan approved by the appropriate delegated permitting authority. This monitoring plan must include procedures and criteria for establishing and monitoring specific parameters for the affected facility indicative of compliance with the opacity standard.
- (k) Owners or operators complying with the PM emission limit by using a PM CEMS monitor instead of monitoring opacity must calibrate, maintain, and operate a CEMS, and record the output of the system, for PM emissions discharged to the atmosphere as specified in §60.46b(j). The CEMS specified in paragraph §60.46b(j) shall be operated and data recorded during all periods of operation of the affected facility except for CEMS breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments.

§ 60.49b Reporting and recordkeeping requirements.

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- (a) The owner or operator of each affected facility shall submit notification of the date of initial startup, as provided by §60.7. This notification shall include:
- (1) The design heat input capacity of the affected facility and identification of the fuels to be combusted in the affected facility;
 - (2) If applicable, a copy of any federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under §§60.42b(d)(1), 60.43b(a)(2), (a)(3)(iii), (c)(2)(ii), (d)(2)(iii), 60.44b(c), (d), (e), (i), (j), (k), 60.45b(d), (g), 60.46b(h), or 60.48b(i);
 - (3) The annual capacity factor at which the owner or operator anticipates operating the facility based on all fuels fired and based on each individual fuel fired; and
 - (4) Notification that an emerging technology will be used for controlling emissions of SO₂. The Administrator will examine the description of the emerging technology and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of §60.42b(a) unless and until this determination is made by the Administrator.
- (b) The owner or operator of each affected facility subject to the SO₂, PM, and/or NO_x emission limits under §§60.42b, 60.43b, and 60.44b shall submit to the Administrator the performance test data from the initial performance test and the performance evaluation of the CEMS using the applicable performance specifications in appendix B of this part. The owner or operator of each affected facility described in §60.44b(j) or §60.44b(k) shall submit to the Administrator the maximum heat input capacity data from the demonstration of the maximum heat input capacity of the affected facility.
- (c) The owner or operator of each affected facility subject to the NO_x standard of §60.44b who seeks to demonstrate compliance with those standards through the monitoring of steam generating unit operating conditions under the provisions of §60.48b(g)(2) shall submit to the Administrator for approval a plan that identifies the operating conditions to be monitored under §60.48b(g)(2) and the records to be maintained under §60.49b(j). This plan shall be submitted to the Administrator for approval within 360 days of the initial startup of the affected facility. If the plan is approved, the owner or operator shall maintain records of predicted nitrogen oxide emission rates and the monitored operating conditions, including steam generating unit load, identified in the plan. The plan shall:
- (1) Identify the specific operating conditions to be monitored and the relationship between these operating conditions and NO_x emission rates (*i.e.* , ng/J or lbs/MMBtu heat input). Steam generating unit operating conditions include, but are not limited to, the degree of staged combustion (*i.e.* , the ratio of primary air to secondary and/or tertiary air) and the level of excess air (*i.e.* , flue gas O₂ level);
 - (2) Include the data and information that the owner or operator used to identify the relationship between NO_x emission rates and these operating conditions; and
 - (3) Identify how these operating conditions, including steam generating unit load, will be monitored under §60.48b(g) on an hourly basis by the owner or operator during the period of operation of the affected facility; the quality assurance procedures or practices that will be employed to ensure that the data generated by monitoring these operating conditions will be representative and accurate; and the type and format of the records of these operating conditions, including steam generating unit load, that will be maintained by the owner or operator under §60.49b(j).
- (d) The owner or operator of an affected facility shall record and maintain records of the amounts of each fuel combusted during each day and calculate the annual capacity factor individually for coal, distillate oil, residual oil, natural gas, wood, and municipal-type solid waste for the reporting period. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month.
- (e) For an affected facility that combusts residual oil and meets the criteria under §§60.46b(e)(4), 60.44b(j), or (k), the owner or operator shall maintain records of the nitrogen content of the residual oil combusted in the affected facility and calculate the average fuel nitrogen content for the reporting period. The nitrogen content shall be determined using ASTM Method D4629 (incorporated by reference, see §60.17), or fuel suppliers. If residual oil blends are being combusted, fuel nitrogen specifications may be prorated based on the ratio of residual oils of different nitrogen content in the fuel blend.

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- (f) For facilities subject to the opacity standard under §60.43b, the owner or operator shall maintain records of opacity.
- (g) Except as provided under paragraph (p) of this section, the owner or operator of an affected facility subject to the NO_x standards under §60.44b shall maintain records of the following information for each steam generating unit operating day:
- (1) Calendar date;
 - (2) The average hourly NO_x emission rates (expressed as NO₂) (ng/J or lb/MMBtu heat input) measured or predicted;
 - (3) The 30-day average NO_x emission rates (ng/J or lb/MMBtu heat input) calculated at the end of each steam generating unit operating day from the measured or predicted hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days;
 - (4) Identification of the steam generating unit operating days when the calculated 30-day average NO_x emission rates are in excess of the NO_x emissions standards under §60.44b, with the reasons for such excess emissions as well as a description of corrective actions taken;
 - (5) Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken;
 - (6) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data;
 - (7) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted;
 - (8) Identification of the times when the pollutant concentration exceeded full span of the CEMS;
 - (9) Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specification 2 or 3; and
 - (10) Results of daily CEMS drift tests and quarterly accuracy assessments as required under appendix F, Procedure 1 of this part.
- (h) The owner or operator of any affected facility in any category listed in paragraphs (h)(1) or (2) of this section is required to submit excess emission reports for any excess emissions that occurred during the reporting period.
- (1) Any affected facility subject to the opacity standards under §60.43b(e) or to the operating parameter monitoring requirements under §60.13(i)(1).
 - (2) Any affected facility that is subject to the NO_x standard of §60.44b, and that:
 - (i) Combusts natural gas, distillate oil, or residual oil with a nitrogen content of 0.3 weight percent or less; or
 - (ii) Has a heat input capacity of 73 MW (250 MMBtu/hr) or less and is required to monitor NO_x emissions on a continuous basis under §60.48b(g)(1) or steam generating unit operating conditions under §60.48b(g)(2).
 - (3) For the purpose of §60.43b, excess emissions are defined as all 6-minute periods during which the average opacity exceeds the opacity standards under §60.43b(f).
 - (4) For purposes of §60.48b(g)(1), excess emissions are defined as any calculated 30-day rolling average NO_x emission rate, as determined under §60.46b(e), that exceeds the applicable emission limits in §60.44b.
 - (i) The owner or operator of any affected facility subject to the continuous monitoring requirements for NO_x under §60.48(b) shall submit reports containing the information recorded under paragraph (g) of this section.
- (j) The owner or operator of any affected facility subject to the SO₂ standards under §60.42b shall submit reports.
- (k) For each affected facility subject to the compliance and performance testing requirements of §60.45b and the reporting requirement in paragraph (j) of this section, the following information shall be reported to the Administrator:
- (1) Calendar dates covered in the reporting period;

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- (2) Each 30-day average SO₂ emission rate (ng/J or lb/MMBtu heat input) measured during the reporting period, ending with the last 30-day period; reasons for noncompliance with the emission standards; and a description of corrective actions taken;
 - (3) Each 30-day average percent reduction in SO₂ emissions calculated during the reporting period, ending with the last 30-day period; reasons for noncompliance with the emission standards; and a description of corrective actions taken;
 - (4) Identification of the steam generating unit operating days that coal or oil was combusted and for which SO₂ or diluent (O₂ or CO₂) data have not been obtained by an approved method for at least 75 percent of the operating hours in the steam generating unit operating day; justification for not obtaining sufficient data; and description of corrective action taken;
 - (5) Identification of the times when emissions data have been excluded from the calculation of average emission rates; justification for excluding data; and description of corrective action taken if data have been excluded for periods other than those during which coal or oil were not combusted in the steam generating unit;
 - (6) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted;
 - (7) Identification of times when hourly averages have been obtained based on manual sampling methods;
 - (8) Identification of the times when the pollutant concentration exceeded full span of the CEMS;
 - (9) Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specification 2 or 3;
 - (10) Results of daily CEMS drift tests and quarterly accuracy assessments as required under appendix F, Procedure 1 of this part; and
 - (11) The annual capacity factor of each fired as provided under paragraph (d) of this section.
- (I) For each affected facility subject to the compliance and performance testing requirements of §60.45b(d) and the reporting requirements of paragraph (j) of this section, the following information shall be reported to the Administrator:
- (1) Calendar dates when the facility was in operation during the reporting period;
 - (2) The 24-hour average SO₂ emission rate measured for each steam generating unit operating day during the reporting period that coal or oil was combusted, ending in the last 24-hour period in the quarter; reasons for noncompliance with the emission standards; and a description of corrective actions taken;
 - (3) Identification of the steam generating unit operating days that coal or oil was combusted for which SO₂ or diluent (O₂ or CO₂) data have not been obtained by an approved method for at least 75 percent of the operating hours; justification for not obtaining sufficient data; and description of corrective action taken;
 - (4) Identification of the times when emissions data have been excluded from the calculation of average emission rates; justification for excluding data; and description of corrective action taken if data have been excluded for periods other than those during which coal or oil were not combusted in the steam generating unit;
 - (5) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted;
 - (6) Identification of times when hourly averages have been obtained based on manual sampling methods;
 - (7) Identification of the times when the pollutant concentration exceeded full span of the CEMS;
 - (8) Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specification 2 or 3; and
 - (9) Results of daily CEMS drift tests and quarterly accuracy assessments as required under Procedure 1 of appendix F 1 of this part. If the owner or operator elects to implement the alternative data assessment procedures described in §§60.47b(e)(4)(i) through (e)(4)(iii), each data assessment report shall include a summary of the results of all of the RATAs, linearity checks, CGAs, and calibration error or drift assessments required by §§60.47b(e)(4)(i) through (e)(4)(iii).

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- (m) For each affected facility subject to the SO₂ standards under §60.42(b) for which the minimum amount of data required under §60.47b(f) were not obtained during the reporting period, the following information is reported to the Administrator in addition to that required under paragraph (k) of this section:
- (1) The number of hourly averages available for outlet emission rates and inlet emission rates;
 - (2) The standard deviation of hourly averages for outlet emission rates and inlet emission rates, as determined in Method 19 of appendix A of this part, section 7;
 - (3) The lower confidence limit for the mean outlet emission rate and the upper confidence limit for the mean inlet emission rate, as calculated in Method 19 of appendix A of this part, section 7; and
 - (4) The ratio of the lower confidence limit for the mean outlet emission rate and the allowable emission rate, as determined in Method 19 of appendix A of this part, section 7.
- (n) If a percent removal efficiency by fuel pretreatment (*i.e.* , %R_f) is used to determine the overall percent reduction (*i.e.* , %R_o) under §60.45b, the owner or operator of the affected facility shall submit a signed statement with the report.
- (1) Indicating what removal efficiency by fuel pretreatment (*i.e.* , %R_f) was credited during the reporting period;
 - (2) Listing the quantity, heat content, and date each pre-treated fuel shipment was received during the reporting period, the name and location of the fuel pretreatment facility; and the total quantity and total heat content of all fuels received at the affected facility during the reporting period;
 - (3) Documenting the transport of the fuel from the fuel pretreatment facility to the steam generating unit; and
 - (4) Including a signed statement from the owner or operator of the fuel pretreatment facility certifying that the percent removal efficiency achieved by fuel pretreatment was determined in accordance with the provisions of Method 19 of appendix A of this part and listing the heat content and sulfur content of each fuel before and after fuel pretreatment.
- (o) All records required under this section shall be maintained by the owner or operator of the affected facility for a period of 2 years following the date of such record.
- (p) The owner or operator of an affected facility described in §60.44b(j) or (k) shall maintain records of the following information for each steam generating unit operating day:
- (1) Calendar date;
 - (2) The number of hours of operation; and
 - (3) A record of the hourly steam load.
- (q) The owner or operator of an affected facility described in §60.44b(j) or §60.44b(k) shall submit to the Administrator a report containing:
- (1) The annual capacity factor over the previous 12 months;
 - (2) The average fuel nitrogen content during the reporting period, if residual oil was fired; and
 - (3) If the affected facility meets the criteria described in §60.44b(j), the results of any NO_x emission tests required during the reporting period, the hours of operation during the reporting period, and the hours of operation since the last NO_x emission test.
- (r) The owner or operator of an affected facility who elects to use the fuel based compliance alternatives in §60.42b or §60.43b shall either:
- (1) The owner or operator of an affected facility who elects to demonstrate that the affected facility combusts only very low sulfur oil under §60.42b(j)(2) or §60.42b(k)(2) shall obtain and maintain at the affected facility fuel receipts from the fuel supplier that certify that the oil meets the definition of distillate oil as defined in §60.41b and the applicable sulfur limit. For the purposes of this section, the distillate oil need not meet the fuel nitrogen content specification in the definition of distillate oil. Reports shall be submitted to the Administrator certifying that only very low sulfur oil meeting this definition and/or pipeline quality natural gas was combusted in the affected facility during the reporting period; or

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- (2) The owner or operator of an affected facility who elects to demonstrate compliance based on fuel analysis in §60.42b or §60.43b shall develop and submit a site-specific fuel analysis plan to the Administrator for review and approval no later than 60 days before the date you intend to demonstrate compliance. Each fuel analysis plan shall include a minimum initial requirement of weekly testing and each analysis report shall contain, at a minimum, the following information:

- (i) The potential sulfur emissions rate of the representative fuel mixture in ng/J heat input;
- (ii) The method used to determine the potential sulfur emissions rate of each constituent of the mixture. For distillate oil and natural gas a fuel receipt or tariff sheet is acceptable;
- (iii) The ratio of different fuels in the mixture; and
- (iv) The owner or operator can petition the Administrator to approve monthly or quarterly sampling in place of weekly sampling.

- (s) Facility specific NO_x standard for Cytec Industries Fortier Plant's C.AOG incinerator located in Westwego, Louisiana:

(1) *Definitions*.

Oxidation zone is defined as the portion of the C.AOG incinerator that extends from the inlet of the oxidizing zone combustion air to the outlet gas stack.

Reducing zone is defined as the portion of the C.AOG incinerator that extends from the burner section to the inlet of the oxidizing zone combustion air.

Total inlet air is defined as the total amount of air introduced into the C.AOG incinerator for combustion of natural gas and chemical by-product waste and is equal to the sum of the air flow into the reducing zone and the air flow into the oxidation zone.

(2) *Standard for nitrogen oxides*.

- (i) When fossil fuel alone is combusted, the NO_x emission limit for fossil fuel in §60.44b(a) applies.
- (ii) When natural gas and chemical by-product waste are simultaneously combusted, the NO_x emission limit is 289 ng/J (0.67 lb/MMBtu) and a maximum of 81 percent of the total inlet air provided for combustion shall be provided to the reducing zone of the C.AOG incinerator.

(3) *Emission monitoring*.

- (i) The percent of total inlet air provided to the reducing zone shall be determined at least every 15 minutes by measuring the air flow of all the air entering the reducing zone and the air flow of all the air entering the oxidation zone, and compliance with the percentage of total inlet air that is provided to the reducing zone shall be determined on a 3-hour average basis.
- (ii) The NO_x emission limit shall be determined by the compliance and performance test methods and procedures for NO_x in §60.46b(i).
- (iii) The monitoring of the NO_x emission limit shall be performed in accordance with §60.48b.

(4) *Reporting and recordkeeping requirements*.

- (i) The owner or operator of the C.AOG incinerator shall submit a report on any excursions from the limits required by paragraph (a)(2) of this section to the Administrator with the quarterly report required by paragraph (i) of this section.
- (ii) The owner or operator of the C.AOG incinerator shall keep records of the monitoring required by paragraph (a)(3) of this section for a period of 2 years following the date of such record.
- (iii) The owner or operator of the C.AOG incinerator shall perform all the applicable reporting and recordkeeping requirements of this section.

- (t) Facility-specific NO_x standard for Rohm and Haas Kentucky Incorporated's Boiler No. 100 located in Louisville, Kentucky:

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(1) *Definitions .*

Air ratio control damper is defined as the part of the low NO_x burner that is adjusted to control the split of total combustion air delivered to the reducing and oxidation portions of the combustion flame.

Flue gas recirculation line is defined as the part of Boiler No. 100 that recirculates a portion of the boiler flue gas back into the combustion air.

(2) *Standard for nitrogen oxides .*

- (i) When fossil fuel alone is combusted, the NO_x emission limit for fossil fuel in §60.44b(a) applies.
- (ii) When fossil fuel and chemical by-product waste are simultaneously combusted, the NO_x emission limit is 473 ng/J (1.1 lb/MMBtu), and the air ratio control damper tee handle shall be at a minimum of 5 inches (12.7 centimeters) out of the boiler, and the flue gas recirculation line shall be operated at a minimum of 10 percent open as indicated by its valve opening position indicator.

(3) *Emission monitoring for nitrogen oxides .*

- (i) The air ratio control damper tee handle setting and the flue gas recirculation line valve opening position indicator setting shall be recorded during each 8-hour operating shift.
- (ii) The NO_x emission limit shall be determined by the compliance and performance test methods and procedures for NO_x in §60.46b.
- (iii) The monitoring of the NO_x emission limit shall be performed in accordance with §60.48b.

(4) *Reporting and recordkeeping requirements .*

- (i) The owner or operator of Boiler No. 100 shall submit a report on any excursions from the limits required by paragraph (b)(2) of this section to the Administrator with the quarterly report required by §60.49b(i).
- (ii) The owner or operator of Boiler No. 100 shall keep records of the monitoring required by paragraph (b)(3) of this section for a period of 2 years following the date of such record.
- (iii) The owner or operator of Boiler No. 100 shall perform all the applicable reporting and recordkeeping requirements of §60.49b.

