



Florida Department of Environmental Protection

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July 31, 2012

Doug Yowell
Senior Environmental Specialist
Progress Energy Florida
Post Office Box 14042
St. Petersburg, FL 33733-4042

RE: Hines Energy Complex
Modification to Conditions of Certification
DEP Case Number PA 92-33I
OGC Case Number 11-1307

FINAL ORDER MODIFYING CONDITIONS OF CERTIFICATION

Dear Mr. Yowell:

The Florida Siting Board issued a Site Certification to Progress Energy Florida (PEF) for the construction and operation of Hines Energy Complex Units 1-4 on January 27, 1994, June 4, 2001, September 11, 2003, and June 8, 2005, respectively. The Department of Environmental Protection (Department) has modified the Conditions of Certification (Conditions) for Hines by Final Order on eight other occasions.

The Department has reviewed PEF's petition dated August 31, 2011, for a modification to the Hines Energy Complex Site Certification pursuant to Section 403.516(1)(c), Florida Statutes (F.S.). The petition included the following items.

- Two alternate water supply projects (Mosaic-Green Bay and Estech water diversion projects)
- Request to include language to allow for addressing future water supply projects as post-certification submittals
- SA-8 cooling pond side-stream wetland treatment project
- Alternative reverse osmosis raw water supply proposal
- Elimination of evaporation monitoring requirement
- Elimination of certain IWW analytical parameters in the existing groundwater monitoring plan
- Request for approval to bury fish on-site in the event of a fish kill within the cooling pond
- Request to update surface water management requirements to reflect Department jurisdiction

July 31, 2012

By this Final Order, the Department is modifying the Conditions for Hines to incorporate changes associated with PEF's petition, with the exception of the request to include language to allow for addressing future water supply projects as post-certification submittals. Herein the Department has also initiated modifications pursuant to 403.516(1)(c), F.S., to incorporate a uniform set of general conditions consistent with recent site certifications, as well as update antiquated rule, agency and condition references.

On June 15, 2012, all parties to the certification proceeding were provided notice by certified mail of the Department's intent to modify the Conditions for Hines, along with a draft copy of the proposed Order Modifying the Conditions of Certification. On June 29, 2012, notice of the Department's intent to modify the Conditions for Hines was also published in the Florida Administrative Weekly (FAW).

Pursuant to Section 403.516, F.S., and Rule 62-17.211, Florida Administrative Code ("F.A.C."), all parties to the certification proceeding have 45 days from the issuance of notice by mail to such party's last address of record in which to file a written objection to the modification. Pursuant to Section 403.516, F.S., and Rule 62-17.211, F.A.C., any person who is not already a party to the certification proceeding and whose substantial interests will be affected by the requested modification has 30 days from the date of publication of the public notice in the FAW to object in writing. Failure to act within the time frame constitutes a waiver of the right to become a party. The Department will issue an order modifying the Conditions for this facility if no written objections are received by the Department.

These timeframes have expired and no objections to the proposed modification have been received by the Department. Therefore, the Conditions for Hines are hereby modified as follows (words ~~stricken~~ are deletions; words underlined are additions):

Modifications associated with PEF's petition

The existing DEP Industrial Wastewater and Groundwater Conditions (moved from Conditions XVII and XVIII to Section B, Conditions I.F and I.G of the updated Conditions, respectively) were modified to delete requirements no longer applicable and add updated groundwater requirements, including the addition of a separate groundwater monitoring plan as Attachment H to the Conditions. The existing DEP Solid Waste Condition (moved from Condition XXI to Section B, Condition I.I of the updated Conditions) was modified to include requirements for the fish burial request. The existing DEP Mine Reclamation Condition (moved from Condition XXV to Section B, Condition I.L of the updated Conditions) was modified to reflect changes to the designated uses of certain reclaimed mine areas. The existing Southwest Florida Water Management District (SWFWMD) Condition (moved from Condition XXVI to Section B, Condition II of the updated Conditions) was modified to reflect changes to ground water withdrawal limits and evaporation monitoring requirements. Also, certain requirements related to surface water management under the existing SWFWMD Condition were replaced by incorporated General Conditions or moved to DEP Specific Conditions in the updated Conditions. These changes are clarified in the attachments discussed under the following "Modifications associated with the incorporation of general conditions and other updates" section of this Final Order.

SECTION B. SPECIFIC CONDITIONS

I. DEPARTMENT OF ENVIRONMENTAL PROTECTION

A-E. *No changes associated with PEF's petition*

F. *Industrial Wastewater*

1. ~~Leachate Standards~~

~~PEF shall assure that the solid waste generated from the lime/soda ash softening system will meet the leachate standards established by the Toxicity Characteristic Leaching Procedure prior to disposal.~~

2. ~~Brine Solids~~

~~The solids generated at the brine concentrator, lime/soda ash pretreatment, and neutralized demineralized regeneration system must be concentrated to contain a volume of solids greater than 50 percent prior to disposal offsite.~~

3. ~~Stormwater Control~~

~~PEF is responsible for the stormwater control in the solid waste retention areas. Stormwater or other surface water which comes into contact with the disposed solid waste or mixes with leachate shall be considered leachate and is subject to the requirements of Condition XXI.B.10.~~

4. ~~IWT Design Review~~

~~No earlier than 24 months nor later than six months prior to construction of any unit or device for the treatment of industrial wastewater generated by this facility, appropriate design information plans and specifications for such unit or device shall be submitted to the Department for approval; provided, however, that this information for dam repair that is scheduled within nine months after site certification may be submitted no later than two months prior to construction. All information shall be submitted as specified in DEP Form 62-1.204(2). No industrial wastewater treatment unit shall be constructed or operated without prior Department approval.~~

52. Cooling Pond Design

PEF shall ensure that the design and construction of the pond's dams be in accordance with best engineering practices and at least of similar stability as those required under the provisions of Chapter 62-672, F.A.C.

63. Vegetative Cover

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

74. Brine Pond

To ensure that the brine pond will not be a source of pollution to ground and surface water, the following site-specific standards shall apply:

a. General

The brine pond shall be designed, constructed, operated, maintained, closed and monitored in accordance with the SCA and these Conditions of Certification.

b. Site-Specific Standards

(1) There shall be no discharge of wastewater from the brine pond to surface waters of the state.

(2) Groundwater monitoring for the brine pond will be performed in accordance with ~~Condition XVII.G.2.e. and Section XVIII~~ the applicable Conditions included in Attachment H (Groundwater Construction, Operation, and Monitoring Requirements) of this Certification. If the groundwater monitoring data collected in accordance with these Conditions indicates an exceedance of applicable groundwater standards at the boundary of the zone of discharge due to operation of the brine pond, PEF will consult with FDEP to formulate a mutually agreed upon corrective action plan. If the corrective action plan requires dewatering and construction work in the SA-9 brine pond, PEF will be allowed to transfer the brine from SA-9 to a suitable impoundment, and discharge brine to the temporary storage area for a period sufficient to perform the construction in SA-9. The selection of a suitable temporary storage facility and the establishment of the implementation schedule for any required corrective action will be by mutual agreement of FDEP and PEF.

(3) A seepage collection ditch will be constructed along the west dam of SA-9 to prevent any discharge of seepage to off-site surface waters via the FDOT roadside swale along S.R. 555. The seepage ditch will extend from the northwest corner of SA-9 to the southwest corner, where it will connect to the plant island drainage swale which was constructed during the earthworks phase of the facility construction. The seepage collection ditch will be graded to direct any surface seepage, either natural or as a result of operation of SA-9, to the plant drainage system.

~~(4) PEF will submit detailed construction plans for the construction of all Reverse Osmosis reject (brine) disposal and seepage collection facilities, in accordance with the requirements General Condition A.XXI. [Procedures for Post-Certification Submittals] of this Certification, for review and approval by the Department.~~

~~(5) A program to test and evaluate the impact of the brine on the permeability of the clay liner shall be implemented. The testing shall include pre-operation and operation phase programs. The pre-operation phase program shall consist of such tests as material classification, clay mineralogy, cation exchange capacity, and selected laboratory or field permeability test. Tests will be performed to assess impacts of the movement of brine through the clay on permeability. PEF shall submit detailed testing programs and protocols to DEP for review at least three months prior to the commencement of the testing. PEF shall submit the pre-operation test report to DEP, including all test data, analysis, and conclusions at least six months prior to the start of brine pond operations.~~

~~The operation phase program shall consist of performing laboratory and/or field tests of the clays in the brine pond for confirmation testing and comparison to the pre-operation phase program. Tests shall be taken annually for the first five years after initiation of brine production. Testing beyond this time frame will continue only if~~

~~unfavorable impact is observed. Continued testing shall be at a frequency proposed by PEF and approved by DEP.~~

(64) No RCRA hazardous waste as defined by 40 C.F.R. B 261.3 shall be deposited in the brine pond.

(75) Ground water monitoring for the brine pond will be performed in accordance with ~~the Ground Water Monitoring Plan set forth in Conditions of Certification XVIII.~~ Attachment H (Groundwater Construction, Operation, and Monitoring Requirements) of these Conditions.

(86) PEF shall prepare comprehensive operation plan that provides written instructions for the daily operation and weekly inspection of the brine evaporation pond. The plan shall be submitted to DEP for review and approval. Upon approval, the plan shall be kept at the facility and shall be accessible to the operators. The plan shall be revised and submitted to DEP for review and approval if operational procedures change.

85. Inspection of Dams

a. Inspection of the dams shall be conducted annually by an 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 PEF, to the Department for review (Section 62-672.500(5), F.A.C.)

b. ~~One Hundred Twenty (120) days prior to utilization of the cooling ponds, PEF shall submit~~ PEF shall continue to maintain a detailed dam inspection program plan previously approved by ~~to the Department for approval.~~ Upon approval, the inspection plan will be implemented.

c. PEF shall ensure that the cooling pond will be designed, constructed and operated to maintain a surge capacity equal to the runoff from 100-year, 24-hour rainfall event, in addition to all process water diverted from the power plant operation.

