

STATE OF FLORIDA
SITING BOARD

DEP 05-0703

IN RE: PROGRESS ENERGY FLORIDA)
HINES ENERGY CENTER POWER,)
BLOCK 4 POWER PLANT SITING)
APPLICATION NO. PA 92-33SA3.)
_____)

OGC CASE NO. 04-1449
DOAH CASE NO. 04-2817EPP

FINAL ORDER OF CERTIFICATION

On April 5, 2005, an administrative law judge with the Division of Administrative Hearings ("DOAH") submitted his Recommended Order in this site certification proceeding. The Recommended Order indicates that copies were served upon counsel for the Department of Environmental Protection ("DEP"), the applicant, Progress Energy Florida ("PEF"), and the Southwest Florida Water Management District ("SWFWMD"). The Recommended Order also reflects service upon counsel for other designated state, regional and local agencies. A copy of the Recommended Order is attached as Exhibit A. The matter is now before the Governor and Cabinet, sitting as the Siting Board, for final action under the Florida Electrical Power Plant Siting Act ("PPSA") embodied in §§ 403.501-403.518, F.S.

BACKGROUND

PEF, formerly known as Florida Power Corporation, is an electric utility company, which operates 14 power plant facilities in the State of Florida. PEF currently provides electric service to approximately 1.5 million customers in a 35-county service area. PEF's service area extends from the Florida panhandle through the center part of the State, including the west coast of Florida north of the Tampa Bay area.

In August of 2004, PEF filed a Supplemental Application with DEP seeking site certification for the proposed Hines Energy Center Power Block 4 project ("Power Block 4" or

“Project”). The site of the proposed Project is within the existing PEF Hines Energy Complex (“Complex”) located southwest of the City of Bartow in Polk County, Florida. The adjacent land uses surrounding the Complex site consist almost entirely of active phosphate mining or reclaimed phosphate mine lands. The entire Complex encompasses approximately 8,200 acres of reclaimed phosphate mine lands, but the existing and future power plant generation facilities are confined to a 704-acre island portion of the Complex.

In January of 1994, the Siting Board certified the entire Complex for an ultimate site capacity of 3,000 megawatts (MW) of electrical generating capacity, and also granted site certification at the Complex for the construction and operation of an initial 470 MW combined cycle unit known as Power Block 1. This 1994 site certification also established that the full 3,000 MW of generating capacity and the Complex site are consistent with the local land use plans and zoning regulations of Polk County.

In 2001, the Siting Board granted certification for the construction and operation at the Complex site of Power Block 2, a 530 MW combined cycle unit, which began operation in 2003. In 2003, the Siting Board granted certification for Power Block 3, another 530 MW combined cycle power plant, which is currently under construction and is expected to be operational in late 2005. The proposed Power Block 4, a 530 MW combined-cycle power plant, is similar to Power Blocks 1, 2 and 3. Power Block 4 is to be fueled primarily with natural gas, and fuel oil will be used as a backup fuel. The Power Block 4 unit will be located west of Power Blocks 1, 2 and 3, and will encompass approximately five acres of the 704-acre power plant island portion of the Complex. Power Block 4 is expected to be mechanically complete by June of 2007.

DOAH PROCEEDINGS

PEF's Supplemental Site Certification Application was forwarded to DOAH for formal administrative proceedings. On February 17, 2005, a joint prehearing stipulation was submitted indicating that no party to the proceeding objected to certification of the Project. Administrative Law Judge, Charles A. Stampelos ("ALJ"), held a formal administrative hearing in Bartow on March 23, 2005. The purpose of the formal hearing was to receive evidence on the issue of whether the Project site is entitled to certification pursuant to the criteria set forth in § 403.502 of the PPSA. Testimony and exhibits were presented by DEP and PEF at the certification hearing, including DEP's revised Staff Analysis Report and Conditions of Certification. The SWFWMD appeared at the hearing through its counsel, but presented no evidence. No other agencies or members of the public appeared at the hearing.

The ALJ entered a Recommended Order in this supplemental site certification proceeding on April 5, 2005. The ALJ concluded that the evidence presented at the hearing demonstrated that the construction and operational safeguards for the Project are technically sufficient to protect the health and welfare of the citizens of Florida and are reasonable and available methods to achieve that protection. The ALJ further concluded that the Power Block 4 unit (if constructed, maintained, and operated in accordance with the Recommended Order and DEP's proposed Conditions of Certification) will produce minimal adverse effects on human health, the environment, the ecology of the land and its wildlife, and the ecology of state waters and their aquatic life. The ALJ ultimately recommended that the Siting Board grant PEF's Supplemental Site Certification Application, subject to DEP's Conditions of Certification.

CONCLUSION

None of the parties to this proceeding opposed site certification of PEF's proposed Power Block 4 unit. Furthermore, no Exceptions to Recommended Order have been filed challenging any of the ALJ's factual findings, legal conclusions, or recommendation. Based on a review of the record and the provisions of the PPSA, the Siting Board concludes that supplemental site certification of PEF's proposed Power Block 4 unit serves and protects the broad interests of the public and should be approved.

It is therefore ORDERED that:

A. The ALJ's Recommended Order is adopted in its entirety and is incorporated by reference into this Final Order.

B. Site certification of the Power Block 4 unit as proposed in PEF's Supplemental Site Certification Application and described in the Recommended Order is hereby APPROVED, subject to the Conditions of Certification set forth in Appendix I to DEP Exhibit 2, which are incorporated by reference herein.