(u) *Site-specific standard for Merck & Co., Inc.'s Stonewall Plant in Elkton, Virginia .*

- (1) This paragraph (u) applies only to the pharmaceutical manufacturing facility, commonly referred to as the Stonewall Plant, located at Route 340 South, in Elkton, Virginia ("site") and only to the natural gas-fired boilers installed as part of the powerhouse conversion required pursuant to 40 CFR 52.2454(g). The requirements of this paragraph shall apply, and the requirements of §§60.40b through 60.49b(t) shall not apply, to the natural gas-fired boilers installed pursuant to 40 CFR 52.2454(g).
 - (i) The site shall equip the natural gas-fired boilers with low NO_x technology.
 - (ii) The site shall install, calibrate, maintain, and operate a continuous monitoring and recording system for measuring NO_x emissions discharged to the atmosphere and opacity using a continuous emissions monitoring system or a predictive emissions monitoring system.
 - (iii) Within 180 days of the completion of the powerhouse conversion, as required by 40 CFR 52.2454, the site shall perform a performance test to quantify criteria pollutant emissions.

(2) [Reserved]

- (v) The owner or operator of an affected facility may submit electronic quarterly reports for SO₂ and/or NO_x and/or opacity in lieu of submitting the written reports required under paragraphs (h), (i), (j), (k) or (l) of this section. The format of each quarterly electronic report shall be coordinated with the permitting authority. The electronic report(s) shall be submitted no later than 30 days after the end of the calendar quarter and shall be accompanied by a certification statement from the owner or operator, indicating whether compliance with the applicable emission standards and minimum data requirements of this subpart was achieved during the reporting period. Before submitting reports in the

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electronic format, the owner or operator shall coordinate with the permitting authority to obtain their agreement to submit reports in this alternative format.

- (w) The reporting period for the reports required under this subpart is each 6 month period. All reports shall be submitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period.
- (x) Facility-specific NO_x standard for Weyerhaeuser Company's No. 2 Power Boiler located in New Bern, North Carolina:
- (1) *Standard for nitrogen oxides .*
 - (i) When fossil fuel alone is combusted, the NO_x emission limit for fossil fuel in §60.44b(a) applies.
 - (ii) When fossil fuel and chemical by-product waste are simultaneously combusted, the NO_x emission limit is 215 ng/J (0.5 lb/MMBtu).
 - (2) *Emission monitoring for nitrogen oxides .*
 - (i) The NO_x emissions shall be determined by the compliance and performance test methods and procedures for NO_x in §60.46b.
 - (ii) The monitoring of the NO_x emissions shall be performed in accordance with §60.48b.
 - (3) *Reporting and recordkeeping requirements .*
 - (i) The owner or operator of the No. 2 Power Boiler shall submit a report on any excursions from the limits required by paragraph (x)(2) of this section to the Administrator with the quarterly report required by §60.49b(i).
 - (ii) The owner or operator of the No. 2 Power Boiler shall keep records of the monitoring required by paragraph (x)(3) of this section for a period of 2 years following the date of such record.
 - (iii) The owner or operator of the No. 2 Power Boiler shall perform all the applicable reporting and recordkeeping requirements of §60.49b.
- (y) Facility-specific NO_x standard for INEOS USA's AOGI located in Lima, Ohio:
- (1) *Standard for NO_x.*
 - (i) When fossil fuel alone is combusted, the NO_x emission limit for fossil fuel in §60.44b(a) applies.
 - (ii) When fossil fuel and chemical byproduct/waste are simultaneously combusted, the NO_x emission limit is 645 ng/J (1.5 lb/MMBtu).
 - (2) *Emission monitoring for NO_x.*
 - (i) The NO_x emissions shall be determined by the compliance and performance test methods and procedures for NO_x in §60.46b.
 - (ii) The monitoring of the NO_x emissions shall be performed in accordance with §60.48b.
 - (3) *Reporting and recordkeeping requirements .*
 - (i) The owner or operator of the AOGI shall submit a report on any excursions from the limits required by paragraph (y)(2) of this section to the Administrator with the quarterly report required by paragraph (i) of this section.
 - (ii) The owner or operator of the AOGI shall keep records of the monitoring required by paragraph (y)(3) of this section for a period of 2 years following the date of such record.
 - (iii) The owner or operator of the AOGI shall perform all the applicable reporting and recordkeeping requirements of this section.

STANDARDS OF PERFORMANCE FOR COAL PREPARATION PLANTS
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E.U. ID No.	Brief Description
-005	Solid Fuel Handling System

Federal Regulations Adopted by Reference

In accordance with Rule 62-204.800, F.A.C., the following federal regulation in Title 40 of the Code of Federal Regulations (CFR) was adopted by reference. The original federal rule numbering has been retained.

Federal Revision Date: October 17, 2000

Rule Effective Date: June 21, 2002

Standardized Conditions Revision Date: April 18, 2008

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§ 60.250 Applicability and designation of affected facility.

§ 60.251 Definitions.

§ 60.252 Standards for particulate matter.

§ 60.253 Monitoring of operations.

§ 60.254 Test methods and procedures.

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§ 60.250 Applicability and designation of affected facility.

- (a) The provisions of this subpart are applicable to any of the following affected facilities in coal preparation plants which process more than 181 Mg (200 tons) per day: Thermal dryers, pneumatic coal-cleaning equipment (air tables), coal processing and conveying equipment (including breakers and crushers), coal storage systems, and coal transfer and loading systems.
- (b) Any facility under paragraph (a) of this section that commences construction or modification after October 24, 1974, is subject to the requirements of this subpart.

[42 FR 37938, July 25, 1977; 42 FR 44812, Sept. 7, 1977, as amended at 65 FR 61757, Oct. 17, 2000]

§ 60.251 Definitions.

As used in this subpart, all terms not defined herein have the meaning given them in the Act and in subpart A of this part.

- (a) *Coal preparation plant* means any facility (excluding underground mining operations) which prepares coal by one or more of the following processes: breaking, crushing, screening, wet or dry cleaning, and thermal drying.
- (b) *Bituminous coal* means solid fossil fuel classified as bituminous coal by ASTM Designation D388-77, 90, 91, 95, or 98a (incorporated by reference—see §60.17).
- (c) *Coal* means all solid fossil fuels classified as anthracite, bituminous, subbituminous, or lignite by ASTM Designation D388-77, 90, 91, 95, or 98a (incorporated by reference—see §60.17).
- (d) *Cyclonic flow* means a spiraling movement of exhaust gases within a duct or stack.
- (e) *Thermal dryer* means any facility in which the moisture content of bituminous coal is reduced by contact with a heated gas stream which is exhausted to the atmosphere.
- (f) *Pneumatic coal-cleaning equipment* means any facility which classifies bituminous coal by size or separates bituminous coal from refuse by application of air stream(s).
- (g) *Coal processing and conveying equipment* means any machinery used to reduce the size of coal or to separate coal from refuse, and the equipment used to convey coal to or remove coal and refuse from the machinery. This includes, but is not limited to, breakers, crushers, screens, and conveyor belts.

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- (h) *Coal storage system* means any facility used to store coal except for open storage piles.
- (i) *Transfer and loading system* means any facility used to transfer and load coal for shipment.

[41 FR 2234, Jan. 15, 1976, as amended at 48 FR 3738, Jan. 27, 1983; 65 FR 61757, Oct. 17, 2000]

§ 60.252 Standards for particulate matter.

- (a) On and after the date on which the performance test required to be conducted by §60.8 is completed, an owner or operator subject to the provisions of this subpart shall not cause to be discharged into the atmosphere from any thermal dryer gases which:
 - (1) Contain particulate matter in excess of 0.070 g/dscm (0.031 gr/dscf).
 - (2) Exhibit 20 percent opacity or greater.
- (b) On and after the date on which the performance test required to be conducted by §60.8 is completed, an owner or operator subject to the provisions of this subpart shall not cause to be discharged into the atmosphere from any pneumatic coal cleaning equipment, gases which:
 - (1) Contain particulate matter in excess of 0.040 g/dscm (0.017 gr/dscf).
 - (2) Exhibit 10 percent opacity or greater.
- (c) On and after the date on which the performance test required to be conducted by §60.8 is completed, an owner or operator subject to the provisions of this subpart shall not cause to be discharged into the atmosphere from any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal, gases which exhibit 20 percent opacity or greater.

[41 FR 2234, Jan. 15, 1976, as amended at 65 FR 61757, Oct. 17, 2000]

§ 60.253 Monitoring of operations.

- (a) The owner or operator of any thermal dryer shall install, calibrate, maintain, and continuously operate monitoring devices as follows:
 - (1) A monitoring device for the measurement of the temperature of the gas stream at the exit of the thermal dryer on a continuous basis. The monitoring device is to be certified by the manufacturer to be accurate within $\pm 1.7^{\circ}\text{C}$ ($\pm 3^{\circ}\text{F}$).
 - (2) For affected facilities that use venturi scrubber emission control equipment:
 - (i) A monitoring device for the continuous measurement of the pressure loss through the venturi constriction of the control equipment. The monitoring device is to be certified by the manufacturer to be accurate within ± 1 inch water gauge.
 - (ii) A monitoring device for the continuous measurement of the water supply pressure to the control equipment. The monitoring device is to be certified by the manufacturer to be accurate within ± 5 percent of design water supply pressure. The pressure sensor or tap must be located close to the water discharge point. The Administrator may be consulted for approval of alternative locations.
- (b) All monitoring devices under paragraph (a) of this section are to be recalibrated annually in accordance with procedures under §60.13(b).

[41 FR 2234, Jan. 15, 1976, as amended at 54 FR 6671, Feb. 14, 1989; 65 FR 61757, Oct. 17, 2000]

§ 60.254 Test methods and procedures.

- (a) In conducting the performance tests required in §60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in §60.8(b).
- (b) The owner or operator shall determine compliance with the particulate matter standards in §60.252 as follows:

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- (1) Method 5 shall be used to determine the particulate matter concentration. The sampling time and sample volume for each run shall be at least 60 minutes and 0.85 dscm (30 dscf). Sampling shall begin no less than 30 minutes after startup and shall terminate before shutdown procedures begin.
- (2) Method 9 and the procedures in §60.11 shall be used to determine opacity.

[54 FR 6671, Feb. 14, 1989]

APPENDIX 40 CFR 60 SUBPART GG

STANDARDS OF PERFORMANCE FOR STATIONARY GAS TURBINES

(version dated 7/8/2004)

E.U. ID No.	Brief Description
-001	260 MW Combined Cycle Gas Turbine No. 1
-009	Nominal 165 MW Simple Cycle Turbine No. 2
-010	Nominal 165 MW Simple Cycle Turbine No. 3
-011	Nominal 165 MW Simple Cycle Turbine No. 4
-012	Nominal 165 MW Simple Cycle Turbine No. 5

[Source: 44 FR 52798, Sept. 10, 1979, as amended at 52 FR 42434, Nov. 5, 1987; 65 FR 61759, Oct. 17, 2000; 69 FR 41346, July 8, 2004]

In accordance with Rule 62-204.800(8), F.A.C., the following emissions units are subject to the applicable requirements of 40 CFR 60 Subpart GG. For these requirements, the original rule numbering has been retained.

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§ 60.330 Applicability and designation of affected facility.

(a) The provisions of this subpart are applicable to the following affected facilities: All stationary gas turbines with a heat input at peak load equal to or greater than 10.7 gigajoules (10 million Btu) per hour, based on the lower heating value of the fuel fired.

(b) Any facility under paragraph (a) of this section which commences construction, modification, or reconstruction after October 3, 1977, is subject to the requirements of this part except as provided in paragraphs (e) and (j) of § 60.332.

§ 60.331 Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Act and in subpart A of this part.

(a) *Stationary gas turbine* means any simple cycle gas turbine, regenerative cycle gas turbine or any gas turbine portion of a combined cycle steam/electric generating system that is not self propelled. It may, however, be mounted on a vehicle for portability.

(b) *Simple cycle gas turbine* means any stationary gas turbine which does not recover heat from the gas turbine exhaust gases to preheat the inlet combustion air to the gas turbine, or which does not recover heat from the gas turbine exhaust gases to heat water or generate steam.

(c) *Regenerative cycle gas turbine* means any stationary gas turbine which recovers heat from the gas turbine exhaust gases to preheat the inlet combustion air to the gas turbine.

(d) *Combined cycle gas turbine* means any stationary gas turbine which recovers heat from the gas turbine exhaust gases to heat water or generate steam.

(e) *Emergency gas turbine* means any stationary gas turbine which operates as a mechanical or electrical power source only when the primary power source for a facility has been rendered inoperable by an emergency situation.

(f) *Ice fog* means an atmospheric suspension of highly reflective ice crystals.

(g) *ISO standard day conditions* means 288 degrees Kelvin, 60 percent relative humidity and 101.3 kilopascals pressure.

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- (h) *Efficiency* means the gas turbine manufacturer's rated heat rate at peak load in terms of heat input per unit of power output based on the lower heating value of the fuel.
- (i) *Peak load* means 100 percent of the manufacturer's design capacity of the gas turbine at ISO standard day conditions.
- (j) *Base load* means the load level at which a gas turbine is normally operated.
- (k) *Fire-fighting turbine* means any stationary gas turbine that is used solely to pump water for extinguishing fires.
- (l) *Turbines employed in oil/gas production or oil/gas transportation* means any stationary gas turbine used to provide power to extract crude oil/natural gas from the earth or to move crude oil/natural gas, or products refined from these substances through pipelines.
- (m) A *Metropolitan Statistical Area* or *MSA* as defined by the Department of Commerce.
- (n) *Offshore platform gas turbines* means any stationary gas turbine located on a platform in an ocean.
- (o) *Garrison facility* means any permanent military installation.
- (p) *Gas turbine model* means a group of gas turbines having the same nominal air flow, combustor inlet pressure, combustor inlet temperature, firing temperature, turbine inlet temperature and turbine inlet pressure.
- (q) *Electric utility stationary gas turbine* means any stationary gas turbine constructed for the purpose of supplying more than one-third of its potential electric output capacity to any utility power distribution system for sale.
- (r) *Emergency fuel* is a fuel fired by a gas turbine only during circumstances, such as natural gas supply curtailment or breakdown of delivery system, that make it impossible to fire natural gas in the gas turbine.
- (s) *Unit operating hour* means a clock hour during which any fuel is combusted in the affected unit. If the unit combusts fuel for the entire clock hour, it is considered to be a full unit operating hour. If the unit combusts fuel for only part of the clock hour, it is considered to be a partial unit operating hour.
- (t) *Excess emissions* means a specified averaging period over which either:
- (1) The NO_x emissions are higher than the applicable emission limit in Sec. 60.332;
 - (2) The total sulfur content of the fuel being combusted in the affected facility exceeds the limit specified in Sec. 60.333; or
 - (3) The recorded value of a particular monitored parameter is outside the acceptable range specified in the parameter monitoring plan for the affected unit.
- (u) *Natural gas* means a naturally occurring fluid mixture of hydrocarbons (e.g., methane, ethane, or propane) produced in geological formations beneath the Earth's surface that maintains a gaseous state at standard atmospheric temperature and pressure under ordinary conditions. Natural gas contains 20.0 grains or less of total sulfur per 100 standard cubic feet. Equivalents of this in other units are as follows: 0.068 weight percent total sulfur, 680 parts per million by weight (ppmw) total sulfur, and 338 parts per million by volume (ppmv) at 20 degrees Celsius total sulfur. Additionally, natural gas must either be composed of at least 70 percent methane by volume or have a gross calorific value between 950 and 1100 British thermal units (Btu) per standard cubic foot. Natural gas does not include the following gaseous fuels: landfill gas, digester gas, refinery gas, sour gas, blast furnace gas, coal-derived gas, producer gas, coke oven gas, or any gaseous fuel produced in a process which might result in highly variable sulfur content or heating value.
- (v) *Duct burner* means a device that combusts fuel and that is placed in the exhaust duct from another source, such as a stationary gas turbine, internal combustion engine, kiln, etc., to allow the firing of additional fuel to heat the exhaust gases before the exhaust gases enter a heat recovery steam generating unit.
- (w) *Lean premix stationary combustion turbine* means any stationary combustion turbine where the air and fuel are thoroughly mixed to form a lean mixture for combustion in the combustor. Mixing may occur before or in the combustion chamber. A unit which is capable of operating in both lean premix and diffusion flame modes is considered a lean premix stationary

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combustion turbine when it is in the lean premix mode, and it is considered a diffusion flame stationary combustion turbine when it is in the diffusion flame mode.

(x) Diffusion flame stationary combustion turbine means any stationary combustion turbine where fuel and air are injected at the combustor and are mixed only by diffusion prior to ignition. A unit which is capable of operating in both lean premix and diffusion flame modes is considered a lean premix stationary combustion turbine when it is in the lean premix mode, and it is considered a diffusion flame stationary combustion turbine when it is in the diffusion flame mode.

(y) Unit operating day means a 24-hour period between 12:00 midnight and the following midnight during which any fuel is combusted at any time in the unit. It is not necessary for fuel to be combusted continuously for the entire 24-hour period.

§ 60.332 Standard for nitrogen oxides.

(a) On and after the date on which the performance test required by § 60.8 is completed, every owner or operator subject to the provisions of this subpart as specified in paragraphs (b), (c), and (d) of this section shall comply with one of the following, except as provided in paragraphs (e), (f), (g), (h), (i), (j), (k), and (l) of this section.

(1) No owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any stationary gas turbine, any gases which contain nitrogen oxides in excess of:

$$STD = 0.0075 \frac{(14.4)}{Y} + F$$

where:

STD = allowable ISO corrected (if required as given in Sec. 60.335(b)(1)) NO_x emission concentration (percent by volume at 15 percent oxygen and on a dry basis),

Y = manufacturer's rated heat rate at manufacturer's rated load (kilojoules per watt hour) or, actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the facility. The value of Y shall not exceed 14.4 kilojoules per watt hour, and

F = NO_x emission allowance for fuel-bound nitrogen as defined in paragraph (a)(4) of this section.

(2) No owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any stationary gas turbine, any gases which contain nitrogen oxides in excess of:

$$STD = 0.0150 \frac{(14.4)}{Y} + F$$

where:

STD = allowable ISO corrected (if required as given in Sec. 60.335(b)(1)) NO_x emission concentration (percent by volume at 15 percent oxygen and on a dry basis),

Y = manufacturer's rated heat rate at manufacturer's rated peak load (kilojoules per watt hour), or actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the facility. The value of Y shall not exceed 14.4 kilojoules per watt hour, and

F = NO_x emission allowance for fuel-bound nitrogen as defined in paragraph (a)(4) of this section.