96. No Change

107. Non-Hazardous Low Volume Liquid Wastes

~~Demineralizer regeneration waste will be directed to either the cooling pond or to the brine pond for the initial natural gas-fired units and to the coal gasification plants in later phases.~~ Non-Hazardous low volume liquid wastestreams, some of which may have high solids content ~~(water pre-treatment filtrate, lab drains, boiler blowdown and floor drains after oil separation)~~ will be directed either to the cooling pond or to the brine pond. Low volume wastestreams, pursuant to the federal definition found in 40 CFR Part 423.11, include, but are not limited to, water pretreatment filter backwash, reverse osmosis (R.O.) reject, water treatment system cleaning wastes, boiler blowdown, laboratory and sampling streams, floor drains, treated water (service water), incidental leaks and spills from the power blocks and associated ancillary structures, discharges from power block sumps, and discharge from oil/water separators.

11. ~~Characterization of Cooling Pond Water~~

~~This subject is covered in the groundwater monitoring requirements.~~

128. No Change

9. General Conditions

The Licensee shall comply with all other applicable, non-procedural requirements found in Chapter 62-620.610 (1-23), F.A.C., as these relate to operation of the Hines Energy Complex industrial wastewater collection and treatment facilities.

G. Groundwater

1. ~~This Ground Water Monitoring Plan is designed for the monitoring of the following sites (as defined in Rule, 62-520.200(15), F.A.C.): the Solid Waste Disposal Area (SA-8), the Cooling Pond (N-15, N-11B and N-16), and the Brine Pond (SA-9) where the toe of the outward facing portion of the site berms define the site boundary. The boundaries of the disposal sites shall be consolidated for the purpose of defining the Zone of Discharge. Monitor wells IMW-7 and IMW-8 shall be compliance wells for the Solid Waste Disposal Area and intermediate wells for the remaining disposal sites. The Zone of Discharge (as defined in Rule 62-520.200(19), F.A.C.), for the consolidated site boundary, shall be horizontally located 100 feet from the consolidated boundary, pursuant to Rule 62-522.410(2)(a), F.A.C., and vertically extend to the top of the Tampa Member of the Hawthorn Group as defined in FGS Bulletin No. 59.~~

2. ~~In accordance with Rule 62-522.600(3), F.A.C., the Ground Water Monitoring System shall be constructed by PEF at least 30 days prior to the completion of construction of the disposal systems referenced in XVIII.A.1., above.~~

3. ~~The Ground Water Monitoring System shall be designed and constructed by PEF in accordance with the plans and supporting documentation submitted and on file in the Southwest District office. Each monitor well shall be constructed within an individual bore hole.~~

4. ~~The Ground Water Monitoring System shall consist of 9 wells and shall be tentatively located as listed below. All wells are to be clearly labeled and easily visible at all times.~~

WELL NUMBER	AQUIFER	LOCATION
IMW-1*	Intermediate	Per FPC Figure 1 Rev. 10/93 (attached)
IMW-2+	Intermediate	Per FPC Figure 1 Rev. 10/93 (attached)
IMW-3+	Intermediate	Per FPC Figure 1 Rev. 10/93 (attached)
IMW-4+	Intermediate	Per FPC Figure 1 Rev. 10/93 (attached)
IMW-5+	Intermediate	Per FPC Figure 1 Rev. 10/93 (attached)
IMW-6+	Intermediate	Per FPC Figure 1 Rev. 10/93 (attached)
IMW-7**	Intermediate	Per FPC Figure 1 Rev. 10/93 (attached)
IMW-8**	Intermediate	Per FPC Figure 1 Rev. 10/93 (attached)

FMW-1+	Upper Floridan	Per FPC Figure 1 Rev. 10/93 (attached)
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———* background well

———** compliance well for the Solid Waste Disposal Area (SA-8)

———+ compliance well

5. Within 90 days of completion of construction of the ground-water monitor wells a surveyed drawing shall be submitted showing the location of all monitoring wells (active and abandoned) which will be horizontally located by metes and bounds or equivalent surveying techniques. The surveyed drawing shall include the monitor well identification number as well as location and elevation of all permanent benchmark(s) and/or corner monument marker(s) at the site. The survey shall be conducted by a Florida Registered Surveyor. Two copies of the certified drawing shall be sent to the Technical Support Section, Southwest District Office, Department of Environmental Protection, 3804 Coconut Palm Drive, Tampa, Florida 33619-8318.

6. Within 90 days of completion of construction of each monitor well, PEF, or the authorized representative, shall submit the following information for each monitor well:

a. A complete DEP Monitor Well Completion Report;

b. A copy of the SWFWMD Well Completion Report, SWFWMD Form 25-18-3/90.

The information shall be sent to the DEP's Technical Support Section, Southwest District Office.

7. Within 60 days of completion of construction of the Ground Water Monitoring System and every 5 years thereafter, PEF shall sample IMW-1, IMW-5 and FMW-1 ground-water monitor wells for the Primary and Secondary Drinking Water parameters included in Chapter 62-550, F.A.C., Public Drinking Water Systems, Fecal Coliform and EPA Methods 601 and 602 (for parameters not otherwise included in the Primary and Secondary Drinking Water parameters). The results from the initial sampling shall be used to determine the ambient concentrations of the parameters tested and shall be sent to the DEP's Technical Support Section, Southwest District Office.

8. Within six months of startup for new facilities PEF shall provide separate waste stream characterizations for the cooling pond and for the brine pond. The cooling pond samples will be collected in the plant discharge canal and will be considered as representative of the combined waste streams discharged to this impoundment. The brine pond samples will be collected in SA-9 and shall be considered as representative of the reverse osmosis, demineralizer, and any other waste (if applicable) discharges to this impoundment. In addition, a copy of the water quality results of the City of Bartow reclaimed water as received by PEF shall be provided. Thereafter, a waste streams characterization shall be performed from a surface water sample collected from the cooling pond discharge canal within six months of the completion of coal gasification units but in no event with less frequency than every 5 years. The samples for characterization shall be analyzed for the Primary and Secondary Drinking Water Standards (Chapter 62-550, F.A.C.), Fecal Coliform and the EPA Priority Pollutants. The components identified in the waste stream characterizations, and the leachate characterization pursuant to

July 31, 2012

Section XXI as well as ground water indicator parameters may be used to modify the Ground Water Monitoring Plan. The results shall be sent to the Technical Support Section, Southwest District office.

9. —Based on four consecutive sampling quarters having been completed, the wells shall be sampled QUARTERLY for the parameters listed below. Additional samples, wells and parameters may be required based upon subsequent analyses.

PRIMARY STANDARDS	
PARAMETERS	UNITS
Sodium	Mg/L
Arsenic	Mg/L
Fecal Coliform	cts/100 ml
SECONDARY STANDARDS	
Total Dissolved Solids (TDS)	Mg/L
PH*	std. units
Color*	Color units
Aluminum	Mg/L
Iron	Mg/L
Manganese	Mg/L
Sulfate	Mg/L
OTHERS	
Temperature*	°C
Total Organic Carbon (TOC)	Mg/L
Specific Conductance*	µmhos/cm
Water Level (NGVD)*	Feet
Dissolved Oxygen (minimum)	Mg/L
Ammonia (as N)	Mg/L
Ammonia (as NH ₄)	Mg/L
ACID EXTRACTABLES	
Phenols	Mg/L
BASE EXTRACTABLES	
Butyl benzyl phthalate	Mg/L
Di-n-butylphthalate	mg/L
Diethylphthalate	mg/L
Dimethylphthalate	mg/L
Dioctylphthalate	mg/L

— * field measurement

The results shall be sent to the DEP's Technical Support Section, Southwest District office.

10. —Following the initial analysis of the ground water monitor wells, all monitor wells shall be sampled, analyzed and results reported in accordance with the following schedule:

SAMPLE PERIOD	REPORT DUE DATE
1st Quarter (January-March)	April 28
2nd Quarter (April-June)	July 28
3rd Quarter (July-September)	October 28
4th Quarter (October-December)	January 28

PEF shall submit to the Department the results of the water quality analyses no later than the 28th day of the month immediately following the end of the sampling period. The results shall be sent to the Technical Support Section, Southwest District Office.

11. ~~Ground water sampling shall be reported on the Monitoring Report Forms, hereby incorporated as Attachment F [DEP Form 62-620.910(10)]. In order to facilitate entry of this data into the state computer system, these forms or an exact replica must be used and must not be altered as to content. The original copies should be retained so that necessary information is available to properly complete future reports. The report forms received from the laboratory must be submitted within 30 days of receipt of written request from the Department. PEF may submit the ground water sampling report in an electronic format (e.g., by telephone modem, removable disk, removable tape or removable drive) upon written authorization from the Department.~~

12. ~~Should the PEF wish to resample water quality analyses, taken pursuant to the Ground Water Monitoring Plan, the PEF will do so within 15 days of the receipt of the first sampled water quality analyses. The Department will then consider the resampled analyses to be acceptable; in any other event the original samples will be considered representative of formation waters by the Department and by PEF.~~

13. ~~The field testing, sample collection, preservation and laboratory testing, including quality control procedures, shall be in accordance with methods approved by the Department in accordance with F.A.C. Chapter 62-160.~~

14. ~~If any monitor well becomes damaged or inoperable, PEF shall notify the Department immediately and a detailed written report shall follow within 7 days. The written report shall detail what problem has occurred and remedial measures that have been taken to prevent the recurrence. All monitoring well design and replacement shall be approved by the Department prior to installation of the replacement well.~~

15. ~~Within 180 days of this permit, all piezometers and wells not a part of the approved Facility Ground Water Monitoring Plan, Department approved piezometers, or monitoring wells required by SWFWMD are to be plugged and abandoned in accordance with Rule 62-532.500(4), F.A.C. and the SWFWMD. PEF shall submit a written report to the Department providing verification of the plugging program. A written request for exemption to the plugging of a well must be submitted to the Department's Technical Support Section for prior approval.~~

16. ~~PEF shall ensure that the water quality standards for Class G-II ground waters will not be exceeded at the boundary of the zone of discharge in accordance with Rules 62-520.400 and 62-520.420, F.A.C.~~

~~17. PEF shall ensure that the minimum criteria for ground water specified in Rule 62-520.400, F.A.C., shall not be violated within the permitted zone of discharge.~~

1. The Licensee shall comply with the requirements of the approved PEF-Hines Energy Complex Groundwater Construction, Operation and Maintenance Requirements (GWCOMR) – Attachment H to these Conditions. A violation of the requirements of the GWCOMR shall be a violation of these Conditions.