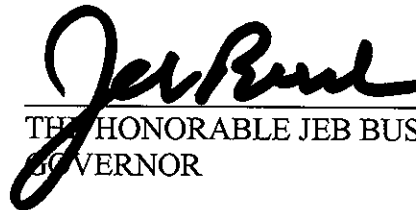
C. Authority to assure and enforce compliance by Progress Energy Florida and its agents with the Conditions of Certification imposed by this Final Order is hereby delegated to DEP, except that any proposed modification to burn a fuel other than natural gas or fuel oil shall be reviewed by the Siting Board.

Any party to this proceeding has the right to seek judicial review of this final order pursuant to Section 120.68, F.S., by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the clerk of the Department 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 Final Order is filed with the clerk of the Department.

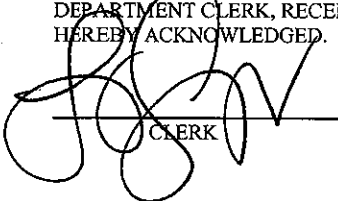
DONE AND ORDERED this 7th day of June, 2005, in Tallahassee, Florida, pursuant to a vote of the Governor and Cabinet, sitting as the Siting Board, at a duly noticed and constituted Cabinet meeting held on May 17th, 2005.

THE GOVERNOR AND CABINET
SITTING AS THE SITING BOARD



THE HONORABLE JEB BUSH
GOVERNOR

FILED ON THIS DATE PURSUANT TO § 120.52,
FLORIDA STATUTES, WITH THE DESIGNATED
DEPARTMENT CLERK, RECEIPT OF WHICH IS
HEREBY ACKNOWLEDGED.



CLERK

6/8/05

DATE

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a copy of the foregoing Final Order on Certification has been sent by United States Postal Service to:

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Ann Cole, Clerk and
Charles A. Stampelos, Administrative Law Judge
Division of Administrative Hearings
The DeSoto Building
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Tallahassee, FL 32399-1550

Raquel A. Rodriguez, Esquire
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and by hand delivery to:

Scott A. Goorland, Esquire
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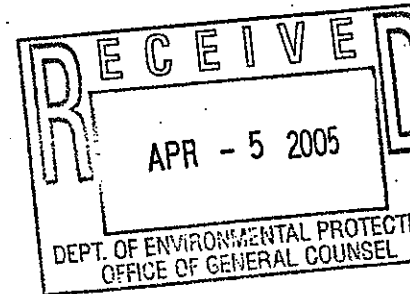
this 8th day of June, 2005.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION


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STATE OF FLORIDA
DIVISION OF ADMINISTRATIVE HEARINGS



IN RE: PROGRESS ENERGY FLORIDA)
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SITE CERTIFICATION RECOMMENDED ORDER

Pursuant to due notice, the Division of Administrative Hearings, by its duly-designated Administrative Law Judge, Charles A. Stampelos, held a certification hearing in the above-styled case on March 23, 2005, in Bartow, Florida.

APPEARANCES

For Progress Energy Florida:

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For the Department of Environmental Protection:

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STATEMENT OF THE ISSUE

The issue to be resolved in this proceeding is whether the Governor and Cabinet, sitting as the Siting Board, should issue a final order granting certification to Progress Energy Florida ("PEF"), to construct and operate a new 530 megawatt ("MW") natural gas-fired electrical power plant in Polk County, Florida. The proposed site for the Project is located at PEF's existing Hines Energy Complex, southwest of Bartow, Florida.

PRELIMINARY STATEMENT

This proceeding was conducted pursuant to the Florida Electrical Power Plant Siting Act ("PPSA"), Chapter 403, Part II, Florida Statutes, and Florida Administrative Code Chapter 62-17, to consider PEF's application for site certification for the proposed Hines Power Block 4 (also referred to as the "Project").

On August 5, 2004, Florida Power Corporation, doing business as PEF filed its Supplemental Application for site certification for the Hines Power Block 4 with the Florida Department of Environmental Protection ("Department" or "FDEP"). The application was found to be complete on August 20, 2004. The application was found to be sufficient on November 22, 2004.

On November 23, 2004, the Florida Public Service Commission (FPSC) issued its Final Order determining the need for the proposed electrical power plant.

On February 16, 2005, FDEP issued its written Staff Analysis Report concerning the Project, as required by Section 403.507(4), Florida Statutes, incorporating the reports from other state and regional agencies and proposing a comprehensive set of proposed Conditions of Certification.

On February 17, 2005, a joint Prehearing Stipulation was submitted to the undersigned, which indicated that no party to this proceeding objected to certification of the Project.

On March 23, 2005, during the certification hearing, FDEP submitted its revised Staff Analysis Report as an exhibit.

After proper public notice by both PEF and by FDEP, a certification hearing was held in Bartow, Florida, on March 23, 2005, as required by Section 403.508(3), Florida Statutes. The purpose of the certification hearing was to receive oral, written, and documentary evidence concerning whether, through available and reasonable methods, the location and operation of the proposed Hines Power Block 4 would produce minimal adverse effects on human health, the environment, the ecology of the land and its wildlife, and the ecology of State waters and their aquatic life, in an effort to fully balance the increase in demand for an electrical power plant location and operation with the broad interests of the public. See § 403.502, Fla. Stat. The hearing would have also considered any petitions challenging the separate FDEP-issued prevention of significant deterioration

("PSD") permit for the Project. However, no such petition was filed.

At the certification hearing, PEF presented the oral testimony of three witnesses and had PEF Exhibits (PEF Ex.) numbered 1 through 10 admitted into evidence. These exhibits included the pre-filed written testimony of five witnesses. That testimony was filed pursuant to Florida Administrative Code Rule 62-17.141(3). The pre-filed written testimony of two witnesses, Karl Bullock and Richard Zwolak, has been accepted, based upon their execution of affidavits attesting to the accuracy of the testimony and accompanying exhibits. The other three witnesses adopted their pre-filed testimony during the hearing. FDEP presented the testimony of Steven Palmer, of the FDEP's Siting Coordination Office, and had FDEP Exhibits 1 and 2 (FDEP Ex.) admitted into evidence. No member of the public appeared at the hearing to offer testimony or other evidence on the Project.