(3) The use of F in paragraphs (a)(1) and (2) of this section is optional. That is, the owner or operator may choose to apply a NO_x allowance for fuel-bound nitrogen and determine the appropriate F-value in accordance with paragraph (a)(4) of this section or may accept an F-value of zero.

(4) If the owner or operator elects to apply a NO_x emission allowance for fuel-bound nitrogen, F shall be defined according to the nitrogen content of the fuel during the most recent performance test required under Sec. 60.8 as follows:

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Fuel-bound nitrogen (% by weight) F (NO_x% by volume)

N≤0.015.....	0
0.015<N≤0.1.....	0.04(N)
0.1<N≤0.25.....	0.004+0.0067(N-0.1)
N>0.25.....	0.005

Where:

N = the nitrogen content of the fuel (percent by weight).

or:

Manufacturers may develop and submit to EPA custom fuel-bound nitrogen allowances for each gas turbine model they manufacture. These fuel-bound nitrogen allowances shall be substantiated with data and must be approved for use by the Administrator before the initial performance test required by Sec. 60.8. Notices of approval of custom fuel-bound nitrogen allowances will be published in the Federal Register.

- (b) Electric utility stationary gas turbines with a heat input at peak load greater than 107.2 gigajoules per hour (100 million Btu/hour) based on the lower heating value of the fuel fired shall comply with the provisions of paragraph (a)(1) of this section.
- (c) Stationary gas turbines with a heat input at peak load equal to or greater than 10.7 gigajoules per hour (10 million Btu/hour) but less than or equal to 107.2 gigajoules per hour (100 million Btu/hour) based on the lower heating value of the fuel fired, shall comply with the provisions of paragraph (a)(2) of this section.
- (d) Stationary gas turbines with a manufacturer's rated base load at ISO conditions of 30 megawatts or less except as provided in § 60.332(b) shall comply with paragraph (a)(2) of this section.
- (e) Stationary gas turbines with a heat input at peak load equal to or greater than 10.7 gigajoules per hour (10 million Btu/hour) but less than or equal to 107.2 gigajoules per hour (100 million Btu/hour) based on the lower heating value of the fuel fired and that have commenced construction prior to October 3, 1982 are exempt from paragraph (a) of this section.
- (f) Stationary gas turbines using water or steam injection for control of NO_x emissions are exempt from paragraph (a) when ice fog is deemed a traffic hazard by the owner or operator of the gas turbine.
- (g) Emergency gas turbines, military gas turbines for use in other than a garrison facility, military gas turbines installed for use as military training facilities, and fire fighting gas turbines are exempt from paragraph (a) of this section.
- (h) Stationary gas turbines engaged by manufacturers in research and development of equipment for both gas turbine emission control techniques and gas turbine efficiency improvements are exempt from paragraph (a) on a case-by-case basis as determined by the Administrator.
- (i) Exemptions from the requirements of paragraph (a) of this section will be granted on a case-by-case basis as determined by the Administrator in specific geographical areas where mandatory water restrictions are required by governmental agencies because of drought conditions. These exemptions will be allowed only while the mandatory water restrictions are in effect.
- (j) Stationary gas turbines with a heat input at peak load greater than 107.2 gigajoules per hour that commenced construction, modification, or reconstruction between the dates of October 3, 1977, and January 27, 1982, and were required in the September 10, 1979, Federal Register (44 FR 52792) to comply with paragraph (a)(1) of this section, except electric utility stationary gas turbines, are exempt from paragraph (a) of this section.
- (k) Stationary gas turbines with a heat input greater than or equal to 10.7 gigajoules per hour (10 million Btu/hour) when fired with natural gas are exempt from paragraph (a)(2) of this section when being fired with an emergency fuel.
- (l) Regenerative cycle gas turbines with a heat input less than or equal to 107.2 gigajoules per hour (100 million Btu/hour) are exempt from paragraph (a) of this section.

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§ 60.333 Standard for sulfur dioxide.

On and after the date on which the performance test required to be conducted by § 60.8 is completed, every owner or operator subject to the provision of this subpart shall comply with one or the other of the following conditions:

(a) No owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any stationary gas turbine any gases which contain sulfur dioxide in excess of 0.015 percent by volume at 15 percent oxygen and on a dry basis.

(b) No owner or operator subject to the provisions of this subpart shall burn in any stationary gas turbine any fuel which contains total sulfur in excess of 0.8 percent by weight (8000 ppmw).

§ 60.334 Monitoring of operations.

(a) Except as provided in paragraph (b) of this section, the owner or operator of any stationary gas turbine subject to the provisions of this subpart and using water or steam injection to control NO_x emissions shall install, calibrate, maintain and operate a continuous monitoring system to monitor and record the fuel consumption and the ratio of water or steam to fuel being fired in the turbine.

(b) The owner or operator of any stationary gas turbine that commenced construction, reconstruction or modification after October 3, 1977, but before July 8, 2004, and which uses water or steam injection to control NO_x emissions may, as an alternative to operating the continuous monitoring system described in paragraph (a) of this section, install, certify, maintain, operate, and quality-assure a continuous emission monitoring system (CEMS) consisting of NO_x and O₂ monitors. As an alternative, a CO₂ monitor may be used to adjust the measured NO_x concentrations to 15 percent O₂ by either converting the CO₂ hourly averages to equivalent O₂ concentrations using Equation F-14a or F-14b in appendix F to part 75 of this chapter and making the adjustments to 15 percent O₂, or by using the CO₂ readings directly to make the adjustments, as described in Method 20. If the option to use a CEMS is chosen, the CEMS shall be installed, certified, maintained and operated as follows:

(1) Each CEMS must be installed and certified according to PS 2 and 3 (for diluent) of 40 CFR part 60, appendix B, except the 7-day calibration drift is based on unit operating days, not calendar days. Appendix F, Procedure 1 is not required. The relative accuracy test audit (RATA) of the NO_x and diluent monitors may be performed individually or on a combined basis, i.e., the relative accuracy tests of the CEMS may be performed either:

(i) On a ppm basis (for NO_x) and a percent O₂ basis for oxygen; or

(ii) On a ppm at 15 percent O₂ basis; or

(iii) On a ppm basis (for NO_x) and a percent CO₂ basis (for a CO₂ monitor that uses the procedures in Method 20 to correct the NO_x data to 15 percent O₂).

(2) As specified in Sec. 60.13(e)(2), during each full unit operating hour, each monitor must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour, to validate the hour. For partial unit operating hours, at least one valid data point must be obtained for each quadrant of the hour in which the unit operates. For unit operating hours in which required quality assurance and maintenance activities are performed on the CEMS, a minimum of two valid data points (one in each of two quadrants) are required to validate the hour.

(3) For purposes of identifying excess emissions, CEMS data must be reduced to hourly averages as specified in Sec. 60.13(h).

(i) For each unit operating hour in which a valid hourly average, as described in paragraph (b)(2) of this section, is obtained for both NO_x and diluent, the data acquisition and handling system must calculate and record the hourly NO_x emissions in the units of the applicable NO_x emission standard under Sec. 60.332(a), i.e., percent NO_x by volume, dry basis, corrected to 15 percent O₂ and International Organization for Standardization (ISO) standard conditions (if required as given in Sec. 60.335(b)(1)). For any hour in which the hourly average O₂ concentration exceeds 19.0 percent O₂, a diluent cap value of 19.0 percent O₂ may be used in the emission calculations.

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(ii) A worst case ISO correction factor may be calculated and applied using historical ambient data. For the purpose of this calculation, substitute the maximum humidity of ambient air (H_o), minimum ambient temperature (T_a), and minimum combustor inlet absolute pressure (P_o) into the ISO correction equation.

(iii) If the owner or operator has installed a NO_x CEMS to meet the requirements of part 75 of this chapter, and is continuing to meet the ongoing requirements of part 75 of this chapter, the CEMS may be used to meet the requirements of this section, except that the missing data substitution methodology provided for at 40 CFR part 75, subpart D, is not required for purposes of identifying excess emissions. Instead, periods of missing CEMS data are to be reported as monitor downtime in the excess emissions and monitoring performance report required in Sec. 60.7(c).

(c) For any turbine that commenced construction, reconstruction or modification after October 3, 1977, but before July 8, 2004, and which does not use steam or water injection to control NO_x emissions, the owner or operator may, but is not required to, for purposes of determining excess emissions, use a CEMS that meets the requirements of paragraph (b) of this section. Also, if the owner or operator has previously submitted and received EPA, State, or local permitting authority approval of a procedure for monitoring compliance with the applicable NO_x emission limit under Sec. 60.332, that approved procedure may continue to be used.

(d) The owner or operator of any new turbine constructed after July 8, 2004, and which uses water or steam injection to control NO_x emissions may elect to use either the requirements in paragraph (a) of this section for continuous water or steam to fuel ratio monitoring or may use a NO_x CEMS installed, certified, operated, maintained, and quality-assured as described in paragraph (b) of this section.

(e) The owner or operator of any new turbine that commences construction after July 8, 2004, and which does not use water or steam injection to control NO_x emissions, may, but is not required to, elect to use a NO_x CEMS installed, certified, operated, maintained, and quality-assured as described in paragraph (b) of this section. Other acceptable monitoring approaches include periodic testing approved by EPA or the State or local permitting authority or continuous parameter monitoring as described in paragraph (f) of this section.

(f) The owner or operator of a new turbine that commences construction after July 8, 2004, which does not use water or steam injection to control NO_x emissions may, but is not required to, perform continuous parameter monitoring as follows:

(1) For a diffusion flame turbine without add-on selective catalytic reduction controls (SCR), the owner or operator shall define at least four parameters indicative of the unit's NO_x formation characteristics and shall monitor these parameters continuously.

(2) For any lean premix stationary combustion turbine, the owner or operator shall continuously monitor the appropriate parameters to determine whether the unit is operating in low- NO_x mode.

(3) For any turbine that uses SCR to reduce NO_x emissions, the owner or operator shall continuously monitor appropriate parameters to verify the proper operation of the emission controls.

(4) For affected units that are also regulated under part 75 of this chapter, if the owner or operator elects to monitor NO_x emission rate using the methodology in appendix E to part 75 of this chapter, or the low mass emissions methodology in Sec. 75.19 of this chapter, the requirements of this paragraph (f) may be met by performing the parametric monitoring described in section 2.3 of appendix E or in Sec. 75.19(c)(1)(iv)(H) of this chapter.

(g) The steam or water to fuel ratio or other parameters that are continuously monitored as described in paragraphs (a), (d) or (f) of this section shall be monitored during the performance test required under Sec. 60.8, to establish acceptable values and ranges. The owner or operator may supplement the performance test data with engineering analyses, design specifications, manufacturer's recommendations and other relevant information to define the acceptable parametric ranges more precisely. The owner or operator shall develop and keep on-site a parameter monitoring plan which explains the procedures used to document proper operation of the NO_x emission controls. The plan shall include the parameter(s) monitored and the acceptable range(s) of the parameter(s) as well as the basis for designating the parameter(s) and acceptable range(s). Any supplemental data such as engineering analyses, design specifications, manufacturer's recommendations and other relevant information shall be included in the monitoring plan. For affected units that are also subject to part 75 of this chapter and that

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use the low mass emissions methodology in Sec. 75.19 of this chapter or the NO_x emission measurement methodology in appendix E to part 75, the owner or operator may meet the requirements of this paragraph by developing and keeping on-site (or at a central location for unmanned facilities) a quality-assurance plan, as described in Sec. 75.19 (e)(5) or in section 2.3 of appendix E and section 1.3.6 of appendix B to part 75 of this chapter.

(h) The owner or operator of any stationary gas turbine subject to the provisions of this subpart:

(1) Shall monitor the total sulfur content of the fuel being fired in the turbine, except as provided in paragraph (h)(3) of this section. The sulfur content of the fuel must be determined using total sulfur methods described in Sec.

60.335(b)(10). Alternatively, if the total sulfur content of the gaseous fuel during the most recent performance test was less than 0.4 weight percent (4000 ppmw), ASTM D4084-82, 94, D5504-01, D6228-98, or Gas Processors Association Standard 2377-86 (all of which are incorporated by reference-see Sec. 60.17), which measure the major sulfur compounds may be used; and

(2) Shall monitor the nitrogen content of the fuel combusted in the turbine, if the owner or operator claims an allowance for fuel bound nitrogen (i.e., if an F-value greater than zero is being or will be used by the owner or operator to calculate STD in Sec. 60.332). The nitrogen content of the fuel shall be determined using methods described in Sec. 60.335(b)(9) or an approved alternative.

(3) Notwithstanding the provisions of paragraph (h)(1) of this section, the owner or operator may elect not to monitor the total sulfur content of the gaseous fuel combusted in the turbine, if the gaseous fuel is demonstrated to meet the definition of natural gas in Sec. 60.331(u), regardless of whether an existing custom schedule approved by the administrator for subpart GG requires such monitoring. The owner or operator shall use one of the following sources of information to make the required demonstration:

(i) The gas quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the gaseous fuel, specifying that the maximum total sulfur content of the fuel is 20.0 grains/100 scf or less; or

(ii) Representative fuel sampling data which show that the sulfur content of the gaseous fuel does not exceed 20 grains/100 scf. At a minimum, the amount of fuel sampling data specified in section 2.3.1.4 or 2.3.2.4 of appendix D to part 75 of this chapter is required.

(4) For any turbine that commenced construction, reconstruction or modification after October 3, 1977, but before July 8, 2004, and for which a custom fuel monitoring schedule has previously been approved, the owner or operator may, without submitting a special petition to the Administrator, continue monitoring on this schedule.

(i) The frequency of determining the sulfur and nitrogen content of the fuel shall be as follows:

(1) Fuel oil. For fuel oil, use one of the total sulfur sampling options and the associated sampling frequency described in sections 2.2.3, 2.2.4.1, 2.2.4.2, and 2.2.4.3 of appendix D to part 75 of this chapter (i.e., flow proportional sampling, daily sampling, sampling from the unit's storage tank after each addition of fuel to the tank, or sampling each delivery prior to combining it with fuel oil already in the intended storage tank). If an emission allowance is being claimed for fuel-bound nitrogen, the nitrogen content of the oil shall be determined and recorded once per unit operating day.

(2) Gaseous fuel. Any applicable nitrogen content value of the gaseous fuel shall be determined and recorded once per unit operating day. For owners and operators that elect not to demonstrate sulfur content using options in paragraph (h)(3) of this section, and for which the fuel is supplied without intermediate bulk storage, the sulfur content value of the gaseous fuel shall be determined and recorded once per unit operating day.

(3) Custom schedules. Notwithstanding the requirements of paragraph (i)(2) of this section, operators or fuel vendors may develop custom schedules for determination of the total sulfur content of gaseous fuels, based on the design and operation of the affected facility and the characteristics of the fuel supply. Except as provided in paragraphs (i)(3)(i) and (i)(3)(ii) of this section, custom schedules shall be substantiated with data and shall be approved by the Administrator before they can be used to comply with the standard in Sec. 60.333.

(i) The two custom sulfur monitoring schedules set forth in paragraphs (i)(3)(i)(A) through (D) and in paragraph (i)(3)(ii) of this section are acceptable, without prior Administrative approval:

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(A) The owner or operator shall obtain daily total sulfur content measurements for 30 consecutive unit operating days, using the applicable methods specified in this subpart. Based on the results of the 30 daily samples, the required frequency for subsequent monitoring of the fuel's total sulfur content shall be as specified in paragraph (i)(3)(i)(B), (C), or (D) of this section, as applicable.

(B) If none of the 30 daily measurements of the fuel's total sulfur content exceeds 0.4 weight percent (4000 ppmw), subsequent sulfur content monitoring may be performed at 12 month intervals. If any of the samples taken at 12-month intervals has a total sulfur content between 0.4 and 0.8 weight percent (4000 and 8000 ppmw), follow the procedures in paragraph (i)(3)(i)(C) of this section. If any measurement exceeds 0.8 weight percent (8000 ppmw), follow the procedures in paragraph (i)(3)(i)(D) of this section.

(C) If at least one of the 30 daily measurements of the fuel's total sulfur content is between 0.4 and 0.8 weight percent (4000 and 8000 ppmw), but none exceeds 0.8 weight percent (8000 ppmw), then:

(1) Collect and analyze a sample every 30 days for three months. If any sulfur content measurement exceeds 0.8 weight percent (8000 ppmw), follow the procedures in paragraph (i)(3)(i)(D) of this section. Otherwise, follow the procedures in paragraph (i)(3)(i)(C)(2) of this section.

(2) Begin monitoring at 6-month intervals for 12 months. If any sulfur content measurement exceeds 0.8 weight percent (8000 ppmw), follow the procedures in paragraph (i)(3)(i)(D) of this section. Otherwise, follow the procedures in paragraph (i)(3)(i)(C)(3) of this section.

(3) Begin monitoring at 12-month intervals. If any sulfur content measurement exceeds 0.8 weight percent (8000 ppmw), follow the procedures in paragraph (i)(3)(i)(D) of this section. Otherwise, continue to monitor at this frequency.

(D) If a sulfur content measurement exceeds 0.8 weight percent (8000 ppmw), immediately begin daily monitoring according to paragraph (i)(3)(i)(A) of this section. Daily monitoring shall continue until 30 consecutive daily samples, each having a sulfur content no greater than 0.8 weight percent (8000 ppmw), are obtained. At that point, the applicable procedures of paragraph (i)(3)(i)(B) or (C) of this section shall be followed.

(ii) The owner or operator may use the data collected from the 720-hour sulfur sampling demonstration described in section 2.3.6 of appendix D to part 75 of this chapter to determine a custom sulfur sampling schedule, as follows:

(A) If the maximum fuel sulfur content obtained from the 720 hourly samples does not exceed 20 grains/100 scf (i.e., the maximum total sulfur content of natural gas as defined in Sec. 60.331(u)), no additional monitoring of the sulfur content of the gas is required, for the purposes of this subpart.