PEF 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. Any violation of such provisions, shall be a violation of these Conditions.

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

- (1) monitoring well construction requirements;
- (2) updated aerial showing all monitoring wells (existing and new);
- (3) a description of the complete IWW system including IWW treatment systems, and monitoring wells;
- (4) parameters to be sampled at each monitoring well;
- (5) monitoring frequencies; and
- (6) 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 may 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.

- (1) New major sources or deletion of existing major sources of wastewater;
- (2) 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;
- (3) 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; or
- (4) 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 SCO. Review shall be in accordance with General Condition A.XXI. 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) which may be applicable to potential permitted surface water discharges at the Hines Energy Complex. Once a TMDL has been established and adopted by rule, the Department shall revise, if applicable, 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. Within 180 days of the effective date of Modification I, the Licensee shall submit to the Department for review and approval a revised groundwater monitoring plan with proposed well locations within the new disposal areas [Triangle Lakes, area P-3 and Lake Phosphoria area]. Water table contouring of the area surrounding the receiving bodies is required in order to determine the appropriate placement of the proposed compliance well(s). This Post-certification submittal is subject to the requirements stipulated in General Condition A.XXI. Procedures for Post-Certification Submittals.

3. The Zone of Discharge for the consolidated site boundary, 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)]

4. The ground water minimum criteria specified in Rule 62-520.400 F.A.C., shall be met within the zone of discharge. [62-520.400 and 62-520.420(4)]

5. The Licensee shall ensure that the water quality standards for Class G-II ground waters will not be exceeded at the boundary of the zone of discharge in accordance with Rules 62-520.400 and 62-520.420, F.A.C.

6. Monitoring requirements under these Conditions are effective on the first day of the second month following the issuance of Modification I. 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.

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

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

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)]

If the facility elects to sign up for eDMR, please visit the following website for additional information and application forms:

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

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.]

H. No changes associated with PEF's petition

I. Solid Waste Storage and Disposal

1. General

The solid waste disposal areas (SWDAs) shall be designed, constructed, operated maintained, closed and monitored in accordance with acceptable waste disposal practices providing environmental protection equivalent to those described in F.A.C. Chapter 62-

701 and these Conditions of Certification. The prohibitions of F.A.C. Chapter 62-701 shall not be violated.

a. All engineering plans, reports, and related information shall be approved by the engineer of record with professional certification and shall be approved by the Department's Solid Waste Section at Southwest District (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.

b. The facility shall have a comprehensive operation plan that provides written, detailed instructions for the daily operation of the solid waste disposal areas. 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 SA-8 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.

c. 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.

d. PEF 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 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.

e. A trained supervisor 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 solid waste disposal area or failure of any portion of the related systems, the Department's SWSSWD shall receive notification in accordance with General Condition A.VIII. Notification.

f. PEF shall sample leachate from each SWDA for Primary and Secondary Drinking Water Standards as listed in Chapter 62-550, F.A.C., and for the parameters listed in 40 CFR 261.24 on an annual basis. Parameters detected in the leachate at levels of concern may be included in future groundwater sampling analyses. The results of the leachate analyses shall be submitted to the SWSSWD of the DEP within 30 days of receipt of the analytical results.

g. The groundwater monitoring for the solid waste disposal areas is incorporated into the Facility Groundwater Monitoring Plan as described in DEP Specific Condition B.I.G. [Groundwater Monitoring] of these Conditions. As new solid waste disposal areas are put into use, a modification of the Facility Groundwater Monitoring Plan shall be submitted by PEF to the SWSSWD of the DEP to monitor the new disposal areas.

h. If groundwater concentrations significantly above both the background concentration and the applicable groundwater standard due to Solid Waste Disposal Area leachate are detected and verified by appropriate resampling, PEF shall submit a contamination assessment plan to the Department's SWSSWD within 150 days of knowledge of exceedance. The contamination plan shall provide a detailed plan for evaluating the vertical and horizontal extent of affected soils and groundwater.

i. The on-site burial of fish resulting from unforeseen fish kills within the site cooling pond shall be allowed in the upland area of SA-8 following review and approval of a specific construction, operation and monitoring plan submitted to the Department in advance of construction and operation of such a fish burial facility. No other solid wastes are allowed to be buried with dead fish.

2-3. No Change

4. Additional Information Requirements

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 co construction. A construction certification report signed and sealed by a professional engineer, ~~and record drawings showing~~ identifying all modifications to construction plans, ~~and a narrative report describing all changes to the approved plans~~ shall be submitted for approval to the SWSSWD of the DEP prior to operation of each SWDA.

5. No Change

J-K. No changes associated with PEF's petition

L. Mine Reclamation Conditions

1-3. No Change

4. Complete Reclamation Work Responsibility

a. Until PEF purchases the mining parcels listed as follows, each respective mining company shall be solely responsible for completing the reclamation work in accordance with the approved reclamation program (parcel) plan currently on file with the Department.

ESTECH SILVER CITY MINE (ESTECH, INC.)	
SA-8	EST-SC(2)
SA-9	EST-SC(6)
SA-10	EST-SC-SP(5)
SA-11	EST-SC-SP(4)
SA-12	EST-SC-MC(1)
SA-13	EST-SC-SP(7) and (8)

IMC NORALYN/PHOSPHORIA MINE (IMC CO.)	
N-16	IMC-NP-SP(9)
P-2	IMC-P-2

P-3	IMC-NP-SMC(2)
Phosphoria	IMC-NP-SMC(5)

USAC ROCKLAND MINE	
N-9	USS R-SP(1A)

b. After purchase by PEF, the reclamation of programs EST-SC-SP(5), IMC-NP-SMC(2), IM-NP-SMC(5), ~~USS R-SP(1A)~~ and the southern-most 225 acres of program EST-SC-MC(1) shall be conducted in accordance with the reclamation requirements, criteria, and standards as set forth in Chapter 16C-16, F.A.C.

c. After approval of the PEF Hines Energy Complex SCA, subsequent purchase by PEF, and transfer of ownership and responsibilities pursuant to these Conditions, the mandatory reclamation requirements for Estech programs EST-SC(2), EST-SC(6), EST-SC-SP(4), the northern 376 acres of EST-SC-MC(1), EST-SC-SP(7), EST-SC-SP(8) and IMC program IMC-NP-SP(9) shall no longer apply. It shall be the responsibility of PEF to develop the program areas identified in this paragraph according to the approved conceptual plan, and variances to Chapter 16C-16, F.A.C., which are incorporated in the site certification approval. These areas are intended to be developed for the following use upon the following schedule:

PARCEL	PARCEL	USE {PHASE}
SA-8	EST-SC(2)	Water Storage (I-IV), <u>Side-stream Cooling Pond Wetland Treatment System (IV - VI) or Solid Waste Disposal (HV through VI)</u> , Water Crop (VII)
SA-9	EST-SC(6)	Water Storage (I), Brine Pond (III-VII)
SA-II	EST-SC-SP(4)	Generating Units & Fill Storage (III and & IV), Generating Units and Gasifiers (V-VII)
SA-12 (North)	EST-SC-MC(1)	Water Storage (I), Fill Storage, Storm Water Retention and Water Crop (III-IV), Coal Pile and Coal Handling/Rail Loop (V-VII)
SA-13	EST-SC-SP(7)	Roads/Infrastructure (III-VII) and (8)
N-16	IMC-NP-SP(9)	West - Cooling Pond (III-VII), East - Effluent Storage, Fill Storage and Water Crop (III), and Cooling Pond (IV-VII)
Phases	I	Initial Earthwork Construction
	II	Initial Vertical Plant Construction
	III	235 to 1,500 MW
	IV	1,500 to 2,000 MW
	V	2,000 M to 2,250 MW and add <u>Optional</u> Coal
	VI	3,000 MW
	VII	P-2 as Solid Waste Disposal Area

5. No Change

6. Reclamation Compensation and Habitat Development

To compensate for the potential habitat displaced in the mining parcels released from mandatory reclamation, pursuant to Condition L.(4)(c) above, the following conditions shall apply:

a. Off-Site Wildlife Corridor

(1) As part of mitigation, PEF shall contribute to the completion of the Integrated Habitat Network connecting the Peace River floodplain with Hookers Prairie in the following manner: Estech shall sell and convey and PEF shall arrange and fund the acquisition of good, marketable fee simple title to or, with the consent of DEP, the imposition of a permanent conservation easement on Estech mining parcels EGG-SC-A (79 acres more or less), EST-SC-SP(3) (90 acres more or less) And EGG-SC-05 (256 acres more or less) by or for the benefit of an entity other than PEF satisfactory to DEP, to be used as part of the Integrated Habitat Network connecting the Peace River Floodplain to Hooker's Prairie. Closing of this transaction shall occur within one year following PEF's purchase of the Hines Energy Complex or within a later time frame established by DEP. PEF shall bear no expense in connection with or otherwise be responsible for the reclamation or management of these parcels.

(2) Costs to be funded by PEF for the purchase of these parcels shall not exceed \$900.00 per acre plus normal purchaser's closing costs. Costs in excess of \$900.00 per acre shall result in an offsetting reduction of the number of acres to be acquired.

b. Mining Parcel SA-10

(2) Estech Mining Parcel SA-10 [EST-SE-SP(5)] shall be utilized as a water storage area during the initial phase of construction for the first 470 MW of electrical generation at the Hines Energy Complex.