Following the conclusion of the March 23, 2005, hearing, a one-volume Transcript (Tr.) of the hearing was filed on March 29, 2005. The Joint Proposed Recommended Order of PEF, FDEP, and the Southwest Florida Water Management District ("SWFWMD") was timely submitted and has been considered in the rendition of this Recommended Order.

FINDINGS OF FACT

Background

1. Progress Energy Florida, previously known as Florida Power Corporation, is an electric utility that provides electricity in a 35-county service area in Florida. This service area stretches from the Panhandle through the center of the state and includes the western coast of Florida north of Tampa Bay. PEF currently serves approximately 1.5 million customers in this service area. PEF has been providing electric service in Florida for over 100 years. PEF's current generating capacity is 9,174 megawatts. The Company currently operates 14 different power plant facilities in the state. PEF has a customer growth rate of 1.7 percent per year. (Hunter, Tr. 14-15; PEF Ex. 10, Slide 2).

2. The PEF Hines Energy Complex is located in the southwest portion of Polk County, Florida, approximately 3.5 miles south of the city of Bartow. The community of Homeland is located one mile northeast of the Hines site. County Road 555 runs through the Project site. The Hines site contains approximately 8,200 acres of reclaimed phosphate mine lands. The area around the larger Hines site has been dominated by phosphate mining operations, including mines, settling ponds, sand tailings, gypsum stacks, and chemical beneficiation plants. The adjacent land uses consist almost entirely of active

phosphate mining or mined and reclaimed lands. (PEF Ex. 6, Zwolak at 5-6; PEF Ex. RZ-2; PEF Ex. 1 at 2-1).

3. In the late 1980's, PEF began planning to meet the needs of future growth in customer demand for electricity and decided to identify a site that allowed for a wide variety of possible generation technologies, while at the same time meeting the ecological and regulatory requirements for building new generation. PEF solicited the help of a team of local community, educational, and environmental leaders to evaluate over 50 potential sites in Florida and South Georgia. This two-year process culminated in 1991 with the selection of the Hines site, then known as the Polk County site. (PEF Ex. 6, Hunter at 4).

4. In January 1994, the Governor and Cabinet, acting as the Siting Board, certified the Hines Energy Complex for an ultimate site capacity of 3,000 megawatts (MW) of generating capacity fueled by either natural gas, coal gas or fuel oil, and also granted certification for the construction and operation of an initial 470 MW combined cycle unit known as Power Block 1. Power Block 1 began operation in 1999. In 2001, the Siting Board also granted certification for the construction and operation of Hines Power Block 2, a 530 MW combined cycle unit. Power Block 2 began operation in 2003. In 2003, certification was granted by the Siting Board for Power Block 3, which is

currently under construction, and expected to be in service by late 2005. (PEF Ex. 6, Hunter at 5; PEF Ex. 1, Preface at 1-2; FDEP Ex. 2 at 1).

5. The original certification proceeding that culminated in the 1994 certification included extensive evaluations of the worst case capacity constraints and potential environmental effects of the operation of the expected 3,000 MW of capacity. Those evaluations included assessments of air quality impacts, water quality and wildlife impacts, water use, noise impacts, socioeconomic impacts and benefits, traffic impacts of construction and operation, and other impacts of the entire planned capacity of 3,000 MW. This original evaluation significantly reduces the time and expense for processing the Supplemental Site Certification Application and allows PEF to respond more quickly to the growth in demand for electrical generating facilities. The ultimate site capacity determination assures PEF that the Hines Energy Complex site has adequate air, water, and land resources to accommodate additional electrical generating facilities. The 1994 certification also established that the full 3,000 MW of generating capacity and the Hines site are consistent with the local land use plans and zoning regulations of Polk County. (PEF Ex. 1, Pre-1 to Pre-2 at 2.4 to 2.5).

6. The Hines Energy Complex contains a number of existing facilities and is divided into several major areas. The plant island is the location for the existing and future power generation facilities. It is approximately 704 acres. A 722-acre cooling pond, that is being expanded to approximately 1200 acres, has been constructed on the site, along with a 311-acre brine pond. A buffer and mitigation area has been created along the eastern portion of the Hines site containing approximately 2,498 acres. These areas serve as a wildlife corridor as well. Approximately 3500 acres of the site are designated for water crop areas to supply captured rainfall for use in the power plant. (PEF Ex. 6, Hunter at 3; PEF Ex. JJH-4; PEF Ex. 1 at 2-1).

7. The Hines Energy Complex is interconnected to the electrical grid through multiple existing electrical transmission lines. A new 20 mile long 230 kV transmission line to connect the Hines Site to the existing PEF West Lake Wales Substation is being permitted separately. Natural gas is delivered to the Hines Energy Complex by two existing natural gas pipelines, which will serve Power Blocks 1, 2, 3, and 4. Fuel oil is also burned in the existing units and is delivered by truck and stored in an onsite storage tank. A new fuel oil unloading station and a new fuel and storage tank will be added

to serve Power Block 4. (PEF Ex. 6, Hunter at 6, 8; PEF Ex. 1 at 3-1; Tr. 17).

Project Overview

8. The Hines Power Block 4 is a 530 MW combined-cycle power plant to be fueled primarily with natural gas. Fuel oil will be used as a backup fuel. The proposed Power Block 4 will be located entirely within the existing Hines Energy Complex site. The unit will be located west of Power Blocks 1, 2 and 3. All construction activities for Power Block 4 will occur within an approximately 5-acre portion of the plant island. (PEF Ex. 1, at 3-2, 4-1; PEF Ex. 6, Robinson at 5; Exs. JMR 4 and 5).