(B) If the maximum fuel sulfur content obtained from any of the 720 hourly samples exceeds 20 grains/100 scf, but none of the sulfur content values (when converted to weight percent sulfur) exceeds 0.4 weight percent (4000 ppmw), then the minimum required sampling frequency shall be one sample at 12 month intervals.

(C) If any sample result exceeds 0.4 weight percent sulfur (4000 ppmw), but none exceeds 0.8 weight percent sulfur (8000 ppmw), follow the provisions of paragraph (i)(3)(i)(C) of this section.

(D) If the sulfur content of any of the 720 hourly samples exceeds 0.8 weight percent (8000 ppmw), follow the provisions of paragraph (i)(3)(i)(D) of this section.

(j) For each affected unit that elects to continuously monitor parameters or emissions, or to periodically determine the fuel sulfur content or fuel nitrogen content under this subpart, the owner or operator shall submit reports of excess emissions and monitor downtime, in accordance with Sec. 60.7(c). Excess emissions shall be reported for all periods of unit operation, including startup, shutdown and malfunction. For the purpose of reports required under Sec. 60.7(c), periods of excess emissions and monitor downtime that shall be reported are defined as follows:

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(1) Nitrogen oxides.

(i) For turbines using water or steam to fuel ratio monitoring:

(A) An excess emission shall be any unit operating hour for which the average steam or water to fuel ratio, as measured by the continuous monitoring system, falls below the acceptable steam or water to fuel ratio needed to demonstrate compliance with Sec. 60.332, as established during the performance test required in Sec. 60.8. Any unit operating hour in which no water or steam is injected into the turbine shall also be considered an excess emission.

(B) A period of monitor downtime shall be any unit operating hour in which water or steam is injected into the turbine, but the essential parametric data needed to determine the steam or water to fuel ratio are unavailable or invalid.

(C) Each report shall include the average steam or water to fuel ratio, average fuel consumption, ambient conditions (temperature, pressure, and humidity), gas turbine load, and (if applicable) the nitrogen content of the fuel during each excess emission. You do not have to report ambient conditions if you opt to use the worst case ISO correction factor as specified in Sec. 60.334(b)(3)(ii), or if you are not using the ISO correction equation under the provisions of Sec. 60.335(b)(1).

(ii) If the owner or operator elects to take an emission allowance for fuel bound nitrogen, then excess emissions and periods of monitor downtime are as described in paragraphs (j)(1)(ii)(A) and (B) of this section.

(A) An excess emission shall be the period of time during which the fuel-bound nitrogen (N) is greater than the value measured during the performance test required in Sec. 60.8 and used to determine the allowance. The excess emission begins on the date and hour of the sample which shows that N is greater than the performance test value, and ends with the date and hour of a subsequent sample which shows a fuel nitrogen content less than or equal to the performance test value.

(B) A period of monitor downtime begins when a required sample is not taken by its due date. A period of monitor downtime also begins on the date and hour that a required sample is taken, if invalid results are obtained. The period of monitor downtime ends on the date and hour of the next valid sample.

(iii) For turbines using NO_x and diluent CEMS:

(A) An hour of excess emissions shall be any unit operating hour in which the 4-hour rolling average NO_x concentration exceeds the applicable emission limit in Sec. 60.332(a)(1) or (2). For the purposes of this subpart, a "4-hour rolling average NO_x concentration" is the arithmetic average of the average NO_x concentration measured by the CEMS for a given hour (corrected to 15 percent O₂ and, if required under Sec. 60.335(b)(1), to ISO standard conditions) and the three unit operating hour average NO_x concentrations immediately preceding that unit operating hour.

(B) A period of monitor downtime shall be any unit operating hour in which sufficient data are not obtained to validate the hour, for either NO_x concentration or diluent (or both).

(C) Each report shall include the ambient conditions (temperature, pressure, and humidity) at the time of the excess emission period and (if the owner or operator has claimed an emission allowance for fuel bound nitrogen) the nitrogen content of the fuel during the period of excess emissions. You do not have to report ambient conditions if you opt to use the worst case ISO correction factor as specified in Sec. 60.334(b)(3)(ii), or if you are not using the ISO correction equation under the provisions of Sec. 60.335(b)(1).

(iv) For owners or operators that elect, under paragraph (f) of this section, to monitor combustion parameters or parameters that document proper operation of the NO_x emission controls:

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(A) An excess emission shall be a 4-hour rolling unit operating hour average in which any monitored parameter does not achieve the target value or is outside the acceptable range defined in the parameter monitoring plan for the unit.

(B) A period of monitor downtime shall be a unit operating hour in which any of the required parametric data are either not recorded or are invalid.

(2) Sulfur dioxide. If the owner or operator is required to monitor the sulfur content of the fuel under paragraph (h) of this section:

(i) For samples of gaseous fuel and for oil samples obtained using daily sampling, flow proportional sampling, or sampling from the unit's storage tank, an excess emission occurs each unit operating hour included in the period beginning on the date and hour of any sample for which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8 weight percent and ending on the date and hour that a subsequent sample is taken that demonstrates compliance with the sulfur limit.

(ii) If the option to sample each delivery of fuel oil has been selected, the owner or operator shall immediately switch to one of the other oil sampling options (i.e., daily sampling, flow proportional sampling, or sampling from the unit's storage tank) if the sulfur content of a delivery exceeds 0.8 weight percent. The owner or operator shall continue to use one of the other sampling options until all of the oil from the delivery has been combusted, and shall evaluate excess emissions according to paragraph (j)(2)(i) of this section. When all of the fuel from the delivery has been burned, the owner or operator may resume using the as-delivered sampling option.

(iii) A period of monitor downtime begins when a required sample is not taken by its due date. A period of monitor downtime also begins on the date and hour of a required sample, if invalid results are obtained. The period of monitor downtime shall include only unit operating hours, and ends on the date and hour of the next valid sample.

(3) *Ice fog.* Each period during which an exemption provided in § 60.332(f) is in effect shall be reported in writing to the Administrator quarterly. For each period the ambient conditions existing during the period, the date and time the air pollution control system was deactivated, and the date and time the air pollution control system was reactivated shall be reported. All quarterly reports shall be postmarked by the 30th day following the end of each calendar quarter.

(4) *Emergency fuel.* Each period during which an exemption provided in § 60.332(k) is in effect shall be included in the report required in § 60.7(c). For each period, the type, reasons, and duration of the firing of the emergency fuel shall be reported.

(5) All reports required under Sec. 60.7(c) shall be postmarked by the 30th day following the end of each 6-month period.

Sec. 60.335 Test methods and procedures.

(a) The owner or operator shall conduct the performance tests required in Sec. 60.8, using either

(1) EPA Method 20,

(2) ASTM D6522-00 (incorporated by reference, see Sec. 60.17), or

(3) EPA Method 7E and either EPA Method 3 or 3A in appendix A to this part, to determine NO_x and diluent concentration.

(4) Sampling traverse points are to be selected following Method 20 or Method 1, (non-particulate procedures) and sampled for equal time intervals. The sampling shall be performed with a traversing single-hole probe or, if feasible, with a stationary multi-hole probe that samples each of the points sequentially. Alternatively, a multi-hole probe designed and documented to sample equal volumes from each hole may be used to sample simultaneously at the required points.

(5) Notwithstanding paragraph (a)(4) of this section, the owner or operator may test at few points than are specified in Method 1 or Method 20 if the following conditions are met:

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(i) You may perform a stratification test for NO_x and diluent pursuant to

(A) [Reserved]

(B) The procedures specified in section 6.5.6.1(a) through (e) appendix A to part 75 of this chapter.

(ii) Once the stratification sampling is completed, the owner or operator may use the following alternative sample point selection criteria for the performance test:

(A) If each of the individual traverse point NO_x concentrations, normalized to 15 percent O₂, is within 10 percent of the mean normalized concentration for all traverse points, then you may use 3 points (located either 16.7, 50.0, and 83.3 percent of the way across the stack or duct, or, for circular stacks or ducts greater than 2.4 meters (7.8 feet) in diameter, at 0.4, 1.2, and 2.0 meters from the wall). The 3 points shall be located along the measurement line that exhibited the highest average normalized NO_x concentration during the stratification test; or

(B) If each of the individual traverse point NO_x concentrations, normalized to 15 percent O₂, is within 5 percent of the mean normalized concentration for all traverse points, then you may sample at a single point, located at least 1 meter from the stack wall or at the stack centroid.

(6) Other acceptable alternative reference methods and procedures are given in paragraph (c) of this section.

(b) The owner or operator shall determine compliance with the applicable nitrogen oxides emission limitation in Sec. 60.332 and shall meet the performance test requirements of Sec. 60.8 as follows:

(1) For each run of the performance test, the mean nitrogen oxides emission concentration (NO_{xo}) corrected to 15 percent O₂ shall be corrected to ISO standard conditions using the following equation. Notwithstanding this requirement, use of the ISO correction equation is optional for: Lean premix stationary combustion turbines; units used in association with heat recovery steam generators (HRSG) equipped with duct burners; and units equipped with add-on emission control devices:

$$NO_x = (NO_{xo})(P_r/P_o)^{0.5} e^{19(H_o - 0.00633)} (288[\text{deg}K/T_a])^{1.53}$$

Where:

NO_x = emission concentration of NO_x at 15 percent O₂ and ISO standard ambient conditions, ppm by volume, dry basis,

NO_{xo} = mean observed NO_x concentration, ppm by volume, dry basis, at 15 percent O₂,

P_r = reference combustor inlet absolute pressure at 101.3 kilopascals ambient pressure, mm Hg,

P_o = observed combustor inlet absolute pressure at test, mm Hg,

H_o = observed humidity of ambient air, g H₂O/g air,

e = transcendental constant, 2.718, and

T_a = ambient temperature, [deg]K.

(2) The 3-run performance test required by Sec. 60.8 must be performed within 5 percent at 30, 50, 75, and 90-to-100 percent of peak load or at four evenly-spaced load points in the normal operating range of the gas turbine, including the minimum point in the operating range and 90-to-100 percent of peak load, or at the highest achievable load point if 90-to-100 percent of peak load cannot be physically achieved in practice. If the turbine combusts both oil and gas as primary or backup fuels, separate performance testing is required for each fuel. Notwithstanding these requirements, performance testing is not required for any emergency fuel (as defined in Sec. 60.331).

(3) For a combined cycle turbine system with supplemental heat (duct burner), the owner or operator may elect to measure the turbine NO_x emissions after the duct burner rather than directly after the turbine. If the owner or operator

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elects to use this alternative sampling location, the applicable NO_x emission limit in Sec. 60.332 for the combustion turbine must still be met.

(4) If water or steam injection is used to control NO_x with no additional post-combustion NO_x control and the owner or operator chooses to monitor the steam or water to fuel ratio in accordance with Sec. 60.334(a), then that monitoring system must be operated concurrently with each EPA Method 20, ASTM D6522-00 (incorporated by reference, see Sec. 60.17), or EPA Method 7E run and shall be used to determine the fuel consumption and the steam or water to fuel ratio necessary to comply with the applicable Sec. 60.332 NO_x emission limit.

(5) If the owner operator elects to claim an emission allowance for fuel bound nitrogen as described in Sec. 60.332, then concurrently with each reference method run, a representative sample of the fuel used shall be collected and analyzed, following the applicable procedures described in Sec. 60.335(b)(9). These data shall be used to determine the maximum fuel nitrogen content for which the established water (or steam) to fuel ratio will be valid.

(6) If the owner or operator elects to install a CEMS, the performance evaluation of the CEMS may either be conducted separately (as described in paragraph (b)(7) of this section) or as part of the initial performance test of the affected unit.

(7) If the owner or operator elects to install and certify a NO_x CEMS under Sec. 60.334(e), then the initial performance test required under Sec. 60.8 may be done in the following alternative manner:

(i) Perform a minimum of 9 reference method runs, with a minimum time per run of 21 minutes, at a single load level, between 90 and 100 percent of peak (or the highest physically achievable) load.

(ii) Use the test data both to demonstrate compliance with the applicable NO_x emission limit under Sec. 60.332 and to provide the required reference method data for the RATA of the CEMS described under Sec. 60.334(b).

(iii) The requirement to test at three additional load levels is waived.

(8) If the owner or operator elects under Sec. 60.334(f) to monitor combustion parameters or parameters indicative of proper operation of NO_x emission controls, the appropriate parameters shall be continuously monitored and recorded during each run of the initial performance test, to establish acceptable operating ranges, for purposes of the parameter monitoring plan for the affected unit, as specified in Sec. 60.334(g).

(9) To determine the fuel bound nitrogen content of fuel being fired (if an emission allowance is claimed for fuel bound nitrogen), the owner or operator may use equipment and procedures meeting the requirements of:

(i) For liquid fuels, ASTM D2597-94 (Reapproved 1999), D6366-99, D4629-02, D5762-02 (all of which are incorporated by reference, see Sec. 60.17); or

(ii) For gaseous fuels, shall use analytical methods and procedures that are accurate to within 5 percent of the instrument range and are approved by the Administrator.

(10) If the owner or operator is required under Sec. 60.334(i)(1) or (3) to periodically determine the sulfur content of the fuel combusted in the turbine, a minimum of three fuel samples shall be collected during the performance test. Analyze the samples for the total sulfur content of the fuel using:

(i) For liquid fuels, ASTM D129-00, D2622-98, D4294-02, D1266-98, D5453-00 or D1552-01 (all of which are incorporated by reference, see Sec. 60.17); or

(ii) For gaseous fuels, ASTM D1072-80, 90 (Reapproved 1994); D3246-81, 92, 96; D4468-85 (Reapproved 2000); or D6667-01 (all of which are incorporated by reference, see Sec. 60.17). The applicable ranges of some ASTM methods mentioned above are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of the dilution ratio) may be used, subject to the prior approval of the Administrator.

(11) The fuel analyses required under paragraphs (b)(9) and (b)(10) of this section may be performed by the owner or operator, a service contractor retained by the owner or operator, the fuel vendor, or any other qualified agency.

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(c) The owner or operator may use the following as alternatives to the reference methods and procedures specified in this section:

- (1) Instead of using the equation in paragraph (b)(1) of this section, manufacturers may develop ambient condition correction factors to adjust the nitrogen oxides emission level measured by the performance test as provided in Sec. 60.8 to ISO standard day conditions.

APPENDIX I

LIST OF INSIGNIFICANT EMISSIONS UNITS AND/OR ACTIVITIES

The facilities, emissions units, or pollutant-emitting activities listed in Rule 62-210.300(3)(a), F.A.C., Categorical Exemptions, or that meet the criteria specified in Rule 62-210.300(3)(b)1., F.A.C., Generic Emissions Unit Exemption, are exempt from the permitting requirements of Chapters 62-210, 62-212 and 62-4, F.A.C.; provided, however, that exempt emissions units shall be subject to any applicable emission limiting standards and the emissions from exempt emissions units or activities shall be considered in determining the potential emissions of the facility containing such emissions units. Emissions units and pollutant-emitting activities exempt from permitting under Rules 62-210.300(3)(a) and (b)1., F.A.C., shall not be exempt from the permitting requirements of Chapter 62-213, F.A.C., if they are contained within a Title V source; however, such emissions units and activities shall be considered insignificant for Title V purposes provided they also meet the criteria of Rule 62-213.430(6)(b), F.A.C. No emissions unit shall be entitled to an exemption from permitting under Rules 62-210.300(3)(a) and (b)1., F.A.C., if its emissions, in combination with the emissions of other units and activities at the facility, would cause the facility to emit or have the potential to emit any pollutant in such amount as to make the facility a Title V source.

The below listed emissions units and/or activities are considered insignificant pursuant to Rule 62-213.430(6), F.A.C.

Brief Description of Emissions Units and/or Activities

1. Internal combustion engines - mobile sources.
2. Vacuum pumps in laboratory operations.
3. Equipment used for steam cleaning.
4. Equipment used exclusively for space heating, other than boilers.
5. Laboratory equipment used exclusively for chemical or physical analyses.
6. Brazing, soldering or welding equipment.
7. Fire protection and safety equipment.
8. Petroleum lubrication systems.
9. Application of fungicide, herbicide, or pesticide.
10. Vehicle refueling operations and associated fuel storage.
11. Degreasing units using heavier-than air vapors exclusively that do not use any substance containing a hazardous air pollutant.
12. Non-halogenated solvent storage and cleaning operations that do not use any substance containing a hazardous air pollutant.
13. Turbine vapor extractor.
14. Application of fungicides, herbicides, and pesticides.
15. Steam turbine and boiler lube oil vents.
16. Used oil storage tanks.
17. Turbine and lube oil storage tanks.
18. Diesel fuel oil storage tanks.
19. No. 2 fuel oil storage tanks.
20. Wastewater treatment equipment.
21. Storage tanks less than 550 gallons.
22. Inorganic substance storage tanks greater than 550 gallons.
23. Architectural (equipment) maintenance painting.
24. Diesel and No. 2 fuel oil truck unloading.
25. Natural gas safety relief valves.
26. Oil/water separators.
27. Covered belt conveyors transferring wet material.
28. Coal beneficiation process.
29. The following engines are subject to regulation under 40 CFR 63, Subpart ZZZZ also known as (a.k.a.) MACT "4-Z's" or "RICE MACT," however, since the engines meet the Subpart ZZZZ definition of "existing units," there are no unit specific applicable requirements that must be met pursuant to this rule at this time. The

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LIST OF INSIGNIFICANT EMISSIONS UNITS AND/OR ACTIVITIES

engines are considered to be 'existing' units for purposes of 40 CFR 60 Subpart IIII also known as (a.k.a.) NSPS "4-I's" or "CI-ICE" and 40 CFR 60 Subpart JJJJ a.k.a. NSPS "4-J's" or "SI-ICE" {CI engines pre-May 2006 and SI engines pre-7/2/2007 are exempt from the NSPS}:

Identification	Model year/construction (manufacturer) date	Manufacturer name	Horsepower (HP)
Standby Generator	03/1995	Onan®	750
Standby Generator	02/1995	Onan®	750
Diesel Engine Fire Pump Controller (A)	08/24/1994	Caterpillar®	430
Diesel Engine Fire Pump Controller (B)	08/24/1994	Caterpillar®	430

There is no air pollution control equipment associated with these units.