(3) Upon the completion of construction of the initial phase of the Hines Energy Complex, Mining Parcel SA-10 shall be reclaimed as a mixture of upland and wetland habitats, as shown on Attachment D (Vegetation Planting Plan & Exotic Species List) to this Certification. Parcel SA-10 will be contoured to drain to a system sending runoff water ultimately to McCullough Creek.

c. Mining Parcel SA-12

PEF will leave the southern portion (approximately 225 acres) of Estech program EST-SC-MC(1) as already reclaimed except for the addition of a hydraulic connection to the headwaters of McCullough Creek to contribute to the McCullough Creek drainage basin.

d. Exotic and Nuisance Species

Exotic species control requirements outlined in the Conservation Easement Agreement executed in May 2002, Attachment C (Mitigation Plans & Conservation Easements) to these Conditions, shall be followed. ~~listed in Attachment D (Vegetation Planting Plan & Exotic Species List) shall not be considered an acceptable form of vegetative cover within N 9B, N 13, and SA 10. Nuisance species listed in Attachment D (Vegetation Planting Plan & Exotic Species List) shall be controlled, and not permitted to exceed twenty five (25)~~

~~percent of the total upland vegetative cover at any given time within N-9B, N-13, and SA-10. PEF and DEP shall work together to determine appropriate measures to be implemented, such that these species listed in Attachment D (Vegetation Planting Plan & Exotic Species List) will be controlled and/or eradicated.~~

e. IMC Parcels P-2, P-3 and Phosphoria

(1) IMC parcels P-2 (IMC-P-2), P-3 (IMC-MP-SMC-2) and Phosphoria [IMC-MP-SMC(5)] shall be contoured to provide onsite water cropping for the operation the Hines Energy Complex cooling pond and shall otherwise be reclaimed as currently approved.

(2) PEF may develop IMC parcel P-2 as a solid waste disposal area in the event that Estech mining parcel SA-8 is not capable of holding all of the solid waste generated by the coals gasification operation at the Hines Energy Complex.

(3) IMC mining parcels P-3 and Phosphoria shall be available for mitigation for any jurisdictional wetlands impacted in the event IMC mining parcel-P-2 is used for solid waste disposal.

(4) Mitigation plans for P-3 and Phosphoria will be developed in a supplemental certification proceeding if and when P-2 is determined by PEF to be needed as a solid waste disposal area.

(5) P-3, Phosphoria and Triangle Lakes may be utilized to store alternative water supplies consisting of treated industrial wastewater transferred from the nearby Mosaic Fertilizer, LLC –Green Bay and Hookers Prairie facilities and subject to the Departments Industrial Wastewater requirements.

d. IMC Parcel N-11C

After construction of the final phases of the Hines Energy Complex (3,000 MW) parcel N-11C will be revegetated. Final land use and revegetation of N-11C shall be developed during the supplemental certification for the final phase of electric generation (3,000 MW) in consultation with DEP.

e. Wildlife Habitat Management Plan

PEF shall consult with DEP, FWC, and the U.S. Fish and Wildlife Service in establishing the Wildlife Habitat Management Plan required by Polk County.

f. Six Mile Creek Drainage

(1) PEF shall evaluate the feasibility of establishing drainage flow from the Hines Energy Complex to Six Mile Creek if:

i. adjacent offsite parcels are developed to provide a surface hydrological connection to the Six Mile Creek system from the Hines Energy Complex;

ii. water use data indicate an excess amount of water is available for the operation of the Hines Energy Complex; and

iii. no additional permit would be required in connection with such an offsite flow.

(2) PEF shall provide historical and projected water use data to DEP in each supplemental application for certification to assist in the determination of possible drainage flow from the Hines Energy Complex to the Six Mile Creek system.

g. Offsite Estech Drainage

Estech shall take all necessary action, including, but not limited to, modifying conceptual plans and amending reclamation programs, required to ensure that the reclamation of the Estech Silver City Mine Plant site (Estech Plant Site), as depicted on the map in Attachment E (Map of Estech Mine Reclamation Site), will allow drainage from the Estech Parcel SA-10 and Estech Plant Site to flow to the McCullough Creek drainage basin.

~~h. Palmetto Prairie Reclamation~~

~~Two hundred sixty eight acres of the total 294 acres of mine area N-13 shall be reclaimed as a palmetto prairie. The palmetto habitat portion of N-13 will consist of native grasses with clumps of saw palmetto (Serenoa repens) and shrubs established throughout the mine area in a density of 50 plants per acre. The remaining 26 acres of N-13 will be reclaimed as wetland mixed forest and freshwater swamp as shown on Attachment D (Vegetation Planting Plan & Exotic Species List).~~

SECTION B. SPECIFIC CONDITIONS

II. SOUTH FLORIDA WATER MANAGEMENT DISTRICT

A. Water Use Regulation Conditions

Existing Facilities

<u>SWFWMD ID No.</u>	<u>PEF ID No.</u>	<u>Surface Diameter</u>	<u>Casing Depth</u>	<u>Total Depth</u>
<u>1</u>	<u>P-1</u>	<u>20</u>	<u>335</u>	<u>834</u>
<u>2</u>	<u>P-2</u>	<u>20</u>	<u>370</u>	<u>760</u>
<u>6</u>	<u>P-6</u>	<u>4</u>	<u>200</u>	<u>300</u>
<u>153</u>	<u>P-1 FMW</u>	<u>8</u>	<u>330</u>	<u>780</u>
<u>21</u>	<u>AR-21 (TW-1)</u>	<u>20</u>	<u>315</u>	<u>614</u>

1-12. No Change

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

~~Permit Date Section, Resource Regulation~~
Southwest Florida Water Management District
Tampa Service Office, Water Use Permit Bureau
~~2379 Broad Street~~
~~Brooksville, Florida 34604-6899~~
7601 Highway 301 North
Tampa, Florida 33637-6759

Unless submitted online or otherwise indicated in the specific Condition, three copies of each plan or report, with the exception of pumpage, rainfall, ~~evapotranspiration~~, water level or water quality data which require one copy, are required ~~by the permit~~.

14. The water balance for ultimate site capacity (approximately 3,000 MW of generating capacity) at PEF's Hines Energy Complex demonstrates a requirement of 23.6 MGD from offsite and Upper Floridan aquifer sources for process, cooling, domestic and sanitary purposes.

a. PEF shall obtain 6.1 MGD of this amount from a combination of treated wastewater effluent from the City of Bartow's Douglas H. Allen Reclaimed Water Facility and other offsite nonpotable sources of water. To the extent that PEF obtains more than 6.1 MGD through reuse of treated wastewater effluent from offsite sources, the excess amount shall serve to reduce the use of 17.5 MGD of water from the Upper Floridan aquifer which is authorized by Condition A.14b below.

b. PEF is authorized to withdraw from the Upper Floridan aquifer and use for process, cooling, domestic and sanitary purposes, in support of ultimate site capacity at its Hines Energy Complex, an amount of water not to exceed 17.5 MGD, subject to the following conditions:

(1) Except as approved by SWFWMD under circumstances constituting an emergency, or per an interim water supply shortage as defined in SWFWMD Specific Condition B.II.A.26, no process or cooling water shall be withdrawn from the Upper Floridan aquifer in support of the first 1,000 MW of generating capacity. PEF is authorized to withdraw up to 19,000 gpd Annual Average Daily and 35,000 gpd Peak Month Daily from the Upper Floridan aquifer for domestic and sanitary purposes for the life of the facility from SWFWMD ID No. 6, PEF ID No. P-6. PEF is authorized to withdraw up to 317,000 gpd Annual Average Daily and 475,000 gpd Peak Month Daily from the Upper Floridan aquifer as the source water to the reverse osmosis system from SWFWMD ID No. 153, PEF ID No. P-1 FMW. The authorized sources of process and cooling water in support of such generating capacity shall consist of existing water on site, on-site rainwater and stormwater capture, reuse of internal wastewater streams, and other alternative water supply sources including, but not limited to, industrial wastewater from the PEF Tiger Bay Cogen Facility; treated industrial wastewater from the adjacent Mosaic Fertilizer, LLC – Green Bay and Hookers Prairie facilities; stormwater transfer from the adjacent Estech, Inc. Agricola site; and reuse of treated wastewater (reclaimed water) from the Douglas H. Allen Water Reclamation Facility of the City of Bartow or other reuse sources.

(2) The total quantity of water that PEF is authorized to withdraw from the Upper Floridan aquifer shall be limited to 17.5 MGD Annual Average Daily, which amount is determined by SWFWMD not to have an adverse effect on other legal existing users provided, however, that withdrawal for process or cooling purposes of any water from the Upper Floridan aquifer shall be subject to the following additional Conditions, which shall be applied during review pursuant to Section 403.517, F.S., of any supplemental application for the construction and operation of a further increment of generating capacity at the Hines Energy Complex :

i. PEF shall demonstrate that any incremental quantity of process or cooling water which it proposes to withdraw from the Upper Floridan aquifer in

support of that increment of generating capacity 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 stormwater 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, which PEF shall diligently pursue; and
- 6) Use of other available sources of nonpotable water of technologically suitable quality, such as treated industrial wastewater from nearby phosphate mining operations.

ii. To the extent that maximum total groundwater use in the SWUCA is fixed in a manner which limits the withdrawal of Upper Floridan aquifer water for PEF's Hines Energy Complex, withdrawal by PEF from that source of any quantity greater than 5 MGD, which amount is determined not to have an adverse effect on regional water resources, must be either:

- 1) Offset by mandatory 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 PEF and other Permittees which are subject to review by SWFWMD for conformity with generally applicable standards; or
- 2) Offset through recharge and subsequent withdrawal of water pursuant to the Aquifer Recharge and Recovery Project described in SWFWMD Specific Condition B.II.A.21; or
- 3) Approved as a "competing application" under the applicable standards of Section 373.233, F.S.

iii. To the extent that maximum total groundwater use in the SWUCA is not fixed in a manner which limits the withdrawal of Upper Floridan aquifer water for PEF's Hines Energy Complex, PEF may withdraw from that source up to 17.5 MGD subject to the requirements of SWFWMD Specific Conditions B.II.A.14.a., 14.b.(2).i., and 14.b.(2).ii.1), but not subject to those of Condition B.II.A.14.b.(2).ii.2).