Need for Power Block 4

9. On November 23, 2004, the FPSC issued a Final Order determining the need for the PEF's Hines Power Block 4 Project. The FPSC determined that the Hines Power Block 4 will be needed by 2007 to maintain electric system reliability and integrity for PEF. This was based upon an evaluation of PEF's load forecast and maintenance of its required 20 percent reserve margin of generating capacity above the firm demand of PEF's customers. Power Block 4 adds to the diversity of PEF's generating assets in terms of technology, fuel, age, and functionality. Operational flexibility is provided by Power Block 4's dual fuel capability. The FPSC also found that the Hines Power Block 4 will contribute to the provision of adequate

electricity at reasonable cost. The FPSC concluded that PEF, in proposing the Hines Power Block 4, had identified the least cost alternative compared to other options, including outside proposals from third parties. There are no cost-effective conservation measures available that might mitigate PEF's need for Hines Power Block 4. In conclusion, the FPSC determined that PEF met the statutory requirements under Section 403.519, Florida Statutes, for the Commission to grant the determination of need for Hines Power Block 4. (PEF Ex. 3).

Project Schedule and Construction

10. The proposed Power Block 4 is similar to the existing Hines Power Blocks 1, 2, and 3, which exist or are currently under construction at the Hines site. The proposed combustion turbines for the new unit are two advanced General Electric 7FA combustion turbines, designed for dual fuel operation.

Engineering of the units will commence in December 2005 and on-site construction will begin no later than the first quarter of 2006. The new unit is proposed to be in service by December 1, 2007. (PEF Ex. 6, Robinson at 4, 13-14).

11. Construction activities will be initiated by the preparation of the five-acre site for construction. This will include mobilization of contractors and subcontractors along with plant construction project management personnel. Existing construction laydown and parking areas will be utilized for

Power Block 4. On-site construction will begin with the installation of the circulating water piping and pilings for structural foundations. Power Block 4 will be mechanically complete by June 2007. (PEF Ex. 6, Robinson at 14).

12. The construction workforce for Power Block 4 is expected to average about 145 employees over the two-year construction period. Peak construction employment is estimated at 350 employees. The construction payroll is expected to be \$15 million annually. Based upon prior experience during construction of Power Blocks 1, 2, and 3, it is expected that most construction workers will be drawn from the Polk County and Central Florida areas. Construction employees are expected to commute daily to the job site. Traffic improvements have already been made in the vicinity of the Hines Energy Complex. Traffic impacts related to construction of Power Block 4 will not require additional road improvements. (PEF Ex. 1 at 4-16 to 4-17).

13. No new roads will be required to support construction of Power Block 4 as the existing plant access road will be used during construction. Major project components will be delivered to the Hines site by rail or by truck. No off-site upgrade of rail or road facilities is expected to be necessary. All oversized deliveries will receive necessary Florida Department

of Transportation ("DOT") approvals. (PEF Ex. 1 at 3-20, 4-3; PEF Ex. 6, Robinson at 14-15).

14. Most major earthwork activities for construction for the Power Block 4 construction area were performed during initial site development activities that were completed in 1996. There are no expected impacts to land in the Project area except for minor grading, installation of foundation systems and infrastructure piping, the new control/administration building, and the new fuel oil tank. (PEF Ex. 1 at 4-1).

15. Heavily loaded and structural foundation loads such as the heat recovery steam generators, combustion turbines, steam turbines, and step-up transformers will be supported by deep foundations. These foundations will include deep foundations such as pilings similar to those used for Power Blocks 1, 2, and 3. Lightly loaded foundations will use spread foundations. Construction dewatering will occur primarily at excavations for the circulating water intake structure and the discharge head wall in the cooling pond. Other additional limited dewatering may occur, depending upon the amount of rainfall and the depth of other excavations onsite. Dewatering would be performed using well points or open pit sump pumps, which have a very localized impact area. Dewatering effluent will be routed to the existing on-site stormwater collection ditches for return to

the existing cooling pond. (PEF Ex. 6, Robinson at 12-13; PEF Ex. 1 at 4-7).

16. The entire Project area is outside the 100-year flood zone. There will be no construction impacts to either on-site or off-site water bodies or wetlands as a result of construction activities. (PEF Ex. 1 at 2-2, 4-5).

17. On-site construction activities will not have any measureable adverse ecological impacts. The five-acre Project area has already been cleared and graded in anticipation of construction of Power Block 4 and other future units. The Power Block 4 area is primarily bare soil, with very sparse weedy vegetation of low-ecological functional value. This habitat is suitable for few animals and exhibits low plant species diversity. It will not support populations of threatened and endangered species or species of special concern. There are no jurisdictional or non-jurisdictional wetlands that would be impacted by the development of Power Block 4 and the on-site portion of the new transmission line. Mitigation for wetland impacts on the Hines Energy Complex occurred as part of the original permitting process for the Hines Energy Complex. (PEF Ex. 6, Bullock at 5-6; PEF Ex. 1 at 4-10 to 4-12).

18. Construction noise impacts from construction of all phases up to the 3,000 MWS of ultimate site capacity were analyzed as part of the 1992 certification application. It was

shown at that time that the applicable noise criteria would be complied with during construction of each future phase. An updated analysis of construction noise from Power Block 4 reaffirmed the earlier analysis and demonstrated no adverse impacts from construction noise. The nearest residences are approximately 2.9 miles from the plant site. The Project construction noise levels will be less than the existing noise levels measured near these residences. Construction noise will have an insignificant effect on noise levels. (PEF Ex. 6, Osbourn at 15-16; PEF Ex 1 at 4-17 to 4-19).