30. Any other emissions unit or activity that:

a. Is exempted from the requirement to obtain an air construction permit as cited in Rule 62-213.430(6)(a), F.A.C..

And meets all of the following criteria pursuant to Rule 62-213.430(6)(b), F.A.C.:

b. Is not subject to a unit-specific applicable requirement.

c. Would neither emit nor have the potential to emit:

- i. 500 pounds per year of lead and lead compounds expressed as lead;
- ii. 1,000 pounds per year or more of any hazardous air pollutant;
- iii. 2,500 pounds per year or more of total hazardous air pollutants; or
- iv. 5.0 tons per year or more of any other regulated pollutant.

31. Surface coating operations.

32. Any sandblasting activities done associated with surface preparation for coating operations shall: use black beauty or equivalent abrasive material; when possible, be conducted in enclosed areas; and, minimize fugitive emissions to the extent possible.

33. Fossil fuel steam generators, hot water generators, and other external combustion heating units with heat input capacity equal to or less than 10 million Btu per hour.

34. Fossil fuel steam generators, hot water generators, and other external combustion heating units with heat input capacity less than 100 million Btu per hour.

35. Brine stack: This point vents evaporating water from the brine slurry. The brine consists of the mineral matter contained in the coal. This emission point is similar to insignificant activity numbers 20 (Wastewater treatment equipment) and 22 (Inorganic substance storage tanks greater than 550 gallons).

36. Vibrating screen: Ungasified material is passed over the vibrating screen separating the carbon from the mineral matter in order to recycle the carbon back into the gasification process. Water vapor containing trace amounts of ammonia and sour gas is off gassed at this point. This emission point is similar to insignificant activity number 28 (coal beneficiation process).

37. Mill stacks: Solid fuel and water is mixed in a rod mill to make a slurry. Heat is generated during this process and the mill stacks vent water vapor. These emissions are very similar to the vibrating screens' emissions but in much lower concentrations.

38. Brine prill tower: Air is vented during the cooling and drying of the brine concentration system. Emissions consist of water vapor and some brine liquid or particulate of brine. The tower does have a mist eliminator. This emission point is similar to insignificant activity number 20 (Wastewater treatment equipment).

APPENDIX RR
FACILITY-WIDE REPORTING REQUIREMENTS
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RR1. Reporting Schedule. This table summarizes information for convenience purposes only. It does not supersede any of the terms or conditions of this permit.

Report	Reporting Deadline(s)	Related Condition(s)
Plant Problems/Permit Deviations	Immediately upon occurrence (See RR2.d.)	RR2., RR3.
Malfunction Excess Emissions Report	Every 3 months (quarterly), if requested	RR3.
Semi-Annual Monitoring Report	Every 6 months	RR4.
Annual Operating Report	April 1 st of each year	RR5.
Annual Emissions Fee Form and Fee	March 1 st of each year	RR6.
Annual Statement of Compliance	Within 60 days after the end of each calendar year (or more frequently if specified by Rule 62-213.440(2), F.A.C., or by any other applicable requirement); and Within 60 days after submittal of a written agreement for transfer of responsibility, or Within 60 days after permanent shutdown.	RR7.
Notification of Administrative Permit Corrections	As needed	RR8.
Notification of Startup after Shutdown for More than One Year	Minimum of 60 days prior to the intended startup date or, if emergency startup, as soon as possible after the startup date is ascertained	RR9.
Permit Renewal Application	225 days prior to the expiration date of permit	TV17.
Test Reports	Maximum 45 days following compliance tests	TR8.

{Permitting Note: See permit Section III. Emissions Units and Specific Conditions, for any additional Emission Unit-specific reporting requirements.}

RR2. Reports of Problems.

- a. Plant Operation-Problems. If the permittee is temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by hazard of fire, wind or by other cause, the permittee shall immediately notify the Department. Notification shall include pertinent information as to the cause of the problem, and what steps are being taken to correct the problem and to prevent its recurrence, and where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with Department rules.
- b. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
 - (1) A description of and cause of noncompliance; and
 - (2) The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance. The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.
- c. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware the relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.
- d. "Immediately" shall mean the same day, if during a workday (i.e., 8:00 a.m. - 5:00 p.m.), or the first business day after the incident, excluding weekends and holidays; and, for purposes of Rule 62-4.160(15) and 40 CFR 70.6(a)(3)(iii)(B), "promptly" or "prompt" shall have the same meaning as "immediately".

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[Rule 62-4.130, Rule 62-4.160(8), Rule 62-4.160(15), and Rule 62-213.440(1)(b), F.A.C.; 40 CFR 70.6(a)(3)(iii)(B)]

- RR3. Reports of Deviations from Permit Requirements.** The permittee shall report in accordance with the requirements of Rule 62-210.700(6), F.A.C. (below), and Rule 62-4.130, F.A.C. (condition RR2.), deviations from permit requirements, including those attributable to upset conditions as defined in the permit. Reports shall include the probable cause of such deviations, and any corrective actions or preventive measures taken.
Rule 62-210.700(6): In case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department or the appropriate Local Program in accordance with Rule 62-4.130, F.A.C. (See condition RR2.). A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department.
[Rules 62-213.440(1)(b)3.b., and 62-210.700(6), F.A.C.]
- RR4. Semi-Annual Monitoring Reports.** The permittee shall submit reports of any required monitoring at least every six (6) months. All instances of deviations from permit requirements must be clearly identified in such reports. [Rule 62-213.440(1)(b)3.a., F.A.C.]
- RR5. Annual Operating Report.**
- a. The permittee shall submit to the Compliance Authority, each calendar year, on or before April 1, a completed DEP Form No. 62-210.900(5), "Annual Operating Report for Air Pollutant Emitting Facility", for the preceding calendar year.
 - b. Emissions shall be computed in accordance with the provisions of Rule 62-210.370(2), F.A.C.
[Rules 62-210.370(2) & (3), and 62-213.440(3)(a)2., F.A.C.]
- RR6. Annual Emissions Fee Form and Fee.** Each Title V source permitted to operate in Florida must pay between January 15 and March 1 of each year, an annual emissions fee in an amount determined as set forth in Rule 62-213.205(1), F.A.C.
- a. If the Department has not received the fee by February 15 of the year following the calendar year for which the fee is calculated, the Department will send the primary responsible official of the Title V source a written warning of the consequences for failing to pay the fee by March 1. If the fee is not postmarked by March 1 of the year due, the Department shall impose, in addition to the fee, a penalty of 50 percent of the amount of the fee unpaid plus interest on such amount computed in accordance with Section 220.807, F.S. If the Department determines that a submitted fee was inaccurately calculated, the Department shall either refund to the permittee any amount overpaid or notify the permittee of any amount underpaid. The Department shall not impose a penalty or interest on any amount underpaid, provided that the permittee has timely remitted payment of at least 90 percent of the amount determined to be due and remits full payment within 60 days after receipt of notice of the amount underpaid. The Department shall waive the collection of underpayment and shall not refund overpayment of the fee, if the amount is less than 1 percent of the fee due, up to \$50.00. The Department shall make every effort to provide a timely assessment of the adequacy of the submitted fee. Failure to pay timely any required annual emissions fee, penalty, or interest constitutes grounds for permit revocation pursuant to Rule 62-4.100, F.A.C.
 - b. Any documentation of actual hours of operation, actual material or heat input, actual production amount, or actual emissions used to calculate the annual emissions fee shall be retained by the owner for a minimum of five (5) years and shall be made available to the Department upon request.
 - c. A completed DEP Form 62-213.900(1), "Major Air Pollution Source Annual Emissions Fee Form", must be submitted by a responsible official with the annual emissions fee.
[Rules 62-213.205(1), (1)(g), (1)(i) & (1)(j), F.A.C.]
- RR7. Annual Statement of Compliance.**
- a. The permittee shall submit a Statement of Compliance with all terms and conditions of the permit that includes all the provisions of 40 CFR 70.6(c)(5)(iii), incorporated by reference at Rule 62-204.800, F.A.C., using DEP Form No. 62-213.900(7). Such statement shall be accompanied by a certification in accordance with Rule 62-213.420(4), F.A.C., for Title V requirements and with Rule 62-214.350, F.A.C.,

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FACILITY-WIDE REPORTING REQUIREMENTS
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for Acid Rain requirements. Such statements shall be submitted (postmarked) to the Department and EPA:

- (1) Annually, within 60 days after the end of each calendar year during which the Title V permit was effective, or more frequently if specified by Rule 62-213.440(2), F.A.C., or by any other applicable requirement; and
 - (2) Within 60 days after submittal of a written agreement for transfer of responsibility as required pursuant to 40 CFR 70.7(d)(1)(iv), adopted and incorporated by reference at Rule 62-204.800, F.A.C., or within 60 days after permanent shutdown of a facility permitted under Chapter 62-213, F.A.C.; provided that, in either such case, the reporting period shall be the portion of the calendar year the permit was effective up to the date of transfer of responsibility or permanent facility shutdown, as applicable.
- b. In lieu of individually identifying all applicable requirements and specifying times of compliance with, non-compliance with, and deviation from each, the responsible official may use DEP Form No. 62-213.900(7) as such statement of compliance so long as the responsible official identifies all reportable deviations from and all instances of non-compliance with any applicable requirements and includes all information required by the federal regulation relating to each reportable deviation and instance of non-compliance.
- c. The responsible official may treat compliance with all other applicable requirements as a surrogate for compliance with Rule 62-296.320(2), Objectionable Odor Prohibited.

[Rules 62-213.440(3)(a)2. & 3. and (b), F.A.C.]

RR8. Notification of Administrative Permit Corrections.

- a. A facility owner shall notify the Department by letter of minor corrections to information contained in a permit. Such notifications shall include:
- (1) Typographical errors noted in the permit;
 - (2) Name, address or phone number change from that in the permit;
 - (3) A change requiring more frequent monitoring or reporting by the permittee;
 - (4) A change in ownership or operational control of a facility, subject to the following provisions:
 - (a) The Department determines that no other change in the permit is necessary;
 - (b) The permittee and proposed new permittee have submitted an Application for Transfer of Air Permit, and the Department has approved the transfer pursuant to Rule 62-210.300(7), F.A.C.; and
 - (c) The new permittee has notified the Department of the effective date of sale or legal transfer.
 - (5) Changes listed at 40 CFR 72.83(a)(1), (2), (6), (9) and (10), adopted and incorporated by reference at Rule 62-204.800, F.A.C., and changes made pursuant to Rules 62-214.340(1) and (2), F.A.C., to Title V sources subject to emissions limitations or reductions pursuant to 42 USC ss. 7651-7651o;
 - (6) Changes listed at 40 CFR 72.83(a)(11) and (12), adopted and incorporated by reference at Rule 62-204.800, F.A.C., to Title V sources subject to emissions limitations or reductions pursuant to 42 USC ss. 7651-7651o, provided the notification is accompanied by a copy of any EPA determination concerning the similarity of the change to those listed at Rule 62-210.360(1)(e), F.A.C.; and
 - (7) Any other similar minor administrative change at the source.
- b. Upon receipt of any such notification, the Department shall within 60 days correct the permit and provide a corrected copy to the owner.
- c. After first notifying the owner, the Department shall correct any permit in which it discovers errors of the types listed at Rules 62-210.360(1)(a) and (b), F.A.C., and provide a corrected copy to the owner.
- d. For Title V source permits, other than general permits, a copy of the corrected permit shall be provided to EPA and any approved local air program in the county where the facility or any part of the facility is located.

[Rule 62-210.360, F.A.C.]

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FACILITY-WIDE REPORTING REQUIREMENTS
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- RR9. Notification of Startup.** The owners or operator of any emissions unit or facility which has a valid air operation permit which has been shut down more than one year, shall notify the Department in writing of the intent to start up such emissions unit or facility, a minimum of 60 days prior to the intended startup date.
- a. The notification shall include information as to the startup date, anticipated emission rates or pollutants released, changes to processes or control devices which will result in changes to emission rates, and any other conditions which may differ from the valid outstanding operation permit.
 - b. If, due to an emergency, a startup date is not known 60 days prior thereto, the owner shall notify the Department as soon as possible after the date of such startup is ascertained.
- [Rule 62-210.300(5), F.A.C.]
- RR10. Report Submission.** The permittee shall submit all compliance related notifications and reports required of this permit to the Compliance Authority. {See front of permit for address and phone number.}
- RR11. EPA Report Submission.** Any reports, data, notifications, certifications, and requests required to be sent to the United States Environmental Protection Agency, Region 4, should be sent to: Air, Pesticides & Toxics Management Division, United States Environmental Protection Agency, Region 4, Sam Nunn Atlanta Federal Center, 61 Forsyth Street SW, Atlanta, GA 30303-8960. Phone: 404/562-9077.
- RR12. Acid Rain Report Submission.** Acid Rain Program Information shall be submitted, as necessary, to: Department of Environmental Protection, 2600 Blair Stone Road, Mail Station #5510, Tallahassee, Florida 32399-2400. Phone: 850/488-6140. Fax: 850/922-6979.
- RR13. Report Certification.** All reports shall be accompanied by a certification by a responsible official, pursuant to Rule 62-213.420(4), F.A.C. [Rule 62-213.440(1)(b)3.c, F.A.C.]
- RR14. Certification by Responsible Official (R.O.).** In addition to the professional engineering certification required for applications by Rule 62-4.050(3), F.A.C., any application form, report, compliance statement, compliance plan and compliance schedule submitted pursuant to Chapter 62-213, F.A.C., shall contain a certification signed by a responsible official that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. Any responsible official who fails to submit any required information or who has submitted incorrect information shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary information or correct information. [Rule 62-213.420(4), F.A.C.]
- RR15. Confidential Information.** Whenever an applicant submits information under a claim of confidentiality pursuant to Section 403.111, F.S., the applicant shall also submit a copy of all such information and claim directly to EPA. Any permittee may claim confidentiality of any data or other information by complying with this procedure. [Rules 62-213.420(2), and 62-213.440(1)(d)6., F.A.C.]
- RR16. Forms and Instructions.** The forms used by the Department in the Title V source operation program are adopted and incorporated by reference in Rule 62-213.900, F.A.C. The forms are listed by rule number, which is also the form number, and with the subject, title, and effective date. Copies of forms may be obtained by writing to the Department of Environmental Protection, Division of Air Resource Management, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, by contacting the appropriate permitting authority or by accessing the Department's web site at:
<http://www.dep.state.fl.us/air/rules/forms.htm>.
- a. Major Air Pollution Source Annual Emissions Fee Form (Effective 10/12/2008).
 - b. Statement of Compliance Form (Effective 06/02/2002).
 - c. Responsible Official Notification Form (Effective 06/02/2002).
- [Rule 62-213.900, F.A.C.: Forms (1), (7) and (8)]

APPENDIX TR
FACILITY-WIDE TESTING REQUIREMENTS
(version dated 9/12/2008)

Unless otherwise specified in the permit, the following testing requirements apply to each emissions unit for which testing is required. The terms "stack" and "duct" are used interchangeably in this appendix.

- TR1.** Required Number of Test Runs. For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured; provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five-day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five-day period allowed for the test, the Secretary or his or her designee may accept the results of two complete runs as proof of compliance, provided that the arithmetic mean of the two complete runs is at least 20% below the allowable emission limiting standard. [Rule 62-297.310(1), F.A.C.]
- TR2.** Operating Rate During Testing. Testing of emissions shall be conducted with the emissions unit operating at permitted capacity. If it is impractical to test at permitted capacity, an emissions unit may be tested at less than the maximum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test rate until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. [Rule 62-297.310(2), F.A.C.]
- TR3.** Calculation of Emission Rate. For each emissions performance test, the indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule. [Rule 62-297.310(3), F.A.C.]
- TR4.** Applicable Test Procedures.
- a. Required Sampling Time.
- (1) Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.
- (2) Opacity Compliance Tests. When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:
- (a) For batch, cyclical processes, or other operations which are normally completed within less than the minimum observation period and do not recur within that time, the period of observation shall be equal to the duration of the batch cycle or operation completion time.
- (b) The observation period for special opacity tests that are conducted to provide data to establish a surrogate standard pursuant to Rule 62-297.310(5)(k), F.A.C., Waiver of Compliance Test Requirements, shall be established as necessary to properly establish the relationship between a proposed surrogate standard and an existing mass emission limiting standard.

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- (c) The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.
- b. *Minimum Sample Volume.* Unless otherwise specified in the applicable rule or test method, the minimum sample volume per run shall be 25 dry standard cubic feet.
- c. *Required Flow Rate Range.* For EPA Method 5 particulate sampling, acid mist/sulfur dioxide, and fluoride sampling which uses Greenburg Smith type impingers, the sampling nozzle and sampling time shall be selected such that the average sampling rate will be between 0.5 and 1.0 actual cubic feet per minute, and the required minimum sampling volume will be obtained.
- d. *Calibration of Sampling Equipment.* Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1, F.A.C.

TABLE 297.310-1 CALIBRATION SCHEDULE			
ITEM	MINIMUM CALIBRATION FREQUENCY	REFERENCE INSTRUMENT	TOLERANCE
Liquid in glass thermometer	Annually	ASTM Hg in glass ref. thermometer or equivalent or thermometric points	+/-2%
Bimetallic thermometer	Quarterly	Calib. liq. in glass	5° F
Thermocouple	Annually	ASTM Hg in glass ref. thermometer, NBS calibrated reference and potentiometer	5° F
Barometer	Monthly	Hg barometer or NOAA station	+/-1% scale
Pitot Tube	When required or when damaged	By construction or measurements in wind tunnel D greater than 16" and standard pitot tube	See EPA Method 2, Fig. 2-2 & 2-3
Probe Nozzles	Before each test or when nicked, dented, or corroded	Micrometer	+/- 0.001" mean of at least three readings; Max. deviation between readings, 0.004"
Dry Gas Meter and Orifice Meter	1. Full Scale: When received, when 5% change observed, annually	Spirometer or calibrated wet test or dry gas test meter	2%
	2. One Point: Semiannually		
	3. Check after each test series	Comparison check	5%

- e. *Allowed Modification to EPA Method 5.* When EPA Method 5 is required, the following modification is allowed: the heated filter may be separated from the impingers by a flexible tube.