(3) PEF's current development schedule for ultimate site capacity at the Hines Energy Complex estimates incremental additions of generating capacity at an approximate average rate of 500 MW (range of 450 to 550 MW) every four years for the period 1998 through 2018, both inclusive, for a total of approximately 3,000 MW. The

following additional requirements shall apply in order to ensure that PEF's actual water needs are accurately reflected within SWFWMD Specific Condition B.II.A and do not unnecessarily deprive other users of groundwater:

i. In each supplemental application for the construction and operation of a further increment of generating capacity at the Hines Energy Complex, PEF, shall indicate (i) whether it has determined not to install any prior or subsequent increment of generating capacity, (ii) the basis for delay in the installation of any increment of generating capacity for more than 5 years beyond the estimated schedule, and (iii) the quantity of groundwater from the Upper Floridan aquifer which any such increment of capacity that has been eliminated or delayed would have required.

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

c. On-site rainwater and stormwater capture and use, reuse of internal wastewater streams, reuse of available treated wastewater sources, and use of other sources (excluding the Upper Floridan aquifer and intermediate aquifers) of nonpotable water shall constitute reasonable and beneficial uses of water; as such uses are set forth in the SCA and approved in the site certification process, and are hereby authorized as required in support of ultimate capacity at PEF's Hines Energy Complex ; provided, however, that use or reuse of nonpotable water shall be deemed unreasonable if it will result in degradation of cooling pond water quality below the levels proposed by PEF in support of the ultimate site capacity certification or any water quality standard made applicable by federal or state law.

15. PEF shall continue to investigate the feasibility of using reclaimed water and/or other alternative water supply sources as a water source and submit a report to SWFWMD describing the feasibility no later than March 31, 2005, and every two years thereafter. PEF shall also submit an alternative reclaimed water supply feasibility report to SWFWMD in connection with each subsequent application submitted pursuant to SWFWMD Specific Condition B.II.A.14, except when such application is filed within six months of submittal of the last biennial feasibility report required by this Condition. If the subsequent application is submitted within six months of submittal of the last biennial feasibility report required by this Condition, the application shall reference the previous feasibility report and provide any updates of ~~reclaimed~~ alternative water supply feasibility. All ~~reuse~~ feasibility reports PEF submits shall contain an analysis of alternative water supply sources including, but not limited to, reclaimed water sources for the area, including the relative location of these sources to PEF's property, the quantity of ~~reclaimed-alternative~~ water supplies available, the projected date(s) of availability, costs associated with obtaining the ~~reclaimed-water-alternative supplies~~, an explanation of PEF's efforts to obtain such ~~reclaimed~~-water, names of individuals PEF has contacted at each ~~reclaimed~~ alternative water supply provider, a description of any impediments to obtaining that ~~reclaimed~~ water and PEF's efforts to overcome those impediments, and an ~~implementation~~ schedule for implementation reuse, if feasible. Infeasibility to obtain alternative water supply sources shall be supported with a detailed explanation.

16. PEF shall meter all groundwater withdrawals. ~~from surface waters and/or the ground water resources, and m~~Meter readings from each withdrawal shall be recorded on a

monthly basis within the last week of the month. The meter readings shall be reported to ~~the Permit Data Section, Records and Data Department~~ Water Use Permit Bureau (using SWFWMD scanning forms, unless SWFWMD has approved another arrangement for submission of this data) on or before the tenth day of the following month for which the data is being submitted. PEF shall submit meter readings online using the Permit Information Center at www.swfwmd.state.fl.us/permits/epermitting/ or on District-supplied scanning forms unless another arrangement for submission of this data has been approved by the SWFWMD. If a metered withdrawal is not utilized during a given month, the meter report shall be submitted to SWFWMD indicating the same meter reading as was submitted the previous month. The following withdrawals shall be metered as applicable:

a. PEF shall install meters on SWFWMD ID Nos. ~~1, 2, 3, 4, and 5,~~ PEF ID Nos. ~~P-1, P-2, P-3, P-4, and P-5,~~ within 90 days of completion of construction of the withdrawal.

b. PEF shall install a meter on SWFWMD ID No. 153, PEF ID No. P-1 FMW, within 90 days of completion of the withdrawal and associated surface appurtenances.

c. PEF shall continue to maintain and operate existing, non-resettable, totalizing flow meter(s) or other flow measuring device(s) as approved by the Water Use Permit Bureau on SWFWMD ID Nos. 1, 2, and 6, PEF ID Nos. P-1, P-2, and P-6.

d. The meters shall adhere to the following requirements and shall be installed or maintained as follows:

(1) The meter(s) shall be non-resettable, totalizing flow meter(s). If other measuring device(s) are proposed, prior to installation, approval shall be obtained in writing from the Water Use Permit Bureau.

(2) Meters shall be installed on all stand by withdrawal facilities prior to activation.

(3) The flow meter(s) or other approved device(s) shall have and maintain an accuracy within five percent of the actual flow as installed.

(4) The meter shall either be tested for accuracy on-site, as installed, every ~~two~~ five (5) years beginning from the date of installation unless PEF demonstrates to the satisfaction of SWFWMD that a longer period of time for testing is warranted, or alternatively, the meter may be replaced with a factory calibrated or re-calibrated meter. If testing is performed as the means of ensuring accuracy of in-service metering, the test shall be performed by a person certified in the equipment used. If the actual flow is found to vary greater than 5% from the measured flow, PEF shall have the meter re-calibrated or replaced, whichever is necessary. Documentation of the test and a certificate of re-calibration, if applicable, shall be submitted within 30 days of each test or re-calibration using SWFWMD Form LEG R.021.01 (04/09).

(5) The meter shall be installed in a straight length of pipe where there is a least an upstream length equal to ten (10) times the outside pipe diameter and a downstream length equal to two (2) times the outside pipe diameter. Where there is not at least a length equal to ten (10) times the diameter upstream available, flow straightening vanes shall be used in the line.

(6) If the meter or other flow measuring device has malfunctioned or has to be removed from the withdrawal for maintenance or repair, PEF shall notify SWFWMD within 30 days of discovering the necessity to replace or repair the meter and shall replace it with a repaired or new meter, subject to the same specifications as provided herein, within 30 days of its removal from the withdrawal.

(7) When the meter has malfunctioned or has been removed the withdrawal, the PEF shall request instruction on how to estimate use from the Water Use Permit Bureau. The estimate of the number of gallons used each month during that period shall be submitted according to the instructions received from SWFWMD.

(8) In the event a new meter is installed to replace a broken meter, the new meter and its installation shall meet the specifications of this Condition. PEF shall notify SWFWMD of the replacement with the first submittal of meter readings from the new meter.

17. No Change

~~18. During drilling of SWFWMD ID Nos. 1 and 5 (PEF ID Nos. P-1 & P-5), 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 Bartow Regulation Department Director, which will allow representative samples for each depth to be collected.~~

~~Samples shall be analyzed by a certified laboratory for chlorides, sulfates, and TDS. PEF'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 Permit Data Section (using SWFWMD forms) by the tenth day of the second month following sampling, and shall include the signature of an authorized representative and the certification number of the Florida Department of Health-certified laboratory, utilizing the standards and methods applicable to the parameters analyzed and to the water use pursuant to Chapter 64E-1, F.A.C., "Certification of Environmental Laboratories".~~

~~Analyses shall be performed according to procedures outlined in the current edition of Standard Methods for the Examination of Water and Wastewater by the American Public Health Association-American Water Works Association-Water Pollution Control Federation (APHA-AWWA-WPCF) or Methods of Chemical Analyses for Water and Wastes by the U.S. Environmental Protection Agency (EPA).~~

~~1918.~~ PEF shall maintain a continuous recording rain gauge and an evaporation pan at Latitude 27° 47'48" 302.5"N and Longitude 81° 52' 02"16.4"W, SWFWMD ID No. 141154, PEF ID No. RGCP. Total daily rainfall and daily evaporation shall be recorded at this station and submitted to the Water Use Permit Bureau, on SWFWMD forms on or before the tenth day of the following month. The reporting period for each report shall begin on the first day of each month and end on the last day of each month.

~~2019.~~ No Change

~~21~~20. PEF 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 depth is an estimate, based on best available information, of the depth at which high producing zones are encountered. However, it is PEF'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 PEF, and to ensure that withdrawals from the well will not cause salt-water intrusion.

Proposed Facilities

SWFWMD ID No.	PEF ID No.	Surface Diameter	Minimum Casing Depth	Estimated Total Depth
1	P-1	20 in.	300 ft.	880 ft.
2	P-2	20 in.	300 ft.	880 ft.
3	P-3	20 in.	300 ft.	880 ft.
4	P-4	20 in.	300 ft.	880 ft.
5	P-5	20 in.	300 ft.	880 ft.
21	AR-1	24 in.	300 ft.	880 ft.
22	AR-2	24 in.	300 ft.	880 ft.
23	AR-3	24 in.	300 ft.	880 ft.
24	AR-4	24 in.	300 ft.	880 ft.
25	AR-5	24 in.	300 ft.	880 ft.
26	AR-6	24 in.	300 ft.	880 ft.

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

b. All well casing (including liners and submit a report to the depth specified above.

c. The proposed well(s) shall be constructed of materials that are resistant to degradation of the casing/grout due to interaction with the 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 Water Use Permit Bureau.

f. Advance approval from the Water Use Permit Bureau, is necessary should PEF propose to change the well location or casing diameter.

~~22. At least one year prior to the planned production from the first of P-1 through P-5, and prior to initiation of the Aquifer Recharge and Recovery Project, PEF shall submit a detailed plan for a long term aquifer performance test (APT) for approval by the Bartow Regulation Department Director. 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 days (fourteen days is preferable), and shall include collection of water quality data (see Special Condition XXVI.A.17 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 and prior to any recharge of the Upper Floridan aquifer. For review and approval by SWFWMD, a report of the results of the test, including all raw data and analyses, shall be provided to the Permit Data Section within 30 days of the completion of the test.

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

23. Prior to dewatering within 2,640 feet of a property boundary, PEF shall comply with one of the following two 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 Bartow Regulation Department Director 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 PEF's dewatering activity.

b. Implement a procedure to mitigate impacts by maintaining the water table at historic levels at the property boundary. Prior to implementation of the proposed dewatering plan submitted June 28, 1993, PEF must obtain approval from the Bartow Regulation Department Director. The procedure shall include items a, b, c, d, and e under Condition XXVI.A.24.