19. During construction, the most prevalent construction air emissions will be fugitive dust, generated by site grading, excavation, vehicular traffic, and other construction activities. Dust control measures will be used and will typically require moisture conditioning of construction areas and roadways. Disturbed areas will also be stabilized by mulching or seeding as soon as practical. Crushed rock may also be used in high traffic areas. It is not expected that these air emissions from construction will present any significant air quality problems during the construction period. (PEF Ex. 1 at 4-14 to 4-16).

Project Description

20. Power Block 4 will be similar to the existing Power Blocks 1, 2, and 3 at the Hines site. Power Block 4 is a new

combined cycle unit of approximately 530 MWs. It will consist of two advanced GE 7 FA combustion turbines ("CT") designed for dual fuel operation, using primarily natural gas and low sulfur fuel oil as a backup fuel. Each CT will connect to an electrical generator, capable of generating approximately 170 MWs of electricity. Each CT in Power Block 4 will be paired with a heat recovery steam generator ("HRSG") which will extract heat energy from the CT's exhaust gas. The HRSG is essentially a boiler that turns heat in the CT's exhaust, which would be otherwise wasted, into steam. The steam produced in both HRSGs is used to drive a single steam turbine, which will produce an additional 190 MWs of electricity. (PEF Ex. 6, Robinson at 4 to 5; PEF Ex. JMR-2; FDEP Ex. 2 at 1-10).

21. The normal operating mode for Power Block 4 will be for both CTs to be in operation providing steam from their respective HRSGs to the single steam turbine. However, Power Block 4 can be operated in other ways, depending on the need for electricity. One CT can be operated at full load, producing steam from its HRSG that would power the steam turbine at half load while the other CT and HRSG are idle. The unit will be operated between 30 percent load and full load in the combined cycle mode while meeting its air emission permit requirements. (PEF Ex. 6, Robinson at 4-5).

22. Natural gas will be the principal fuel used in Power Block 4. Gas will be delivered by two existing gas pipelines that serve the Hines Energy Complex. A new on-site gas pipeline will be constructed to supply natural gas to the new Power Block 4 from the two on-site natural gas meter regulation stations. Fuel oil will be delivered by truck to a new fuel unloading facilities and stored in a new on-site fuel storage tank adjacent to Power Block 4. (PEF Ex. 1 at 3-4; Tr. 27).

23. The existing on-site electrical switchyard will be expanded to provide electrical transmission interconnection for Power Block 4. The on-site segment of a new 230 kV transmission line between the Hines Site and the PEF West Lake Wales electrical substation is included in the project for certification. (PEF Ex. 6, Robinson at 6; Tr. 17).

24. Pursuant to the authorization under the 1994 site certification, a 10,000 gallon per day domestic wastewater treatment plant will treat additional on-site domestic and sanitary wastewaters from on-site showers, lavatories, toilets, and drinking fountains for Power Block 4. The treated effluent is directed to the on-site cooling pond as makeup water. Potable water is provided from an existing on-site approved potable water system which is adequate to support Power Blocks 1, 2, 3, and 4. Potable water is supplied from well water and is treated and chlorinated for on-site uses such as drinking,

washing, showers, and other uses. A new on-site water distribution line will be installed to support Power Block 4 and the new control and administration building. (PEF Ex. 6, Robinson at 12; PEF Ex. 1 at 3-11 to 3-12).

25. Solid wastes that may be generated by Power Block 4 include circulating water systems screenings, sanitary waste solids, water treatment filter backwash solids, and solid wastes produced in the course of operating and maintaining the unit. Office wastes are expected to be the biggest component of these wastes. These wastes will be disposed of in differing ways. Circulating water systems screenings and water filter backwash will be recycled on-site to the extent possible. All other solid wastes will be disposed of off-site in appropriate facilities. PEF has a corporate commitment to waste minimization. This includes extensive recycling of waste products, reduction at the source, and elimination of most hazardous waste storage. This corporate commitment will be implemented on a continuing basis at the Hines Energy Complex. (PEF Ex. 6, Robinson at 12; PEF Ex. 1 at 3-18).

Water Use and Supply

26. The existing cooling pond will supply cooling water and other water needs for Power Block 4. Makeup water to the cooling pond is obtained from direct precipitation, reclaimed treated municipal effluent, on-site stormwater runoff, recycled

plant blowdown and wastewaters, water cropping, and groundwater. (PEF Ex. 1 at 3-7 to 3-9).

27. The process steam in the steam turbine is cooled to the liquid state in a steam condenser. The rejected heat from the steam is transferred to water pumped from the existing cooling pond into the circulating water system and then returned to the cooling pond. The heat rejected from the power plant results in forced evaporation above and beyond the natural evaporation that occurs in the cooling pond. The circulating water system equipment for Power Block 4 will include two new circulating water pumps capable of pumping 60,000 gallons per minute. An additional intake structure will be constructed at the cooling pond to support these pumps. (PEF Ex. 6, Robinson at 7-8; PEF Ex. 1 at 3-9 to 3-10).

28. All process water needs for Power Block 4 will be supplied from the existing cooling pond. Water is pumped from the pond to the water treatment area located east of the existing power blocks. The water is processed for use either as service water or as demineralized water. Service water is used for washdown of equipment and other uses. The higher quality demineralized water is used for makeup to the steam-condensate-feedwater cycle in the HRSGs to replace steam cycle losses. Demineralized water is also used when firing low sulfur fuel oil

in the CTs to control NO_x emissions. (PEF Ex. 6, Robinson at 8-9, Osbourn at 7; PEF Ex. 1 at 3-12 to 3-13).