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[Rule 62-297.310(4), F.A.C.]

TR5. Determination of Process Variables.

- a. *Required Equipment.* The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.
- b. *Accuracy of Equipment.* Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.

[Rule 62-297.310(5), F.A.C.]

TR6. Sampling Facilities. Permittees that are required to sample mass emissions from point sources shall install stack sampling ports and provide sampling facilities that meet the requirements of this condition. Sampling facilities include sampling ports, work platforms, access to work platforms, electrical power, and sampling equipment support. All stack sampling facilities must also comply with all applicable Occupational Safety and Health Administration (OSHA) Safety and Health Standards described in 29 CFR Part 1910, Subparts D and E.

- a. *Permanent Test Facilities.* The owner or operator of an emissions unit for which a compliance test, other than a visible emissions test, is required on at least an annual basis, shall install and maintain permanent stack sampling facilities.
- b. *Temporary Test Facilities.* The owner or operator of an emissions unit that is not required to conduct a compliance test on at least an annual basis may use permanent or temporary stack sampling facilities. If the owner chooses to use temporary sampling facilities on an emissions unit, and the Department elects to test the unit, such temporary facilities shall be installed on the emissions unit within 5 days of a request by the Department and remain on the emissions unit until the test is completed.
- c. *Sampling Ports.*
 - (1) All sampling ports shall have a minimum inside diameter of 3 inches.
 - (2) The ports shall be capable of being sealed when not in use.
 - (3) The sampling ports shall be located in the stack at least 2 stack diameters or equivalent diameters downstream and at least 0.5 stack diameter or equivalent diameter upstream from any fan, bend, constriction or other flow disturbance.
 - (4) For emissions units for which a complete application to construct has been filed prior to December 1, 1980, at least two sampling ports, 90 degrees apart, shall be installed at each sampling location on all circular stacks that have an outside diameter of 15 feet or less. For stacks with a larger diameter, four sampling ports, each 90 degrees apart, shall be installed. For emissions units for which a complete application to construct is filed on or after December 1, 1980, at least two sampling ports, 90 degrees apart, shall be installed at each sampling location on all circular stacks that have an outside diameter of 10 feet or less. For stacks with larger diameters, four sampling ports, each 90 degrees apart, shall be installed. On horizontal circular ducts, the ports shall be located so that the probe can enter the stack vertically, horizontally or at a 45 degree angle.
 - (5) On rectangular ducts, the cross sectional area shall be divided into the number of equal areas in accordance with EPA Method 1. Sampling ports shall be provided which allow access to each sampling point. The ports shall be located so that the probe can be inserted perpendicular to the gas flow.
- d. *Work Platforms.*
 - (1) Minimum size of the working platform shall be 24 square feet in area. Platforms shall be at least 3 feet wide.
 - (2) On circular stacks with 2 sampling ports, the platform shall extend at least 110 degrees around the

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stack.

- (3) On circular stacks with more than two sampling ports, the work platform shall extend 360 degrees around the stack.
- (4) All platforms shall be equipped with an adequate safety rail (ropes are not acceptable), toe board, and hinged floor-opening cover if ladder access is used to reach the platform. The safety rail directly in line with the sampling ports shall be removable so that no obstruction exists in an area 14 inches below each sample port and 6 inches on either side of the sampling port.

e. *Access to Work Platform.*

- (1) Ladders to the work platform exceeding 15 feet in length shall have safety cages or fall arresters with a minimum of 3 compatible safety belts available for use by sampling personnel.
- (2) Walkways over free-fall areas shall be equipped with safety rails and toe boards.

f. *Electrical Power.*

- (1) A minimum of two 120-volt AC, 20-amp outlets shall be provided at the sampling platform within 20 feet of each sampling port.
- (2) If extension cords are used to provide the electrical power, they shall be kept on the plant's property and be available immediately upon request by sampling personnel.

g. *Sampling Equipment Support.*

- (1) A three-quarter inch eyebolt and an angle bracket shall be attached directly above each port on vertical stacks and above each row of sampling ports on the sides of horizontal ducts.
 - (a) The bracket shall be a standard 3 inch × 3 inch × one-quarter inch equal-legs bracket which is 1 and one-half inches wide. A hole that is one-half inch in diameter shall be drilled through the exact center of the horizontal portion of the bracket. The horizontal portion of the bracket shall be located 14 inches above the centerline of the sampling port.
 - (b) A three-eighth inch bolt which protrudes 2 inches from the stack may be substituted for the required bracket. The bolt shall be located 15 and one-half inches above the centerline of the sampling port.
 - (c) The three-quarter inch eyebolt shall be capable of supporting a 500 pound working load. For stacks that are less than 12 feet in diameter, the eyebolt shall be located 48 inches above the horizontal portion of the angle bracket. For stacks that are greater than or equal to 12 feet in diameter, the eyebolt shall be located 60 inches above the horizontal portion of the angle bracket. If the eyebolt is more than 120 inches above the platform, a length of chain shall be attached to it to bring the free end of the chain to within safe reach from the platform.
- (2) A complete monorail or dual rail arrangement may be substituted for the eyebolt and bracket.
- (3) When the sample ports are located in the top of a horizontal duct, a frame shall be provided above the port to allow the sample probe to be secured during the test.

[Rule 62-297.310(6), F.A.C.]

TR7. Frequency of Compliance Tests. The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.

a. *General Compliance Testing.*

- (1) The owner or operator of a new or modified emissions unit that is subject to an emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining an operation permit for such emissions unit.
- (2) For excess emission limitations for particulate matter specified in Rule 62-210.700, F.A.C., a compliance test shall be conducted annually while the emissions unit is operating under soot blowing conditions in each federal fiscal year during which soot blowing is part of normal emissions unit operation, except that such test shall not be required in any federal fiscal year in which a fossil fuel steam generator does not burn liquid and/or solid fuel for more than 400 hours other than during startup.

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- (3) The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to sub-subparagraph 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:
 - (a) Did not operate; or
 - (b) In the case of a fuel burning emissions unit, burned liquid and/or solid fuel for a total of no more than 400 hours.
 - (4) During each federal fiscal year (October 1 – September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:
 - (a) Visible emissions, if there is an applicable standard;
 - (b) Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; or 100 tons per year or more of any other regulated air pollutant; and
 - (c) Each NESHAP pollutant, if there is an applicable emission standard.
 - (5) An annual compliance test for particulate matter emissions shall not be required for any fuel burning emissions unit that, in a federal fiscal year, does not burn liquid and/or solid fuel, other than during startup, for a total of more than 400 hours.
 - (6) For fossil fuel steam generators on a semi-annual particulate matter emission compliance testing schedule, a compliance test shall not be required for any six-month period in which liquid and/or solid fuel is not burned for more than 200 hours other than during startup.
 - (7) For emissions units electing to conduct particulate matter emission compliance testing quarterly pursuant to paragraph 62-296.405(2)(a), F.A.C., a compliance test shall not be required for any quarter in which liquid and/or solid fuel is not burned for more than 100 hours other than during startup.
 - (8) Any combustion turbine that does not operate for more than 400 hours per year shall conduct a visible emissions compliance test once per each five-year period, coinciding with the term of its air operation permit.
 - (9) The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.
 - (10) An annual compliance test conducted for visible emissions shall not be required for units exempted from air permitting pursuant to subsection 62-210.300(3), F.A.C.; units determined to be insignificant pursuant to subparagraph 62-213.300(2)(a)1., A.C., or paragraph 62-213.430(6)(b), F.A.C.; or units permitted under the General Permit provisions in paragraph 62-210.300(4)(a) or Rule 62-213.300, F.A.C., unless the general permit specifically requires such testing.
- b. *Special Compliance Tests.* When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained Department rule or in a permit issued pursuant to those rules is being violated, it shall require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.
- c. *Waiver of Compliance Test Requirements.* If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in

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Rule 62-297.620, F.A.C., that the compliance the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of paragraph 62-297.310(7)(b), F.A.C., shall apply.

[Rule 62-297.310(7), F.A.C.]

TR8. Test Reports.

- a. The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test.
- b. The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed.
- c. The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information.
 - (1) The type, location, and designation of the emissions unit tested.
 - (2) The facility at which the emissions unit is located.
 - (3) The owner or operator of the emissions unit.
 - (4) The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
 - (5) The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
 - (6) The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
 - (7) A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
 - (8) The date, starting time and duration of each sampling run.
 - (9) The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
 - (10) The number of points sampled and configuration and location of the sampling plane.
 - (11) For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
 - (12) The type, manufacturer and configuration of the sampling equipment used.
 - (13) Data related to the required calibration of the test equipment.
 - (14) Data on the identification, processing and weights of all filters used.
 - (15) Data on the types and amounts of any chemical solutions used.
 - (16) Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
 - (17) The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
 - (18) All measured and calculated data required to be determined by each applicable test procedure for each run.
 - (19) The detailed calculations for one run that relate the collected data to the calculated emission rate.
 - (20) The applicable emission standard and the resulting maximum allowable emission rate for the

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emissions unit plus the test result in the same form and unit of measure.

- (21) A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

[Rule 62-297.310(8), F.A.C.]

APPENDIX TV
TITLE V GENERAL CONDITIONS
(version dated 09/17/2009)

Operation

- TV1. General Prohibition.** A permitted installation may only be operated, maintained, constructed, expanded or modified in a manner that is consistent with the terms of the permit.
[Rule 62-4.030, Florida Administrative Code (F.A.C.)]
- TV2. Validity.** This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department. [Rule 62-4.160(2), F.A.C.]
- TV3. Proper Operation and Maintenance.** The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules. [Rule 62-4.160(6), F.A.C.]
- TV4. Not federally enforceable. Health, Safety and Welfare.** To ensure protection of public health, safety, and welfare, any construction, modification, or operation of an installation which may be a source of pollution, shall be in accordance with sound professional engineering practices pursuant to Chapter 471, F.S. [Rule 62-4.050(3), F.A.C.]
- TV5. Continued Operation.** An applicant making timely and complete application for permit, or for permit renewal, shall continue to operate the source under the authority and provisions of any existing valid permit or Florida Electrical Power Plant Siting Certification, and in accordance with applicable requirements of the Acid Rain Program, applicable requirements of the CAIR Program, and applicable requirements of the Hg Budget Trading Program, until the conclusion of proceedings associated with its permit application or until the new permit becomes effective, whichever is later, provided the applicant complies with all the provisions of subparagraphs 62-213.420(1)(b)3., F.A.C. [Rule 62-213.420(1)(b)2., F.A.C.]
- TV6. Changes Without Permit Revision.** Title V sources having a valid permit issued pursuant to Chapter 62-213, F.A.C., may make the following changes without permit revision, provided that sources shall maintain source logs or records to verify periods of operation:
- a. Permitted sources may change among those alternative methods of operation allowed by the source's permit as provided by the terms of the permit;
 - b. A permitted source may implement operating changes, as defined in Rule 62-210.200, F.A.C., after the source submits any forms required by any applicable requirement and provides the Department and EPA with at least 7 days written notice prior to implementation. The source and the Department shall attach each notice to the relevant permit;
 - (1) The written notice shall include the date on which the change will occur, and a description of the change within the permitted source, the pollutants emitted and any change in emissions, and any term or condition becoming applicable or no longer applicable as a result of the change;
 - (2) The permit shield described in Rule 62-213.460, F.A.C., shall not apply to such changes;
 - c. Permitted sources may implement changes involving modes of operation only in accordance with Rule 62-213.415, F.A.C.
- [Rule 62-213.410, F.A.C.]
- TV7. Circumvention.** No person shall circumvent any air pollution control device, or allow the emission of air pollutants without the applicable air pollution control device operating properly. [Rule 62-210.650, F.A.C.]

Compliance

- TV8. Compliance with Chapter 403, F.S., and Department Rules.** Except as provided at Rule 62-213.460, Permit Shield, F.A.C., the issuance of a permit does not relieve any person from complying with the requirements of Chapter 403, F.S., or Department rules. [Rule 62-4.070(7), F.A.C.]

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- TV9. Compliance with Federal, State and Local Rules.** Except as provided at Rule 62-213.460, F.A.C., issuance of a permit does not relieve the owner or operator of a facility or an emissions unit from complying with any applicable requirements, any emission limiting standards or other requirements of the air pollution rules of the Department or any other such requirements under federal, state, or local law. [Rule 62-210.300, F.A.C.]
- TV10. Binding and enforceable.** The terms, conditions, requirements, limitations and restrictions set forth in this permit, are "permit conditions" and are binding and enforceable pursuant to Sections 403.141, 403.727, or 403.859 through 403.861, F.S. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions. [Rule 62-4.160(1), F.A.C.]
- TV11. Timely information.** When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware the relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly. [Rule 62-4.160(15), F.A.C.]
- TV12. Halting or reduction of source activity.** It shall not be a defense for a permittee in an enforcement action that maintaining compliance with any permit condition would necessitate halting of or reduction of the source activity. [Rule 62-213.440(1)(d)3., F.A.C.]
- TV13. Final permit action.** Any Title V source shall comply with all the terms and conditions of the existing permit until the Department has taken final action on any permit renewal or any requested permit revision, except as provided at Rule 62-213.412(2), F.A.C. [Rule 62-213.440(1)(d)4., F.A.C.]
- TV14. Sudden and unforeseeable events beyond the control of the source.** A situation arising from sudden and unforeseeable events beyond the control of the source which causes an exceedance of a technology-based emissions limitation because of unavoidable increases in emissions attributable to the situation and which requires immediate corrective action to restore normal operation, shall be an affirmative defense to an enforcement action in accordance with the provisions and requirements of 40 CFR 70.6(g)(2) and (3), hereby adopted and incorporated by reference. [Rule 62-213.440(1)(d)5., F.A.C.]
- TV15. Permit Shield.** Except as provided in Chapter 62-213, F.A.C., compliance with the terms and conditions of a permit issued pursuant to Chapter 62-213, F.A.C., shall, as of the effective date of the permit, be deemed compliance with any applicable requirements in effect, provided that the source included such applicable requirements in the permit application. Nothing in this condition or in any permit shall alter or affect the ability of EPA or the Department to deal with an emergency, the liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance, or the requirements of the Federal Acid Rain Program, the CAIR Program. [Rule 62-213.460, F.A.C.]
- TV16. Compliance With Federal Rules.** A facility or emissions unit subject to any standard or requirement of 40 CFR, Part 60, 61, 63 or 65, adopted and incorporated by reference at Rule 62-204.800, F.A.C., shall comply with such standard or requirement. Nothing in this chapter shall relieve a facility or emissions unit from complying with such standard or requirement, provided, however, that where a facility or emissions unit is subject to a standard established in Rule 62-296, F.A.C., such standard shall also apply. [Rule 62-296.100(3), F.A.C.]

Permit Procedures

- TV17. Permit Revision Procedures.** The permittee shall revise its permit as required by Rules 62-213.400, 62-213.412, 62-213.420, 62-213.430 & 62-4.080, F.A.C.; and, in addition, the Department shall revise permits as provided in Rule 62-4.080, F.A.C. & 40 CFR 70.7(f).
- TV18. Permit Renewal.** The permittee shall renew its permit as required by Rules 62-4.090, 62.213.420(1) and 62-213.430(3), F.A.C. Permits being renewed are subject to the same requirements that apply to permit

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issuance at the time of application for renewal. Permit renewal applications shall contain that information identified in Rules 62-210.900(1) [Application for Air Permit - Long Form], 62-213.420(3) [Required Information], 62-213.420(6) [CAIR Part Form], F.A.C. Unless a Title V source submits a timely and complete application for permit renewal in accordance with the requirements this rule, the existing permit shall expire and the source's right to operate shall terminate. For purposes of a permit renewal, a timely application is one that is submitted 225 days before the expiration of a permit that expires on or after June 1, 2009. No Title V permit will be issued for a new term except through the renewal process. [Rules 62-213.420 & 62-213.430, F.A.C.]

TV19. Insignificant Emissions Units or Pollutant-Emitting Activities. The permittee shall identify and evaluate insignificant emissions units and activities as set forth in Rule 62-213.430(6), F.A.C.

TV20. Savings Clause. If any portion of the final permit is invalidated, the remainder of the permit shall remain in effect. [Rule 62-213.440(1)(d)1., F.A.C.]

TV21. Suspension and Revocation.

- a. Permits shall be effective until suspended, revoked, surrendered, or expired and shall be subject to the provisions of Chapter 403, F.S., and rules of the Department.
- b. Failure to comply with pollution control laws and rules shall be grounds for suspension or revocation.
- c. A permit issued pursuant to Chapter 62-4, F.A.C., shall not become a vested property right in the permittee. The Department may revoke any permit issued by it if it finds that the permit holder or his agent:
 - (1) Submitted false or inaccurate information in his application or operational reports.
 - (2) Has violated law, Department orders, rules or permit conditions.
 - (3) Has failed to submit operational reports or other information required by Department rules.
 - (4) Has refused lawful inspection under Section 403.091, F.S.
- d. No revocation shall become effective except after notice is served by personal services, certified mail, or newspaper notice pursuant to Section 120.60(7), F.S., upon the person or persons named therein and a hearing held if requested within the time specified in the notice. The notice shall specify the provision of the law, or rule alleged to be violated, or the permit condition or Department order alleged to be violated, and the facts alleged to constitute a violation thereof.

[Rule 62-4.100, F.A.C.]

TV22. Not federally enforceable. Financial Responsibility. The Department may require an applicant to submit proof of financial responsibility and may require the applicant to post an appropriate bond to guarantee compliance with the law and Department rules. [Rule 62-4.110, F.A.C.]

TV23. Emissions Unit Reclassification.