24. Prior to dewatering within 2,640 feet of on or off site wetlands that will not be disturbed in association with this certification, PEF 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 of the proposed dewatering plan submitted June 28, 1993, PEF must obtain approval, in writing, from the Bartow Regulation Department Director. The procedure shall include:

a. A water table monitoring network, approved by the Bartow Regulation Department Director, designed to demonstrate that water table drawdown does not adversely impact on or off site wetlands.

b. Collection of water table level data after construction of the approved monitor well network for at least two years 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 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 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 elevations shall be reported in feet relative to the National Geodetic Vertical Datum (NGVD). Data shall be submitted in both tabular and graphical format. The tabular format will include SWFWMD Identification Number, water level readings relative to the NGVD, the date the readings were taken, the amount of drawdown that has occurred for each monitoring point for that respective month, and dates dewatering started and stopped. The graphical format shall contain on the x-axis the dates the water level readings were taken and the respective SWFWMD Identification Number. The y-axis shall include the water level elevations relative to the NGVD. Each graph should be representative of a specified dewatered area, and will indicate the elevation, for each season, that should be maintained relative to the NGVD, and the dates when dewatering started and stopped.~~

2521. PEF is authorized to develop a new water resource through the construction of an Aquifer Recharge and Recovery Project on the Hines Energy Complex site (Hines ARRP) that treats surface water and wastewater and injects or recharges that water, subject to FDEP approval, into the Upper Floridan aquifer, which will be used to store and convey this water for subsequent withdrawal and use. The Hines ARRP shall be operated to offset future groundwater withdrawals as provided in SWFWMD Specific Condition B.I.A.14.b.(2).ii. The Hines ARRP shall be developed pursuant to the following criteria:

a. Captured rainwater, reclaimed domestic wastewater effluent, treated industrial waste discharges from ALCOA the Tiger Bay Cogen Facility, treated IWW from alternative water supply projects, and water from the Hines Energy Complex cooling pond, treated to applicable groundwater quality standards for recharge to the Floridan aquifer, may be used for injection into the Upper Floridan aquifer.

b. Existing on-site areas at the Hines Energy Complex may be used as water reservoirs and treatment areas, subject to FDEP approval, for the ARRP.

c. On-site recharge wells shall be constructed in accordance with applicable regulatory standards.

d. Withdrawal amounts from the new water resource developed through the Hines ARRP shall be as follows:

(1) Withdrawals from the Upper Floridan aquifer as offsets generated by the Hines ARRP shall be limited to 85 percent of the total amount of water recharged through the Hines ARRP, as of the date of withdrawal, shall not exceed the rate authorized in SWFWMD Specific Condition B.II.A.14.b., and shall be operated in a manner that results in no adverse impact to off-site existing legal users; and

(2) If the results of the approved aquifer performance test (APT) stipulated in SWFWMD Specific Condition B.II.A.22 make it necessary to submit new groundwater models and the new models show adverse impacts at the rate authorized in SWFWMD Specific Condition B.II.A.14.b, the authorized rate shall be reduced accordingly.

e. PEF shall annually submit an ARRPP Performance Report which will contain, but shall not be limited to, the following:

(1) An account of the cumulative water quantities recharged through the recharge well(s) and the cumulative quantities of water produced through the production wells confirming, based on the monthly injections and pumpage reports, that the cumulative injection/pumpage quantities balance is such that injection exceeds pumpage by no less than 15% at any point in time during the ARRPP operation; and

(2) A narrative and analysis of the overall performance of the ARRPP, addressing strengths, weaknesses, problems, and future plans with time frames for improvement.

~~2622~~. PEF shall continue to maintain SWFWMD-approved staff gauge(s) and report measurements of water levels, as indicated in the table below. Water levels shall be recorded and reported to the Water Use Permit Bureau (on SWFWMD forms) on or before the tenth day of the following month. To the maximum extent possible, water levels shall be recorded as indicated in the table below. The frequency of recording may be modified by the Water Use Permit Bureau, as necessary to ensure the protection of the resource.

SWFWMD ID No.	PEF ID No.	Water Body/Wetland	Latitude/ Longitude	Recording Frequency
121	HSG-1	Cooling Pond	27°47'31"/81°52'03"	Weekly <u>2/mo.</u>
122	SG-P-1	Rain Cropping Area	27°49'02"/81°54'39"	Weekly <u>2/mo.</u>
123	SG-WC-1	Rain Cropping Area	27°49'30"/81°53'14"	Weekly <u>2/mo.</u>
124*	SG-WC-2	Rain Cropping Area	27°47'33"/81°50'45"	Weekly <u>2/mo.</u>
125	SG-WC-3	Rain Cropping Area	27°47'02"/81°51'54"	Weekly <u>2/mo.</u>
126	SG-MC-1	Rain Cropping Area	27°46'52"/81°52'32"	Weekly <u>2/mo.</u>
127	SG-CB-1	Rain Cropping Area	27°47'31"/81°50'13"	Weekly <u>2/mo.</u>

Water Level Recording Timetable: ~~Weekly Same day of each week~~ 2nd and 4th weeks of the month during the same day each week.

* This location may be removed when this area is incorporated into the Cooling Pond.

~~2723~~. PEF shall meter injections of water into the Upper Floridan aquifer, and meter readings from each injection well shall be recorded on a monthly basis within the last week of the month. The meter reading(s) shall be reported to the Water Use Permit Bureau

(using SWFWMD scanning forms, unless SWFWMD has approved another arrangement for submission of this data) on or before the tenth day of the following month. If a metered injection well is not utilized during a given month, the meter report shall be submitted to SWFWMD indicating the same meter reading as was submitted the previous month. The following injection wells shall be metered as applicable:

a. PEF shall install and maintain meters on SWFWMD ID Nos. 21, 22, 23, 24, 25, and 26, PEF ID Nos. AR-1, AR-2, AR-3, AR-4, AR-5, and AR-6, within 90 days of completion of construction of the injection well and associated injection equipment.

b. The meters shall adhere to the following requirements and shall be installed or maintained as follows:

(1) The meter(s) shall be non-resettable, totalizing flow meter(s). If other measuring device(s) are proposed, prior to installation, approval shall be obtained in writing from the Water Use Permit Bureau.

(2) Meters shall be installed on all standby injection facilities prior to activation.

(3) The flow meter(s) or other approved device(s) shall have and maintain an accuracy within five percent of the actual flow as installed.

(4) The meter shall be tested for accuracy on-site, as installed, every ~~two~~ five (5) years beginning from the date of issuance unless PEF demonstrates to the satisfaction of SWFWMD that a longer period of time for testing is warranted. The test shall be performed by a person certified in the equipment used. If the actual flow is found to vary greater than 5% from the measured flow, PEF shall have the meter re-calibrated or replaced, whichever is necessary. Documentation of the test and a certificate of re-calibration, if applicable, shall be submitted within 30 days of each test or re-calibration.

(5) The meter shall be installed in a straight length of pipe where there is at least an upstream length equal to ten (10) times the outside pipe diameter and a downstream length equal to two (2) times the outside pipe diameter. Where there is not at least a length equal to ten (10) times the diameter upstream available, flow straightening vanes shall be used in the line.

(6) If the meter or other flow measuring device malfunctions or has to be removed from the withdrawal for maintenance or repair, PEF shall notify SWFWMD within 30 days of discovering the necessity to replace or repair the meter and shall replace it with a repaired or new meter, subject to the same specifications as provided herein, within 30 days of its removal from the injection well.

(7) When the meter has malfunctioned or has been removed from the withdrawal, PEF shall request instruction on how to estimate use from the Water Use Permit Bureau. The estimate of the number of gallons injected each month during that period shall be submitted according to the instructions received from SWFWMD.

(8) In the event a new meter is installed to replace a broken meter, the new meter and its installation shall meet the specifications of this Condition. PEF shall notify SWFWMD of the replacement with the first submittal of meter readings from the new meter.

~~2824~~ 2824. PEF shall record meter readings from each reuse line on a monthly basis within the last week of the month. The meter reading(s) shall be reported to the Water Use Permit Bureau (using SWFWMD scanning forms, unless SWFWMD has approved another arrangement for submission of this data) on or before the tenth day of the following month. If a metered reuse line is not utilized during a given month, the meter report shall be submitted to SWFWMD indicating the same meter reading as was submitted the previous month. The following reuse lines shall be metered:

a. PEF shall ~~install~~ record and report meters readings on existing reuse line, SWFWMD ID No. 52, PEF ID No. ATB-1 ~~within 90 days of completion of construction of the reuse delivery system~~. In metering and reporting the quantities conveyed through this line, PEF shall meter or estimate the amount of reuse water contributed by each of the following components: industrial wastewater from ALCOA; industrial wastewater from the Tiger Bay Cogeneration Facility; fresh groundwater for pipe flushing; and fresh groundwater for water supply shortage at the Hines Energy Complex. PEF shall submit two copies of the report, one for the Hines Energy Complex, and one for the Tiger Bay Cogeneration Facility.

If there is more than one episode of conveyance in one month for any of the flow components, the report should contain the corresponding information (meter readings, quantities, and dates, related to each episode in addition to the net quantities conveyed during the month for the each of the flow components.

b. PEF shall ~~install~~ record and report meters readings on existing reuse line SWFWMD ID No. 51, PEF ID No. BED ~~prior to October 1, 2003~~. The meter at the City of Bartow's Douglas H. Allen Reclaimed Water Facility used to monitor flows directed to the Hines Energy Complex is sufficient to meet this requirement.

c. The meters shall adhere to the following requirements and be ~~installed or~~ maintained as follows:

(1) The meters shall be non-resettable, totalizing flow meter(s). If other measuring device(s) or other accounting methods are proposed, the PEF shall submit documentation that the other measuring devices or accounting methods meet the stipulations listed in this Condition, prior to installation. Approval for other measuring devices or accounting methods shall be obtained in writing from the Water Use Permit Bureau.

(2) The flow meters or other approved devices shall have and maintain an accuracy within five percent of the actual flow as installed.