29. The reverse osmosis equipment in the demineralized water system produces a brine reject that will be pumped to the existing on-site brine pond for evaporation. The only other wastewater streams from Power Block 4 will come from the boiler blowdown and from floor drains located throughout the facility. Boiler blowdown results from removal of a portion of the water cycling in the HRSG to control the buildup of solids in that water. Boiler blowdown is collected and pumped back to the cooling pond without further treatment. Areas that contain lubricating oil equipment or where fuel lines run above ground will have containment curbs or walls. Wastewater streams from these areas that may contain oil will be routed to the existing oil water separator to remove oil contamination prior to being pumped to the cooling pond. Any collected oil is properly disposed. All wastewaters are collected and processed as appropriate and pumped back to the cooling pond. The cooling pond has no discharge to area surface waters. (PEF Ex. 6, Robinson at 9-10; PEF Ex. 1 at 3-12 to 3-16; FDEP Ex. 2 at 13).

30. The cooling pond at the Hines Energy Complex experiences both natural and forced evaporation. The forced evaporation is that additional evaporation above and beyond natural evaporation and is caused by the heat rejected from the

power plant. The total annual average evaporation rate from the cooling pond from natural evaporation and from heat rejected by Power Blocks 1, 2, 3 and the proposed Power Block 4 is approximately 10 million gallons per day. This is an increase in evaporation of 2.2 million gallons per day for Power Block 4. This loss of water needs to be replenished to keep the cooling pond operating and keep the plant continuing in operation. (PEF Ex. 6, Robinson at 7-8; PEF Ex. 1 at 3-9).

31. It has been determined that, over the long term, Power Block 4 will require an average annual daily water supply of 2.4 million gallons per day. This is needed to replace evaporation from the pond and to supply the process water needs for the new unit. (PEF Ex. 1 at 3-8). The existing Conditions of Certification for the Hines Energy Complex authorize the use of up to 17.5 million gallons per day of groundwater beginning with the third generating unit at the Hines Energy Complex. The water needs for Power Block 4 will be supplied from these previously approved quantities of groundwater. The existing Units 1 and 2 utilize a mix of treated wastewater from on-site and off-site sources and captured rainfall to supply cooling and process water needs for Power Blocks 1 and 2. (PEF Ex. 1 at 3-7 to 3-9; PEF Ex. 6, Hunter at 7; FDEP Ex. 2, Appendix IV, SWFWMD Agency Report at 7).

32. Under the Conditions of Certification, no groundwater will be withdrawn to supplement the cooling pond until the operating level in the cooling pond falls to 160 feet. The proposed on-site withdrawals were previously evaluated as part of the initial certification proceeding in 1994 and were found to have no adverse impacts. The proposed on-site withdrawals of groundwater for Power Block 4 will not have any adverse impacts on existing legal users of water in the vicinity of the Project, on- and off-site wetlands, or to off-site land uses. PEF has investigated other reasonably obtainable sources of water in the region and found none that could meet the needs for Power Block 4. (PEF Ex. 1, Vol. 2, Appendix 10.6; FDEP Ex. 2, App. IV, SWFWMD Agency Report at 8-9).

33. PEF has undertaken several efforts to minimize the use of groundwater through the use of water conservation practices, as required by the Conditions of Certification in the 1994 site certification. These measures include the use of water conserving electric generation technologies, recycling of all wastewater streams, and the design of the power plant as a "zero discharge" facility. PEF is also continuing to investigate other sources of water supply for the Hines site. (FDEP Ex. 2, App. IV, SWFWMD Agency Report at 8).

34. Power Blocks 1 and 2 are supplied water from the on-site water cropping system and on-site and off-site treated

wastewaters. The capture and reuse of rainfall is an integrated part of PEF's efforts to reduce dependence on the Upper Floridan aquifer as a source of water. In addition, recycled plant wastewaters, treated wastewater from the City of Bartow, and nearby industrial and power plants are the other primary sources of water for Hines Power Blocks 1 and 2. The City of Bartow currently provides approximately 2.0 million gallons per day of treated wastewater for use at the Hines Energy Complex. (PEF Ex. 1, Hunter at 7; FDEP Ex. 2, App. IV, SWFWMD Agency Report at 6-8).

Air Emissions

35. The primary air pollutants emitted from Hines Power Block 4 will include nitrogen oxides ("NO_x"), carbon monoxide ("CO"), particulate matter ("PM"), and sulfur oxides such as sulfur dioxide. The primary cause of the air emissions from the new unit will be the combustion of natural gas and distillate oil in the CTs. Emissions of NO_x and CO will result from the combustion process. Emissions of PM and sulfur dioxide result from trace impurities in the fuel itself. (PEF Ex. 6, Osbourn at 4-5; Tr. 35-37).

36. Air emissions from Power Block 4 will be minimized through the inherent efficiency of the combined cycle technology, as well as the use of natural gas and light oil, use of combustion controls, and use of post-combustion control

technology for nitrogen oxide emissions. Natural gas is the cleanest of fossil fuels and contains minimal amounts of impurities. Light oil is also very low in impurities and its use will be limited to up to 1,000 hours per year per combustion turbine. Natural gas and light oil burn very efficiently, thus minimizing the formation of air pollutants. Emissions are also minimized through the use of advanced combustion control technology in the combustion turbine, specifically dry, low NO_x combustion controls for firing natural gas, and use of water injection when firing light oil. A post-combustion control technology, selective catalytic reduction ("SCR") will be used to further reduce NO_x emissions from Power Block 4. (PEF Ex. 6, Osbourn at 5-6; Tr. 35).