- a. Any emissions unit whose operation permit has been revoked as provided for in Chapter 62-4, F.A.C., shall be deemed permanently shut down for purposes of Rule 62-212.500, F.A.C. Any emissions unit whose permit to operate has expired without timely renewal or transfer may be deemed permanently shut down, provided, however, that no such emissions unit shall be deemed permanently shut down if, within 20 days after receipt of written notice from the Department, the emissions unit owner or operator demonstrates that the permit expiration resulted from inadvertent failure to comply with the requirements of Rule 62-4.090, F.A.C., and that the owner or operator intends to continue the emissions unit in operation, and either submits an application for an air operation permit or complies with permit transfer requirements, if applicable.
- b. If the owner or operator of an emissions unit which is so permanently shut down, applies to the Department for a permit to reactivate or operate such emissions unit, the emissions unit will be reviewed and permitted as a new emissions unit.

[Rule 62-210.300(6), F.A.C.]

TV24. Transfer of Permits. Per Rule 62-4.160(11), F.A.C., this permit is transferable only upon Department approval in accordance with Rule 62-4.120, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department. The permittee

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transferring the permit shall remain liable for corrective actions that may be required as a result of any violations occurring prior to the sale or legal transfer of the facility. The permittee shall also comply with the requirements of Rule 62-210.300(7), F.A.C., and use DEP Form No. 62-210.900(7). [Rules 62-4.160(11), 62-4.120, and 62-210.300(7), F.A.C.]

Rights, Title, Liability, and Agreements

TV25. Rights. As provided in Subsections 403.987(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in this permit. [Rule 62-4.160(3), F.A.C.]

TV26. Title. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title. [Rule 62-4.160(4), (F.A.C.)]

TV27. Liability. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of F.S. and Department rules, unless specifically authorized by an order from the Department. [Rule 62-4.160(5), F.A.C.]

TV28. Agreements.

- a. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at reasonable times, access to the premises where the permitted activity is located or conducted to:
 - (1) Have access to and copy any records that must be kept under conditions of the permit;
 - (2) Inspect the facility, equipment, practices, or operations regulated or required under this permit; and,
 - (3) Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules. Reasonable time may depend on the nature of the concern being investigated.
- b. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.111 and 403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.
- c. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

[Rules 62-4.160(7), (9), and (10), F.A.C.]

Recordkeeping and Emissions Computation

TV29. Permit. The permittee shall keep this permit or a copy thereof at the work site of the permitted activity. [Rule 62-4.160(12), F.A.C.]

TV30. Recordkeeping.

- a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
- b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These

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materials shall be retained at least five (5) years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

- c. Records of monitoring information shall include:
- (1) The date, exact place, and time of sampling or measurements, and the operating conditions at the time of sampling or measurement;
 - (2) The person responsible for performing the sampling or measurements;
 - (3) The dates analyses were performed;
 - (4) The person and company that performed the analyses;
 - (5) The analytical techniques or methods used;
 - (6) The results of such analyses.

[Rules 62-4.160(14) and 62-213.440(1)(b)2., F.A.C.]

TV31. Emissions Computation. Pursuant to Rule 62-210.370, F.A.C., the following required methodologies are to be used by the owner or operator of a facility for computing actual emissions, baseline actual emissions, and net emissions increase, as defined at Rule 62-210.200, F.A.C., and for computing emissions for purposes of the reporting requirements of subsection 62-210.370(3) and paragraph 62-212.300(1)(e), F.A.C., or of any permit condition that requires emissions be computed in accordance with Rule 62-210.370, F.A.C. Rule 62-210.370, F.A.C., is not intended to establish methodologies for determining compliance with the emission limitations of any air permit.

For any of the purposes specified above, the owner or operator of a facility shall compute emissions in accordance with the requirements set forth in this subsection.

- a. **Basic Approach.** The owner or operator shall employ, on a pollutant-specific basis, the most accurate of the approaches set forth below to compute the emissions of a pollutant from an emissions unit; provided, however, that nothing in this rule shall be construed to require installation and operation of any continuous emissions monitoring system (CEMS), continuous parameter monitoring system (CPMS), or predictive emissions monitoring system (PEMS) not otherwise required by rule or permit, nor shall anything in this rule be construed to require performance of any stack testing not otherwise required by rule or permit.
- (1) If the emissions unit is equipped with a CEMS meeting the requirements of paragraph 62-210.370(2)(b), F.A.C., the owner or operator shall use such CEMS to compute the emissions of the pollutant, unless the owner or operator demonstrates to the department that an alternative approach is more accurate because the CEMS represents still-emerging technology.
 - (2) If a CEMS is not available or does not meet the requirements of paragraph 62-210.370(2)(b), F.A.C., but emissions of the pollutant can be computed pursuant to the mass balance methodology of paragraph 62-210.370(2)(c), F.A.C., the owner or operator shall use such methodology, unless the owner or operator demonstrates to the department that an alternative approach is more accurate.
 - (3) If a CEMS is not available or does not meet the requirements of paragraph 62-210.370(2)(b), F.A.C., and emissions cannot be computed pursuant to the mass balance methodology, the owner or operator shall use an emission factor meeting the requirements of paragraph 62-210.370(2)(d), F.A.C., unless the owner or operator demonstrates to the department that an alternative approach is more accurate.
- b. **Continuous Emissions Monitoring System (CEMS).**
- (1) An owner or operator may use a CEMS to compute emissions of a pollutant for purposes of this rule provided:
 - (a) The CEMS complies with the applicable certification and quality assurance requirements of 40 CFR Part 60, Appendices B and F, or, for an acid rain unit, the certification and quality assurance requirements of 40 CFR Part 75, all adopted by reference at Rule 62-204.800, F.A.C.; or,
 - (b) The owner or operator demonstrates that the CEMS otherwise represents the most accurate means of computing emissions for purposes of this rule.
 - (2) Stack gas volumetric flow rates used with the CEMS to compute emissions shall be obtained by the most accurate of the following methods as demonstrated by the owner or operator:

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- (a) A calibrated flowmeter that records data on a continuous basis, if available; or
- (b) The average flow rate of all valid stack tests conducted during a five-year period encompassing the period over which the emissions are being computed, provided all stack tests used shall represent the same operational and physical configuration of the unit.
- (3) The owner or operator may use CEMS data in combination with an appropriate f-factor, heat input data, and any other necessary parameters to compute emissions if such method is demonstrated by the owner or operator to be more accurate than using a stack gas volumetric flow rate as set forth at subparagraph 62-210.370(2)(b)2., F.A.C., above.
- c. Mass Balance Calculations.
 - (1) An owner or operator may use mass balance calculations to compute emissions of a pollutant for purposes of this rule provided the owner or operator:
 - (a) Demonstrates a means of validating the content of the pollutant that is contained in or created by all materials or fuels used in or at the emissions unit; and,
 - (b) Assumes that the emissions unit emits all of the pollutant that is contained in or created by any material or fuel used in or at the emissions unit if it cannot otherwise be accounted for in the process or in the capture and destruction of the pollutant by the unit's air pollution control equipment.
 - (2) Where the vendor of a raw material or fuel which is used in or at the emissions unit publishes a range of pollutant content from such material or fuel, the owner or operator shall use the highest value of the range to compute the emissions, unless the owner or operator demonstrates using site-specific data that another content within the range is more accurate.
 - (3) In the case of an emissions unit using coatings or solvents, the owner or operator shall document, through purchase receipts, records and sales receipts, the beginning and ending VOC inventories, the amount of VOC purchased during the computational period, and the amount of VOC disposed of in the liquid phase during such period.
- d. Emission Factors.
 - (1) An owner or operator may use an emission factor to compute emissions of a pollutant for purposes of this rule provided the emission factor is based on site-specific data such as stack test data, where available, unless the owner or operator demonstrates to the department that an alternative emission factor is more accurate. An owner or operator using site-specific data to derive an emission factor, or set of factors, shall meet the following requirements.
 - (a) If stack test data are used, the emission factor shall be based on the average emissions per unit of input, output, or gas volume, whichever is appropriate, of all valid stack tests conducted during at least a five-year period encompassing the period over which the emissions are being computed, provided all stack tests used shall represent the same operational and physical configuration of the unit.
 - (b) Multiple emission factors shall be used as necessary to account for variations in emission rate associated with variations in the emissions unit's operating rate or operating conditions during the period over which emissions are computed.
 - (c) The owner or operator shall compute emissions by multiplying the appropriate emission factor by the appropriate input, output or gas volume value for the period over which the emissions are computed. The owner or operator shall not compute emissions by converting an emission factor to pounds per hour and then multiplying by hours of operation, unless the owner or operator demonstrates that such computation is the most accurate method available.
 - (2) If site-specific data are not available to derive an emission factor, the owner or operator may use a published emission factor directly applicable to the process for which emissions are computed. If no directly-applicable emission factor is available, the owner or operator may use a factor based on a similar, but different, process.

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- e. Accounting for Emissions During Periods of Missing Data from CEMS, PEMS, or CPMS. In computing the emissions of a pollutant, the owner or operator shall account for the emissions during periods of missing data from CEMS, PEMS, or CPMS using other site-specific data to generate a reasonable estimate of such emissions.
- f. Accounting for Emissions During Periods of Startup and Shutdown. In computing the emissions of a pollutant, the owner or operator shall account for the emissions during periods of startup and shutdown of the emissions unit.
- g. Fugitive Emissions. In computing the emissions of a pollutant from a facility or emissions unit, the owner or operator shall account for the fugitive emissions of the pollutant, to the extent quantifiable, associated with such facility or emissions unit.
- h. Recordkeeping. The owner or operator shall retain a copy of all records used to compute emissions pursuant to this rule for a period of five years from the date on which such emissions information is submitted to the department for any regulatory purpose.

[Rule 62-210.370(1) & (2), F.A.C.]

Responsible Official

TV32. Designation and Update. The permittee shall designate and update a responsible official as required by Rule 62-213.202, F.A.C.

Prohibitions and Restrictions

TV33. Asbestos. This permit does not authorize any demolition or renovation of the facility or its parts or components which involves asbestos removal. This permit does not constitute a waiver of any of the requirements of Chapter 62-257, F.A.C., and 40 CFR 61, Subpart M, National Emission Standard for Asbestos, adopted and incorporated by reference in Rule 62-204.800, F.A.C. Compliance with Chapter 62-257, F.A.C., and 40 CFR 61, Subpart M, Section 61.145, is required for any asbestos demolition or renovation at the source. [40 CFR 61; Rule 62-204.800, F.A.C.; and, Chapter 62-257, F.A.C.]

TV34. Refrigerant Requirements. Any facility having refrigeration equipment, including air conditioning equipment, which uses a Class I or II substance (listed at 40 CFR 82, Subpart A, Appendices A and B), and any facility which maintains, services, or repairs motor vehicles using a Class I or Class II substance as refrigerant must comply with all requirements of 40 CFR 82, Subparts B and F, and with Chapter 62-281, F.A.C.

TV35. Open Burning Prohibited. Unless otherwise authorized by Rule 62-296.320(3) or Chapter 62-256, F.A.C., open burning is prohibited.

APPENDIX U

LIST OF UNREGULATED EMISSIONS UNITS AND/OR ACTIVITIES

Unregulated Emissions Units and/or Activities. An emissions unit which emits no “emissions-limited pollutant” and which is subject to no unit-specific work practice standard, though it may be subject to regulations applied on a facility-wide basis (e.g., unconfined emissions, odor, general opacity) or to regulations that require only that it be able to prove exemption from unit-specific emissions or work practice standards.

The below listed emissions units and/or activities are neither ‘regulated emissions units’ nor ‘insignificant emissions units’.

<u>E.U. ID No.</u>	<u>Brief Description of Emissions Units and/or Activity</u>
-007	Emergency Generators. <i>One (1) or more emergency generators provided:</i> - The unit is not subject to the Acid Rain Program, CAIR Program, or any unit-specific applicable requirement. - The unit shall not burn used oil or any fuels other than natural gas, propane, gasoline, and diesel fuel. - Collectively, all units claiming this exemption at the same facility shall not burn more than the <i>collective maximum annual amount of a single fuel</i>, as given in d., or equivalent collective maximum annual amounts of multiple fuels, as addressed in e. - If burning only one (1) type of fuel, the collective annual amount of fuel burned by all units claiming this exemption at the same facility shall not exceed 2,700 gallons of gasoline, 32,000 gallons of diesel fuel, 144,000 gallons of propane, or 4.4 million standard cubic feet of natural gas. - If burning more than one (1) type of fuel, the equivalent collective annual amount of each fuel burned by the units claiming this exemption at the same facility shall not exceed the collective maximum annual amount of such fuel, as given in d., multiplied by a fuel percentage. The fuel percentage is the percentage ratio of the total amount of the fuel burned by all units claiming this exemption at the same facility to the total amount of such fuel allowed to be burned by all units claiming this exemption at the same facility pursuant to d. The sum of the fuel percentages for all fuels burned by the units claiming this exemption at the same facility must be less than or equal to 100 percent.
-008	Heating Units and General Purpose Internal Combustion Engines. <i>General purpose internal combustion engines, and other reciprocating internal combustion devices,</i> provided the following conditions are met with respect to each such unit. - The unit is not subject to the Acid Rain Program, CAIR Program, or any unit-specific applicable requirement. - The unit shall not burn used oil or any fuels other than natural gas, propane, gasoline, and diesel fuel. - Collectively, all units claiming this exemption at the same facility shall not burn more than the <i>collective maximum annual amount of a single fuel</i>, as given in d., or equivalent collective maximum annual amounts of multiple fuels, as addressed in e. - If burning only one (1) type of fuel, the collective annual amount of fuel burned by all units claiming this exemption at the same facility shall not exceed 2,700 gallons of gasoline, 32,000 gallons of diesel fuel, 144,000 gallons of propane, or 4.4 million standard cubic feet of natural gas. - If burning more than one (1) type of fuel, the equivalent collective annual amount of each fuel burned by the units claiming this exemption at the same facility shall not exceed the collective maximum annual amount of such fuel, as given in d., multiplied by a fuel percentage. The fuel percentage is the percentage ratio of the total amount of the fuel burned by all units claiming this exemption at the same facility to the total amount of such fuel allowed to be burned by all units claiming this exemption at the same facility pursuant to d. The sum of the fuel percentages for all fuels burned by the units claiming this exemption at the same facility must be less than or equal to 100 percent.

REFERENCED ATTACHMENTS.

The Following Attachments Are Included for Applicant Convenience:

Table 1, Summary of Air Pollutant Standards and Terms.

Table 2, Compliance Requirements.

Table H, Permit History.

Table 1, Summary of Air Pollutant Standards and Terms									
Tampa Electric Company Polk Power Station					Final Permit No. 1050233-026-AV Facility ID No. 1050233				
This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.									
E.U. ID No.		Brief Description							
[-001]		260 MW Combined Cycle Combustion Turbine No. 1							
Pollutant Name or Parameter		Fuel(s)	Hours/Year	Allowable Emissions Standard(s)		lbs./hour	TPY	Equivalent Emissions*	
								lbs./hour	TPY
2 YEAR DEMONSTRATION PERIOD (This period has passed and is kept for reference only.)									
NO _x	Oil	10% Capacity	42 to 48 ppmvd	311	N/A				PSD-FL-194(A)
NO _x	Syngas	8,760		664.2	2,908.3				PSD-FL-194(A)
VOC	Oil	10% Capacity		32	N/A				PSD-FL-194(A)
VOC	Syngas	8,760		3	38.5				PSD-FL-194(A)
CO	Oil	10% Capacity		99	N/A				PSD-FL-194(A)
CO	Syngas	8,760		98	430.1				PSD-FL-194(A)
PM / PM ₁₀	Oil	10% Capacity		17	N/A				PSD-FL-194(A)
PM / PM ₁₀	Syngas	8,760		17	74.5				PSD-FL-194(A)
Pb	Oil	10% Capacity		0.101	N/A				PSD-FL-194(A)
Pb	Syngas	8,760		0.023	0.13				PSD-FL-194(A)
SO ₂	Oil	10% Capacity		92.2	N/A				PSD-FL-194(A)
SO ₂	Syngas	8,760		518	2269				PSD-FL-194(A)
Sulfuric Acid Mist	Syngas	8,760		55	241				PSD-FL-194(A)
Inorganic Arsenic	Syngas	8,760		0.08	0.35				PSD-FL-194(A)
Beryllium	Syngas	8,760		0.0001	0.0029				PSD-FL-194(A)
Mercury	Syngas	8,760		0.025	0.11				PSD-FL-194(A)
POST DEMONSTRATION PERIOD									
NO _x	Oil	10% Capacity	42 to 48 ppmvd	311	N/A				PSD-FL-194(A)
NO _x	Syngas	8,760	15 ppmvd	132	620				PSD-FL-194F
VOC	Oil	10% Capacity	0.028 lb/MMBtu	32	N/A				PSD-FL-194(A)
VOC	Syngas	8,760	0.0017 lb/MMBtu	3	38.5				PSD-FL-194(A)
CO	Oil	10% Capacity	40 ppmvd	99	N/A				PSD-FL-194(A)
CO	Syngas	8,760	25 ppmvd	98	430.1				PSD-FL-194(A)
PM/PM ₁₀	Oil	10% Capacity	0.009 lb/MMBtu	17	N/A				PSD-FL-194(A)
PM/PM ₁₀	Syngas	8,760	0.013 lb/MMBtu	17	74.5				PSD-FL-194(A)
Pb	Oil	10% Capacity	5.30E-5 lb/MMBtu	0.101	N/A				PSD-FL-194(A)
Pb	Syngas	8,760	2.41E-6 lb / MMBtu	0.0035	0.067				PSD-FL-194(A)
SO ₂	Oil	10% Capacity	0.048 lb/MMBtu	92.2	N/A				PSD-FL-194(A)
SO ₂	Oil	10% Capacity	0.05% sulfur by weight						PSD-FL-194
SO ₂	Syngas	8,760	0.17 lb/MMBtu	357	1,563.7				PSD-FL-194(A)
Sulfuric Acid Mist	Syngas	8,760		55	241				PSD-FL-194(A)
Inorganic Arsenic	Syngas	8,760		0.0006	0.019				PSD-FL-194(A)
Beryllium	Syngas	8,760		0.0001	0.0029				PSD-FL-194(A)
Mercury	Syngas	8,760		0.0034	0.017				PSD-FL-194(A)
VE	Oil	10% Capacity	20 % opacity						PSD-FL-194
VE	Syngas	8,760	10% opacity						PSD-FL-194
Notes:									
* The "Equivalent Emissions" listed are for informational purposes only.									