(3) The meter shall be tested for accuracy on-site, as installed, every five (5) years beginning from the date of issuance, unless the PEF submits documentation to the satisfaction of SWFWMD that a longer period of time for testing is warranted. The test shall be performed by a person certified to use the test equipment. If the actual flow is found to vary than 5% from the measured flow, the PEF shall have the meter re-calibrated or replaced, whichever is necessary. Documentation of the test and a certificate of re-calibration, if applicable, shall be submitted within 30 days of each test or re-calibration. If the alternative accounting method involves a meter belonging to another entity or to the reclaimed water supplier, the PEF shall submit documentation from the owner/ supplier that the meter readings continue to be accurate to 5% of the actual flow as installed. Such documentation is subject to approval by SWFWMD.

(4) The meter shall be installed in a straight length of pipe where there is at least an upstream length equal to ten (10) times the outside pipe diameter and a downstream length equal to two (2) times the outside pipe diameter. Where there is not at least a length of ten diameters upstream available, flow straightening vanes shall be used in the upstream line.

(5) If the meter or other flow measuring device malfunctions or has to be removed from the reuse line for maintenance or repair, PEF shall notify SWFWMD within 30 days of discovering the necessity to replace or repair the meter, and shall replace it with a repaired or new meter, subject to the same specifications given above, within 30 days of its removal from the reuse line.

(6) While the meter is off the reuse line, PEF shall request instructions on how to estimate use from the Water Use Permit Bureau. The estimate of the number of gallons used each month during that period shall be submitted according to the instructions received from SWFWMD.

(7) In the event a new meter is installed to replace a broken meter, the new meter and its installation shall meet the specifications of this Condition. PEF shall notify SWFWMD of the replacement with the first submittal of meter readings from the new meter.

~~29. PEF shall continue to maintain SWFWMD approved staff gauge(s) and report measurements of water levels, as indicated in the table below. Water levels shall be recorded and reported to the Permit Data Section, Records and Data Department, (on SWFWMD forms) on or before the tenth day of the following month. To the maximum extent possible, water levels shall be recorded as indicated in the table below. The frequency of recording may be modified by the Bartow Regulation Department Director, as necessary to ensure the protection of the resource.~~

SWFWMD ID No.	PEF ID No.	Water Body/Wetland	Latitude/ Longitude	Recording Frequency
121	HSG-1	Cooling Pond	27°47'31"/81°52'03"	Weekly
122	SG-P-1	Rain-Cropping Area	27°49'02"/81°54'39"	Weekly
123	SG-WC-1	Rain-Cropping Area	27°49'30"/81°53'14"	Weekly
124*	SG-WC-2	Rain-Cropping Area	27°47'33"/81°50'45"	Weekly
125	SG-WC-3	Rain-Cropping Area	27°47'02"/81°51'54"	Weekly
126	SG-MC-1	Rain-Cropping Area	27°46'52"/81°52'32"	Weekly
127	SG-CB-1	Rain-Cropping Area	27°47'31"/81°50'13"	Weekly

Water Level Recording Timetable: Weekly Same day of each week

* This location may be removed when this area is incorporated into the Cooling Pond.

c. The meters shall adhere to the following requirements and be installed or maintained as follows:

(1) — The meter(s) shall be non-resettable, totalizing flow meter(s). If other measuring device(s) or other accounting methods are proposed, the PEF shall submit documentation that the other measuring devices or accounting methods meet the stipulations listed in this condition, prior to installation. Approval for other measuring devices or accounting methods shall be obtained in writing from the Bartow Regulation Department Director.

(2) — The flow meter(s) or other approved device(s) shall have and maintain an accuracy within five percent of the actual flow as installed.

(3) — The meter shall be tested for accuracy on-site, as installed, every two years beginning from the date of issuance, unless the PEF submits documentation to the satisfaction of SWFWMD that a longer period of time for testing is warranted. The test shall be performed by a person certified to use the test equipment. If the actual flow is found to vary than 5% from the measured flow, the PEF shall have the meter re-calibrated or replaced, whichever is necessary. Documentation of the test and a certificate of re-calibration, if applicable, shall be submitted within 30 days of each test or re-calibration. If the alternative accounting method involves a meter belonging to another entity or to the reclaimed water supplier, the PEF shall submit documentation from the owner/ supplier that the meter readings continue to be accurate to 5% of the actual flow as installed. Such documentation is subject to approval by SWFWMD.

(4) — The meter shall be installed in a straight length of pipe where there is at least an upstream length equal to ten (10) times the outside pipe diameter and a downstream length equal to two (2) times the outside pipe diameter. Where there is not at least a length of ten diameters upstream available, flow straightening vanes shall be used in the upstream line.

(5) — If the meter or other flow measuring device malfunctions or has to be removed from the reuse line for maintenance or repair, PEF shall notify SWFWMD within 30 days of discovering the necessity to replace or repair the meter, and shall replace it with a repaired or new meter, subject to the same specifications given above, within 30 days of its removal from the reuse line.

(6) — While the meter is off the reuse line, PEF shall request instructions on how to estimate use from the Permit Data Section. The estimate of the number of gallons used each month during that period shall be submitted according to the instructions received from SWFWMD.

(7) — In the event a new meter is installed to replace a broken meter, the new meter and its installation shall meet the specifications of this condition. PEF shall notify SWFWMD of the replacement with the first submittal of meter readings from the new meter.

30. — PEF is limited to an Annual Average Daily withdrawal of 800,000 gpd and Peak Month Daily withdrawal of 1,000,000 gpd of groundwater to be transferred from the

~~Tiger Bay Cogeneration Facility for Power Block 1 and Power Block 2 at the Hines Energy Complex as a water supply shortage contingency.~~

~~3125.~~ No Change

~~3226.~~ An interim water supply shortage as used in SWFWMD Specific Condition B.II.A.14.b., shall mean a shortage of previously authorized process and cooling water sources which results in the inability of PEF to prevent the operational water level of the Hines cooling pond from being lowered below an elevation of 158.5 feet National Geodetic Vertical Datum (NGVD). If the water level becomes less than 158.5 feet NGVD, despite all reasonable efforts by PEF to prevent such lowering of water level by utilizing all previously authorized water sources to the greatest extent practicable, as identified in SWFWMD Specific Condition B.II.A.14.b.(2).i, PEF is authorized until November 30, 2005, unless an alternate date is agreed to by the District, to transfer Upper Floridan aquifer groundwater authorized to be used at PEF's Tiger Bay facility pursuant to PA 97-37 Conditions of Certification, to the Hines cooling pond, subject to the following:

a. PEF must notify SWFWMD Water Use Permit Bureau, in writing, that a water supply shortage has occurred or is expected to occur and that it intends to transfer Tiger Bay groundwater to the Hines cooling pond. This notification must be provided at least ten (10) days in advance of the actual transfer of Tiger Bay groundwater.

b. PEF must concurrently provide a copy of the notification to the FDEP, SCO.

c. PEF shall include in its notification documentation that all previously authorized sources of water, as identified in SWFWMD Specific Condition B.II.A.14.b.(2).i, are being used to the greatest extent practicable. Additionally, such notification shall include details on any water conservation measures which were being implemented in an effort to avoid a water supply shortage and which will be continued in order to reduce the amount of transferred withdrawals needed to alleviate the water supply shortage. PEF will account in its Tiger Bay monthly pumpage reports any groundwater quantities used for transfer to Hines to alleviate the interim water supply shortage.

d. PEF shall equip the water transfer pipeline from Tiger Bay to the Hines cooling pond with non-resettable totalizing flow meters, or other flow measuring devices as approved by SWFWMD Water Use Permit Bureau, and shall monitor and record the amount of transferred groundwater used to alleviate the water supply shortage. The flow meter(s) shall comply with the content of SWFWMD Specific Condition B.II.A.16 and be capable of separately calculating transferred Tiger Bay groundwater from other sources of water or wastewater to be conveyed via the pipe to the Hines cooling pond. The reporting of the quantities thus measured shall be in accordance with SWFWMD Specific Condition B.II.A.24.a.

e. When the water level in the Hines cooling pond rises to an elevation of 158.5 feet NGVD, and PEF is able to successfully maintain the water level at or above 158.5 feet NGVD for seven (7) consecutive days, the water supply shortage shall be considered to have ended and PEF shall discontinue the use of transferred groundwater from Tiger Bay.

f. Within 30 days of cessation of groundwater transfers during a water supply shortage, PEF shall provide written notification to SWFWMD Water Use Permit

Bureau of the cessation of these transfers. This notification shall provide the number of days that Tiger Bay groundwater was transferred to the Hines cooling pond and the total volume of groundwater transferred. Additionally, this notification shall include a report, including tabulated data and a graph showing the rate at which water was supplied compared to the change occurring in the cooling pond level, through the entire duration of the groundwater transfer. The pond water level during a water shortage event shall be measured daily. The graphic report shall present these measurements for the entire duration of the water supply shortage.

g. The quantity of groundwater authorized for use at the Tiger Bay facility shall be reduced by the amount of that source being transferred to the Hines cooling pond during the water supply shortage. At no time will the groundwater quantities produced at the Tiger Bay facility exceed the permitted quantities for that facility. The monthly groundwater pumpage reports required to be submitted to SWFWMD per Condition XIV.D.4 (Groundwater Management) of the Siting Certification No. PA 97-36 of the Tiger Bay Cogeneration Facility shall include a breakdown of quantities produced for use at the Tiger Bay facility, water shortage transfer to the Cooling Pond at the Hines Energy Complex, and for flushing the pipelines associated with water conveyance to the Hines Energy Complex.

h. PEF shall undertake diligent efforts to investigate and, if feasible, modify the Hines Energy Complex watercrop system or otherwise locate sources of water, other than potable groundwater, to eliminate or substantially reduce the need to transfer groundwater from the Tiger Bay facility. PEF's diligent efforts shall include, but not be limited to, investigating the feasibility of the following: modifying or making changes to the Hines Energy Complex's watercrop system to increase runoff or storage; transferring industrial wastewater from the Tiger Bay facility; obtaining industrial wastewater from US Agri-Chemicals Corporation (USAC), Mosaic Fertilizer, LLC, or Estech, Inc. to transfer to the Hines Energy Complex; increasing the amount of impervious surface at the Plant Island portion of the Hines Energy Complex to increase surface water runoff flows into the cooling pond; transferring industrial wastewater from the nearby ALCOA facility; withdrawing water from surface water sources; and locating and using other sources of reclaimed domestic wastewater and/or treated industrial wastewater.