37. The Hines Power Block 4 is required to meet best available control technology ("BACT") requirements, which limits air pollution emission rates. The Project must also comply with ambient air quality standards ("AAQS") and prevention of significant deterioration ("PSD") increment standards, which establish levels of air quality which must be met. (PEF Ex. 6, Osbourn at 6-7; PEF Ex. 1 at 3.5 to 3-6; FDEP Ex. 2 at 6, 17).

38. Hines Power Block 4 is required to undergo PSD review because it is a new source of air pollution that will emit some air pollutants above the threshold amounts established under the PSD program. PSD review was required for air emissions of PM,

sulfur dioxide, NO_x, CO, and sulfuric acid mist because these emissions are greater than the established PSD thresholds. (PEF Ex. 6, Osbourn at 7).

39. The BACT analysis for Hines Power Block 4 is part of the evaluation of air emissions control technology under the PSD regulations and is applicable to all pollutants for which PSD review is required. BACT is a pollutant-specific emission standard that provides the maximum degree of emission reduction, after taking into account the energy, environmental, and economic impacts and other costs. (PEF Ex. 6, Osbourn at 6-7; FDEP Ex. 2 at 6).

40. For NO_x, FDEP has preliminarily determined for this facility a BACT emission limit of 2.5 parts per million when firing natural gas, and 10 parts per million when firing low sulfur fuel oil. These emission levels will be achieved by the use of dry low NO_x combustion technology when firing natural gas, use of water injection when firing fuel oil, and use of SCR technology. (PEF Ex. 6, Osbourn at 8; FDEP Ex. 2 at 9, 21, Table 4).

41. Emissions of carbon monoxide will be controlled using good combustion techniques. Sulfur dioxide emissions, including sulfuric acid mist, will be controlled through the use of clean fuels. Particulate matter emissions will be controlled through the use of clean fuels, natural gas, and low sulfur fuel oil.

Fuel oil firing will be limited to a maximum of about 1,000 hours per year. (PEF Ex. 6, Osbourn at 7-9; PEF Ex. 10, Slide 15; Tr. 36-37).

42. The air emissions from Power Block 4 cannot be permitted at a level that would cause or contribute to a violation of federal and state AAQS for the six criteria air pollutants or PSD increments for sulfur dioxide, NO_x, and PM. The PSD increments refer to the amount of incremental air quality deterioration allowed from a new air pollution source. Polk County is classified as a Class II area for PSD purposes. The nearest Class I PSD area within which limited increases in air pollutant concentrations are allowed is the Chassahowitzka National Wilderness Area. (PEF Ex. 6, Osbourn at 9-11; FDEP Ex. 2 at 6-8, 16-17).

43. Air emissions from Power Block 4 were principally analyzed for emissions from fuel oil firing as representing the maximum air quality impact. The air quality impact analysis was performed using approved air quality models and five years of historical hourly meteorological data. This analysis indicated that Power Block 4 will not cause any violations of federal or state AAQS and will comply with applicable PSD Class II and Class I increments. The maximum impact of the Project was estimated to be well below the applicable PSD Class II increments. Maximum ambient air impacts were also estimated to

be well below the applicable AAQS. Using worst case air emissions during oil firing, it was shown that the Project impacts would be less than the PSD Class I increments, as well as less than the Class I significant impact levels, and therefore were concluded not to be significant in the PSD Class I area. (PEF Ex. 6, Osbourn at 8-14, Exs. SO-3 and SO-4; FDEP Ex. 2 at 7-8, 16-17).

44. Air emissions from Power Block 4 are not expected to have any impact on vegetation or to cause any growth-related air quality impacts. The results of the visibility impact analysis of the Project's emissions in the nearest PSD Class I area demonstrated no adverse impact on visibility at that location due to Power Block 4. (PEF Ex. 6, Osbourn at 14-15; FDEP Ex. 2 at 6-7, 17).

Noise

45. Noise impacts during operation of Power Block 4 were shown not to be significant. Noise monitoring was originally conducted at various locations around the Hines Energy Complex site prior to construction and operation of Power Block 1. Additional noise monitoring was conducted at these locations in 2000 and 2004 during the permitting of Power Blocks 2 and 4, to determine any changes since the original permitting. There are only a few isolated rural residences in the land area surrounding the site. The nearest residence is about 2.5 miles

from the proposed Power Block 4. Industrial activities in the surrounding area result in considerable traffic on nearby roads, causing noise levels to exceed the EPA guideline of 55 dBA. Without the area traffic, ambient noise levels meet the EPA guidelines. (PEF Ex. 1 at 2-65 to 2-72). Using a conservative approach which tends to overstate the Project impacts, noise impacts due to operation of Power Block 4 would increase by less than 2 dBA at the nearest receptor and will not be significant. Therefore, the Project will meet applicable noise criteria and no significant noise impacts will occur as a result of the Project. (PEF Ex. 6, Osbourn at 15-16; PEF Ex. 10, Slide 23; PEF Ex. 1 at 5-9 to 5-12).

Land Use and Socioeconomic Impacts

46. The Plant Island, where Power Block 1 is in operation and where Power Block 4 will be constructed, is located near the southern end of the site. The northern boundary of the Plant Island is about two miles south of CR 640. The western limit of the City of Fort Meade is about 3.9 miles east of the Plant Island, and the unincorporated community of Homeland is more than 3.5 miles northeast of the Plant Island. The nearest residential use is three homes located approximately 2.5 miles from the southern boundary of the Plant Island. Otherwise, the entire area surrounding the proposed power plant site consists of existing or former phosphate mines. The site is buffered

from surrounding populations at Homeland and Fort Meade by an extensive buffer area on the eastern perimeter of the site. There has been almost no change in land use and very little change in the landscape in the area of the Hines Energy Complex since the original site certification. (PEF Ex. 6, Zwolak at 5-6).