Table 1, Summary of Air Pollutant Standards and Terms									
Tampa Electric Company					Final Permit No. 1050233-026-AV				
Polk Power Station					Facility ID No. 1050233				
This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.									
E.U. ID No.		Brief Description							
{-003}		120 Million Btu per Hour Auxiliary Boiler							
Pollutant Name			Allowable Emissions			Equivalent Emissions*			
or Parameter	Fuel(s)	Hours/Year	Standard(s)	lbs./hour	TPY	lbs./hour	TPY	Regulatory Citation(s)	See permit condition(s)
VE	Oil	8,760	20% except 27% one six-min. / hr					40CFR60.43b(f) & PSD-FL-194(A)	III.B.5.
PM	Oil	8,760	0.10 lb / MMBtu			12.0	21.3**	40CFR60.43b(b)	III.B.1., 4. & 6.
SO ₂	Oil	8,760	0.80 lb / MMBtu			96.0	392.6**	40CFR60.42b(a)&(j)	III.B.1., 4. & 7.
SO ₂	Oil	8,760	0.05% sulfur by weight			6.6	12.1	PSD-FL-194	III.B.9.
NO _x	Oil	8,760	0.10 lb / MMBtu			12.0	21.3**	40CFR60.44b(a) & PSD-FL-194(A)	III.B.1., 4. & 11.
Notes:									
* The "Equivalent Emissions" listed are for informational purposes only.									
** Based on 3,000 hrs. at capacity and 5,760 hrs. at less than capacity (capacity is defined as 90-100% of maximum operation rate)									

Table 1, Summary of Air Pollutant Standards and Terms									
Tampa Electric Company						Final Permit No. 1050233-026-AV			
Polk Power Station						Facility ID No. 1050233			
E.U. ID No.		Brief Description							
[-004]		Sulfuric Acid Plant							
Pollutant Name			Allowable Emissions			Equivalent Emissions*			
or Parameter	Fuel(s)	Hours/Year	Standard(s)	lbs./hour	TPY	lbs./hour	TPY	Regulatory Citation(s)	See permit condition(s)
VE	Propane	8,760	10% opacity					Rule 62-296.402(2)(a), F.A.C.	III.C.5.
SO ₂	Propane	8,760	4 lb / ton 100% acid			49.8	218.3	Rule 62-296.402(2)(b), F.A.C.	III.C.2. & 6.
SAM	Propane	8,760	0.15 lb / ton 100% acid			1.87	8.2	Rule 62-296.402(2)(c), F.A.C.	III.C.2. & 7.
Notes:									
* The "Equivalent Emissions" listed are for informational purposes only.									

Table 1, Summary of Air Pollutant Standards and Terms									
Tampa Electric Company					Final Permit No. 1050233-026-AV				
Polk Power Station					Facility ID No. 1050233				
This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.									
E.U. ID No.		Brief Description							
[-005]		Solid Fuel Handling System							
Pollutant Name or Parameter		Allowable Emissions		Equivalent Emissions*				Regulatory Citation(s)	
		Fuel(s)	Hours/Year	Standard(s)	lbs./hour	TPY	lbs./hour	TPY	See permit condition(s)
VE			8,760	5% opacity					PSD-FL-194(A)
III.D.3.									
Notes:									
* The "Equivalent Emissions" listed are for informational purposes only.									

Table 1, Summary of Air Pollutant Standards and Terms									
Tampa Electric Company Polk Power Station						Final Permit No. 1050233-026-AV Facility ID No. 1050233			
This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.									
E.U. ID No.		Brief Description							
[-006]		Solid Fuel Gasification System							
Pollutant Name or Parameter			Allowable Emissions			Equivalent Emissions*			
	Fuel(s)	Hours/Year	Standard(s)	lbs./hour	TPY	lbs./hour	TPY	Regulatory Citation(s)	See permit condition(s)
		8,760	2.325 tons / day coal					PSD-FL-194	III.E.2.
VE (flare)			<20%					Rule 62-296.320(4)(b)1., F.A.C.	III.E.4.
SO ₂			4.7% sulfur by weight			NA	NA	PSD-FL-194, as amended	III.E.5.
Notes:									
* The "Equivalent Emissions" listed are for informational purposes only.									

Table 1, Summary of Air Pollutant Standards and Terms											
Tampa Electric Company Polk Power Station						Final Permit No. 1050233-026-AV Facility ID No. 1050233					
This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.											
E.U. ID No.		Brief Description									
[-009]		165 MW Simple Cycle Combustion Turbine No. 2									
[-010]		165 MW Simple Cycle Combustion Turbine No. 3									
The following apply to each individual emissions unit listed above.											
Pollutant Name or Parameter		Fuel(s)	Hours/Year	Allowable Emissions Standard(s) lbs./hour		TPY	Equivalent Emissions* lbs./hour		TPY	Regulatory Citation(s)	See permit condition(s)
NO _x	Nat. Gas	4,380	10.5 ppmvd 24-hr avg	59			129.2			PSD-FL-263	III.F.6.
NO _x	Oil	750	42 ppmvd 3-hr avg.	319			119.6			PSD-FL-263	III.F.7.
SO ₂	Nat. Gas	4,380	2 gr/100 scf	9.2			20.1			PSD-FL-263	III.F.8.
SO ₂	Oil	750	0.05% sulfur by weight	98.1			36.8			PSD-FL-263	III.F.8.
VE	All	4,380	10% opacity							PSD-FL-263	III.F.9.
VOC	Nat. Gas	4,380	1.4 ppmvw	2.8			6.1			PSD-FL-263	III.F.10.
VOC	Oil	750	3.5 ppmvw	7			2.6			PSD-FL-263	III.F.10.
CO	Nat. Gas	4,380	12 ppmvd	38			83.2			PSD-FL-263	III.F.11.
CO	Oil	750	20 ppmvd	65			24.4			PSD-FL-263	III.F.11.
Notes:											
* The "Equivalent Emissions" listed are for informational purposes only.											

Table 1, Summary of Air Pollutant Standards and Terms									
Tampa Electric Company Polk Power Station			Final Permit No. 1050233-026-AV Facility ID No. 1050233						
This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.									
E.U. ID No.	Brief Description								
[-011]	165 MW Simple Cycle Combustion Turbine No. 4								
[-012]	165 MW Simple Cycle Combustion Turbine No. 5								
Unless otherwise indicated, the following apply to each individual emissions unit listed above.									
Pollutant Name or Parameter	Fuel(s)	Hours/Year	Allowable Emissions			Equivalent Emissions*		Regulatory Citations	See permit condition(s)
			Standard(s)	lbs./hour	TPY	lbs./hour	TPY		
-011 & -012 CO combined	Natural Gas	4,380			99.0	45.2		PSD-FL-363	III.G.10.
NO _x	Natural Gas	4,380	9.0 ppmvd @ 15% O ₂ 24-hr block			60.9	133.4	PSD-FL-363	III.G.10.
PM/PM ₁₀	Natural Gas	4,380	2 grains S/100 SCF gas			18.0	39.4	PSD-FL-363	III.G.10.
VE	Natural Gas	4,380	10% opacity, except 20% for up to 10-6-min. avgs./day					PSD-FL-363	III.G.11.
SO ₂	Natural Gas	4,380	2 grains S/100 SCF gas			10.2	22.3	PSD-FL-363	III.G.10.
Notes:									
* The "Equivalent Emissions" listed are for informational purposes only.									

Table 2, Summary of Compliance Requirements							
Tampa Electric Company				Final Permit No. 1050233-026-AV			
Polk Power Station				Facility ID No. 1050233			
This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.							
E.U. ID No.	Brief Description						
[-001]	260 MW Combined Cycle Combustion Turbine No. 1						
			Testing	Frequency	Min. Compliance		
Pollutant Name		Compliance	Time	Base	Test		
or Parameter	Fuel(s)	Method	Frequency	Date *	Duration	CMS**	See permit condition(s)
NO _x	All	EPA Method 7, 7A, 7C, 7D or 7E	Annual		1-hour	Yes	III.A.13. & 14.
VOC	All	EPA Method 18	Renewal		1-hour		III.A.13. & 15.
CO	All	EPA Method 10	Annual		1-hour		III.A.13. & 14.
PM/PM ₁₀	Oil	EPA Methods 5, 5B or 17	Renewal		1-hour		III.A.13. & 15.
SO ₂	All	EPA Methods 6, 6A, 6B or 6C	Annual		1-hour	Yes	III.A.13. & 14.
VE	All	EPA Method 9	Annual		30-minutes		III.A.13. & 14.
Sulfuric Acid Mist	Syngas	EPA Method 8, 8A, 8B, or 320	Semi-annual for 5 years		1-hour		III.A.19.
Pb	All		Initial Only				III.A.18.
Inorganic Arsenic	Syngas		Initial Only				III.A.18.
Beryllium	Syngas		Initial Only				III.A.18.
Mercury	Syngas		Initial Only				III.A.18.
Notes:							
* The frequency base date is established for planning purposes only; see Rule 62-297.310, F.A.C.							
**CMS [=] continuous monitoring system							

Table 2, Summary of Compliance Requirements							
Tampa Electric Company						Final Permit No. 1050233-026-AV	
Polk Power Station						Facility ID No. 1050233	
This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.							
E.U. ID No.		Brief Description					
[-003]		120 Million Btu per Hour Auxiliary Boiler					
Pollutant Name or Parameter		Compliance Method	Testing Time	Frequency	Min. Compliance		
Fuel(s)			Frequency	Base Date *	Test Duration	CMS**	See permit condition(s)
VE	Oil	EPA Method 9	Annual		30-minutes	Yes	III.B.20.
PM	Oil	EPA Method 5, 5B or 17	Renewal		120-minutes		III.B.20.
SO ₂	Oil	ASTM D2880-71, or latest edition	Each delivery				III.B.24.
NO _x	Oil	EPA Method 7, 7A, 7C, 7D,or 7E	Renewal		1-hour	Yes	III.B.20.
Notes:							
* The frequency base date is established for planning purposes only; see Rule 62-297.310, F.A.C.							
**CMS [=] continuous monitoring system							

Table 2, Summary of Compliance Requirements							
Tampa Electric Company						Final Permit No. 1050233-026-AV	
Polk Power Station						Facility ID No. 1050233	
This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.							
E.U. ID No.		Brief Description					
[-004]		Sulfuric Acid Plant					
Pollutant Name or Parameter		Fuel(s)	Compliance Method	Testing Time Frequency	Frequency Base Date *	Min. Compliance Test Duration	CMS** See permit condition(s)
VE	Propane	DEP Method 9	Annual		30-minutes		III.C.13.
SO ₂	Propane	EPA Method 6C	Annual		1-hour		III.C.13.
SAM	Propane	EPA Method 8, 8A, 8B, or 320	Renewal		1-hour		III.C.13.
Notes:							
* The frequency base date is established for planning purposes only; see Rule 62-297.310, F.A.C.							
**CMS [=] continuous monitoring system							

Table 2, Summary of Compliance Requirements							
Tampa Electric Company					Final Permit No. 1050233-026-AV		
Polk Power Station					Facility ID No. 1050233		
This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.							
E.U. ID No.		Brief Description					
[-005]		Solid Fuel Handling System					
Pollutant Name or Parameter			Testing Time Frequency	Frequency Base Date *	Min. Compliance Test Duration		
		Fuel(s)	Compliance Method			CMS**	See permit condition(s)
VE			EPA Method 9	Annual	30-minutes		III.D.6.
Notes:							
* The frequency base date is established for planning purposes only; see Rule 62-297.310, F.A.C.							
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Table 2, Summary of Compliance Requirements							
Tampa Electric Company						Final Permit No. 1050233-026-AV	
Polk Power Station						Facility ID No. 1050233	
This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.							
E.U. ID No.	Brief Description						
[-006]	Solid Fuel Gasification System						
			Testing	Frequency	Min. Compliance		
Pollutant Name or Parameter	Fuel(s)	Compliance Method	Time Frequency	Base Date *	Test Duration	CMS**	See permit condition(s)
Coal input		Recordkeeping	Daily				III.E.8., 9. & 10.
VE (flare)		EPA Method 9	if > 400 hours/year		30 minutes		III.E.11. & 12.
SO ₂							III.E.9.
Notes:							
* The frequency base date is established for planning purposes only; see Rule 62-297.310, F.A.C.							
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Table 2, Summary of Compliance Requirements							
Tampa Electric Company				Final Permit No. 1050233-026-AV			
Polk Power Station				Facility ID No. 1050233			
This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.							
E.U. ID No.		Brief Description					
[-009]		165 MW Simple Cycle Combustion Turbine No. 2					
[-010]		165 MW Simple Cycle Combustion Turbine No. 3					
		Testing		Frequency	Min. Compliance		
Pollutant Name		Compliance	Time	Base	Test		
or Parameter	Fuel(s)	Method	Frequency	Date *	Duration	CMS**	See permit condition(s)
NO _x	All	EPA Method 20	Annual		1-hour	Yes	III.F.22. & 23.
SO ₂ % Sulfur	All	Fuel Sampling & Analysis - ASTM Methods	Daily / Transfer				III.F.22., 21. & 29.
SO ₂	All	EPA Method 20	Annual		1-hour		III.F.22.
VE	All	EPA Method 9	Annual		30-minutes		III.F.22. & 23.
VOC	All	EPA Method 18, 25 and/or 25A	Initial only		1-hour		III.F.22. & 30.
CO	All	EPA Method 10	Annual		1-hour		III.F.22. & 23.
Notes:							
* The frequency base date is established for planning purposes only; see Rule 62-297.310, F.A.C.							
**CMS [=] continuous monitoring system							

Table 2, Summary of Compliance Requirements								
Tampa Electric Company						Final Permit No. 1050233-026-AV		
Polk Power Station						Facility ID No. 1050233		
This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.								
E.U. ID No.		Brief Description						
[-011]		165 MW Simple Cycle Combustion Turbine No. 4						
[-012]		165 MW Simple Cycle Combustion Turbine No. 5						
				Testing	Frequency	Min. Compliance		
Pollutant Name		Compliance	Time	Base	Test			
or Parameter	Fuel(s)	Method	Frequency	Date *	Duration	CMS**	See permit condition(s)	
CO	Natural Gas	CEMS	Renewal			Yes	III.G.18., 19. & 21.	
NO _x	Natural Gas	CEMS	Annual			Yes	III.G.18., 19. & 20.	
PM/PM ₁₀	Natural Gas	VE serves as surrogate					III.G.19.	
VE	Natural Gas	Method 9	Annual		1 hour		III.G.19. & 20.	
SO ₂	Natural Gas	Fuel Sampling & Analysis - ASTM Methods					III.G.19.	
Notes:								
* The frequency base date is established for planning purposes only; see Rule 62-297.310, F.A.C.								
**CMS [=] continuous monitoring system								

TABLE H
PERMIT HISTORY/ID NUMBER CHANGES

This permit history summarizes primarily projects issued after project number -016-AV. For previously issued projects, also refer to the Appendix H-1's referenced in Permit Nos. 1050233-001-AV and 1050233-016-AV posted on the web site.

Relevant Permits Issued & Projects:

E.U. ID No.	Description	Permit No.	Effective Date	Expiration Date	Project Type
All	Facility	1050233-001-AV	01/01/2000	12/31/2004	Initial
All	Facility	1050233-016-AV	01/01/2005	12/31/2009	Renewal (1 st)
All	Facility	1050233-026-AV	01/01/2010	12/31/2014	Renewal (2 nd)
-001	260 MW Coal Gasification Combined Cycle CT No. 1	PSD-FL-194	02/24/1994	06/01/1996	Construction
-009 & -010	Simple Cycle Turbine Nos. 2 & 3	PSD-FL-263	10/08/1999	12/31/2002	Construction
-001	260 MW Coal Gasification Combined Cycle CT No. 1	PA 92-32	11/29/1993	NA	Construction
All	Facility	1050233-002-AC	12/14/1999	12/14/2004	Construction (mod.)
-001	PPS Unit No. 1 - 60% Petcoke Modification	1050233-004-AC/ PSD-FL-194E	11/17/2000	03/31/2001	Construction (mod.)
All	Facility	1050233-005-AC	06/20/2001	12/31/2001	Construction (mod.)
-001	260 MW Coal Gasification Combined Cycle CT No. 1	1050233-007-AC/ PSD-FL-194F	02/05/2002	NA	Construction (new.)
-001	260 MW Coal Gasification Combined Cycle CT No. 1	1050233-010-AC	10/21/2001	10/21/2006	Construction (mod.)
-001	260 MW Coal Gasification Combined Cycle CT No. 1: Biomass Test Burn - Bahia Grass	1050233-013-AC	11/25/2003	04/30/2004	One Time Test Burn
-004	Sulfuric Acid Plant: Cold Gas Cleanup System, MDEA Chiller	1050233-017-AC	11/09/2004	12/31/2005	Construction
-011 & -012	PPS Unit Nos. 4 & 5	1050233-018-AC/ PSD-FL-363	04/28/2006	10/01/2008	Construction
-001, -004, - 005 & -006	PPS Unit No. 1 Petcoke Test Burn	1050233-019-AC	11/07/2006	11/09/2007	Construction (mod.)
	630 MW IGCC Unit No. 6	1050233-020-AC	Withdrawn on 10/08/2007	NA	Construction

TABLE H**PERMIT HISTORY/ID NUMBER CHANGES**

-001, -004, -005 & -006	PPS Unit No. 1 - 85% Petcoke Modification	1050233-021-AC/ PSD-FL-194H	06/26/2008	06/01/2009	Construction (mod.)
-011 & -012	PPS Unit Nos. 4 & 5 inclusion	1050233-022-AV ¹	08/27/2008	NA	Revision
	CAIR	1050233-023-AC	02/13/2009	NA	Revision (CAIR)
	CAMR	1050233-024-AV	Withdrawn	NA	Revision (CAMR)
-001, -004, -005 & -006	Extension of 1050233-021-AC/ PSD194H	1050233-025-AC	04/16/2009	06/30/2010	Construction (mod.)

¹ the most recent Title V air operation permit posted on the web site.

"NA" represents not applicable.