~~By August 31, 2005, PEF shall provide written reports to the SWFWMD Permits Data Section regarding its efforts to locate additional sources of water pursuant to this condition. The report shall detail PEF's efforts to obtain additional water sources pursuant to this condition, any impediments PEF has encountered, and PEF's efforts or plans for overcoming those impediments if possible, and, if additional sources will be secured, the time frame for delivering water from those sources.~~

i. As a water supply shortage contingency, PEF's is authorized~~ion~~ to receive transfer groundwater quantities from the Tiger Bay Cogeneration Facility to for the Hines Energy Complex, not to exceed Tider Bay's total authorized groundwater withdrawal quantities as specified in Tiger Bay Cogeneration Facility Site Certification No. PA 97-37. ~~pursuant to this Condition shall end on November 30, 2005.~~

~~3327.~~ No Change

~~3428.~~ Within 90 days of construction of the withdrawal facility, an automated flow control system shall be installed and maintained on the groundwater flow from SWFWMD ID Nos. 1, 2, 3, 4, and 5, PEF ID Nos. P-1, P-2, P-3, P-4, and P-5. The automated flow control

system (i.e., the automated shutoff device) shall be properly maintained at all times to control the wells' water flow into the Cooling Pond, such that no discharge into the pond would take place when the elevation in the Cooling Pond is at or above 160.0 feet NGVD.

~~35.—PEF shall perform a feasibility study to explore and utilize groundwater resources of the Lower Floridan aquifer at the Hines Energy Complex. The Lower Floridan aquifer is defined as the Oldsmar formation, the Cedar Keys formation, or lower formations. The objective of this feasibility study is to determine whether such formations are alternative sources for the fresh groundwater of the Upper Floridan aquifer. The feasibility study shall initially include at least one deep test well in the Lower Floridan aquifer for an initial determination of hydrogeological parameters and characteristics of the Lower Floridan aquifer at the project site. In order to assess the potential for use of the Lower Floridan, the study shall determine the water quality of the Lower Floridan aquifer and assess its feasibility as an alternative source, including prospects for brines disposal if need be, and once through, non-contact cooling by re-circulation of the Lower Floridan aquifer water. If the use of the Lower Floridan aquifer water is determined to be feasible based on water quality, transmissivity, and/or re-circulation through the aquifer, additional study of the yield and the degree of interconnection between the Lower and Upper Floridan aquifers shall be undertaken. Any Lower Floridan aquifer exploratory work conducted by the SWFWMD at the Hines Energy Complex site may be used by PEF toward satisfying PEF's requirement to conduct the feasibility study outlined in this condition. However, such SWFWMD exploratory work shall not necessarily constitute in itself all that is required to satisfy the requirements of this condition. Analysis and interpretation of the results of exploratory work conducted by SWFWMD will still be required to be conducted by PEF as part of the required feasibility study.~~

~~—— At least 90 days prior to the initiation of implementation of the exploration and feasibility study, PEF shall submit for approval by the Director of the District's Bartow Regulation Department an "Exploratory and Feasibility Study Plan of the Lower Floridan Aquifer (E&FS Plan)." The implementation of the approved plan, evaluation of the data, and the submittal of the feasibility study to SWFWMD must be completed prior to submitting a Supplemental Site Certification Application requesting more than a total Annual Average quantity of 5.0 MGD, not including any offsets outlined in Condition XXVI.A.14.b.ii.2. If deemed a feasible water source, any such Supplemental Site Certification Application shall include a plan for use of the Lower Floridan aquifer.~~

3629. PEF shall develop and continue implementation of a measurement and monitoring plan for the existing on-site rainwater/IWW capture and reuse system (known as the watercrop system) approved by by SWFWMD Specific Condition B.II.A.14.c. The watercrop system measurement and monitoring plan ~~shall be~~ is designed to obtain information that can be used to establish accurate estimates of water production yields from the watercrop system under various rainfall events and to determine flows leaving the site to supply natural systems (including runoff discharges from buffer areas). PEF ~~FPG~~ PEF shall submit the watercrop system measurement and monitoring plan to SWFWMD for review and approval by November 15, 2003. The plan shall contain a timetable for the installation and operation of gauges, meters, recorders, and other equipment that the plan sets forth to use in measuring and monitoring the watercrop system. The plan shall also set forth a schedule for collecting data and reporting that data to SWFWMD. Upon receiving SWFWMD approval, PEF shall implement the watercrop system measurement and monitoring plan according to the timeframes set forth in the approved

plan an updated watercrop system measurement and monitoring plan within 60 days of implementing any new alternative water supply project used to augment cooling pond supplies via the watercrop storage areas.

By April 1 of each year, PEF shall submit an "Annual Water Crop System Report for the Hines Energy Complex" summarizing the data collected per the approved "Measurement and Monitoring Plan for the Water Crop System". The report shall document estimates of water production yields from the watercrop system under various rainfall events, and estimates of flows leaving the site to supply natural systems (including runoff discharges from buffer areas). The report shall present an overall evaluation of the functioning of the system and recommendations for its improvement.

3730. No Change

~~3831. PEF shall not utilize groundwater through the withdrawals SWFWMD ID Nos. 1 and 2, PEF's ID Nos. P-1 and P-2, until Power Block 3 becomes operational. PEF shall not utilize groundwater through the withdrawal SWFWMD ID Nos. 3, PEF's ID Nos. P-3, until Power Block 4 becomes operational. In addition, PEF shall only utilize groundwater through the withdrawals SWFWMD ID Nos. 1, 2 and 3, PEF's ID Nos. P-1, P-2 and P-3, and only when the elevation of the water level in the Cooling Pond, as measured weekly at SWFWMD ID No. 121, PEF ID No. HSG-1, is below 160.00 feet NGVD. Minor withdrawals associated with routine pump maintenance and water quality sampling are exempt from this requirement.~~

~~3932. For Power Blocks 1, 2, and 3, PEF shall not utilize groundwater through SWFWMD ID Nos. 1 and 2, PEF's ID Nos. P-1 and P-2, at the PMD rate of 4,400,000 gpd except when and only when the elevation of the water level in the Cooling Pond, as weekly measured at SWFWMD ID No. 121, PEF ID No. HSG-1, is below 159.00 feet NGVD. For Power Blocks 1, 2, 3, and 4, PEF shall not utilize groundwater through SWFWMD ID Nos. 1, 2 and 3, PEF's ID Nos. P-1, P-2 and P-3, at the PMD rate of 8,800,000 gpd except when and only when the elevation of the water level in the Cooling Pond, as weekly measured at SWFWMD ID No. 121, PEF ID No. HSG-1, is below 159.00 feet NGVD.~~

~~4033. In the event that PEF exceeds during a drought year the Annual Average Daily (AAD) quantity of 2,619,000 gpd and the Peak Month Daily (PMD) quantity of 4,435,000 gpd from the onsite groundwater withdrawals after PB 3 becomes operational, or the Annual Average Daily (AAD) quantity of 5,019,000 gpd and the Peak Month Daily (PMD) quantity of 8,835,000 gpd from the onsite groundwater withdrawals after PB 3 and PB 4 become operational, then PEF shall submit a report, based on but not limited to the information cited in Condition XXVI.A.30, explaining and analyzing, subject to SWFWMD approval, the Conditions under which those quantities were exceeded. PEF shall not discharge any amount of groundwater into the Cooling Pond at the Hines Energy Complex when the water level in the Cooling Pond is at or above 160.0 feet NGVD. If PEF demonstrates that the recurrence of over-pumpage is unlikely and no adverse impacts have occurred, no action will be taken. If PEF continues to exceed the quantities permitted without obtaining a modification, SWFWMD may take appropriate enforcement action.~~

B. Surface Water Use Management

Changes to these requirements are clarified in the attachments discussed below

Modifications associated with the incorporation of general conditions and other updates

The updated Conditions PA 92-33I (Attachment A) replace the existing Conditions PA 92-33H (Attachment B) in their entirety. Several existing conditions have been updated and incorporated into a more uniform set of general conditions. Many existing conditions have been moved to different sections of the document.

Adobe PDFs of the updated (Attachment A) and existing (Attachment B) Conditions can be downloaded from the following file transfer protocol (ftp) site:

<http://publicfiles.dep.state.fl.us/Siting/Outgoing/PEF%20Hines%20Mod%20I/>.

The existing Conditions (Attachment B) contain cross references, which have been electronically linked to the corresponding conditions in the updated Conditions (Attachment A) and vice versa, appearing in red following each section of the documents. In order to toggle between the two documents on your screen, copy both files (Attachments A & B) from the ftp site above and paste them into a single folder and then open both files. (If you open the documents from the ftp site and "Save As" using a different file name, the links will not work. You must copy and paste with the same file names.) Clicking on a link in Attachment B will take you directly to the corresponding condition in Attachment A and vice versa.

A complete set of the updated Conditions (including attachments) can be viewed and downloaded from the following website:

http://publicfiles.dep.state.fl.us/Siting/Outgoing/Web/Certification/pa92_33_2012_I.pdf.

Copies of the Conditions and/or attachments may also be obtained by contacting the Department of Environmental Protection, Siting Coordination Office, 3900 Commonwealth Blvd., M.S. 48, Tallahassee, Florida 32399-3000, (850) 245-2002.

Any party to the this Order has a right to seek judicial review of it pursuant to Section 120.68, F.S. by filing a Notice of Appeal, pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department of Environmental Protection in the Office of General Counsel, 3900 Commonwealth Boulevard, M.S. 35, 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 30 days from the date this Order is filed with the Clerk of the Department of Environmental Protection.

Sincerely,



Cindy Mulkey
Administrator,
Siting Coordination Office

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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 Date

7/31/12

Service List: *Sent by Electronic Mail – Received Receipt Requested*

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