47. There have not been any changes in the area surrounding the Hines Energy Complex that would change the land use and socio-economic conclusions reached in the Final Order of Certification issued for the site by the Siting Board on January 27, 1994. The most significant change has been the completion of another nearby power plant approximately three miles southeast of the Hines site. (PEF Ex. 6, Zwolak at 6).

48. No land use or socio-economic impacts will be associated with construction of Power Block 4 that were not previously addressed in the Final Order of Certification for the Hines Energy Complex in 1994. (PEF Ex. 6, Zwolak at 6-8).

49. The land use impacts from development and construction of Power Block 4 will be quite minimal, and the economic benefits will be substantial. Current operating employment at the Hines Energy Complex is 29. The staffing level at the plant is expected to increase by six employees with the addition of Power Block 4. Annual payroll was \$2.7 million in 2002. The

annual payroll will increase by about \$493,000 when Power Block 4 becomes operational in 2007. (PEF Ex. 6, Zwolak at 8).

50. The estimated increase in property taxes for Power Block 4 is \$5.0 million. Over one-half of this revenue goes to support the Polk County school system. (PEF Ex. 6, Zwolak at 8; PEF Ex. 1 at 7-1).

Agency Positions and Stipulations

51. The FDEP, the Florida Department of Community Affairs, the FDOT, and the SWFWMD each prepared written reports on the Project. (FDEP Ex. 2). Each of these agencies either recommended approval of Hines Power Block 4 or otherwise did not object to certification of the proposed power plant. The FDEP has proposed a series of Conditions of Certification for the Project that incorporate the recommendations of the various reviewing agencies. At hearing, the FDEP added one additional condition related to air emissions monitoring. (Tr. 54-55). PEF states that it can comply with these Conditions of Certification in the design, construction, and operation of the Hines Power Block 4. (Tr. 21, 56). No state, regional, or local agency has recommended denial of certification of the Project or has otherwise objected to certification of the Project. (PEF Ex. 4).

52. Subject to compliance with the proposed conditions of certification, the proposed design of Hines Power Block 4 offers

reasonable assurance that the standards of the FDEP and other affected regulatory agencies will be met and that the operation safeguards are technically sufficient for the protection of the citizens of the state. The Hines Power Block 4, as proposed, minimizes through reasonable and available methods the adverse effects on human health, the environment, the ecology of the land and its wildlife, and the ecology of state waters and their aquatic life. (FDEP Ex. 1 at 28; Tr. 57-59).

CONCLUSIONS OF LAW

53. The Division of Administrative Hearings has jurisdiction over the parties to and the subject matter of this proceeding. §§ 120.569, and 120.57(1), 403.508(3), Fla. Stat.

54. This proceeding was conducted to implement the purposes and intent of the Florida Electrical Power Plant Site Certification process. The purposes of that process are to assure the citizens of Florida that the construction and operation safeguards of the PEF Hines Power Block 4 Project are technically sufficient to protect their health and welfare and to effect a reasonable balance between the need for the Project and the environmental impacts on air and water quality, fish and wildlife, and the water resources and other resources of the State resulting from the Project's construction and operation. § 403.502(1)-(2), Fla. Stat.

55. In accordance with Chapters 120 and 403, Florida Statutes, and Florida Administrative Code Chapter 62-17, proper public notice was accorded all persons, entities, and parties entitled thereto. All the necessary and required governmental agencies were parties to this proceeding or were otherwise afforded adequate opportunity to participate in this proceeding. All required reports by State, regional, and local agencies were completed and presented.

56. The FPSC, in an Order dated November 23, 2004, has determined a need exists for the 530 MW (nominal) of electrical generating capacity to be supplied by the Project, pursuant to the requirements of Section 403.519, Florida Statutes.

57. The Governor and Cabinet of the State of Florida, sitting as the Siting Board, determined in an order dated January 26, 1993, that the Hines Energy Complex site is consistent with the existing land use plans and zoning ordinances of Polk County, pursuant to the procedures set out in Section 403.508(1) and (2), Florida Statutes. The addition of Power Block 4 will not expand the existing boundaries of the Hines Energy Center or introduce a new fuel not previously certified for the Hines Energy Complex. Further consideration of consistency with local land use plans and zoning ordinances is not required for this Supplemental Site Certification Application, pursuant to Section 403.517(3), Florida Statutes.

58. The FDEP and the other participating agencies have all recommended or otherwise do not object to certification of the Hines Power Block 4 for construction and operation, subject to this Recommended Order and to the Conditions of Certification recommended by FDEP. (FDEP Ex. 2). PEF has indicated its acceptance of these proposed conditions of certification. As a result, none of the parties to this proceeding oppose certification of the Hines Power Block 4.

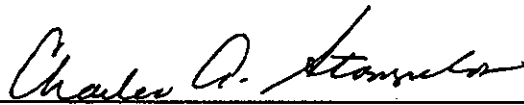
59. Based upon a preponderance of the evidence presented at the certification hearing held on March 23, 2005, PEF has met its burden of proving that the Hines Power Block 4 Project should be certified as proposed. Competent, substantial evidence presented at the hearing demonstrates that the construction and operational safeguards for the Hines Power Block 4 Project are technically sufficient to protect the health and welfare of the citizens of Florida and are reasonable and available methods to achieve that protection. If constructed, maintained, and operated in accordance with this Recommended Order and the FDEP's proposed Conditions of Certification, the proposed Project will produce minimal adverse effects on human health, the environment, the ecology of the land and its wildlife, and ecology of state waters and their aquatic life. Certification of the Project is consistent with the statutory goal of the Florida Electrical Power Plant Siting Act of

providing abundant, low cost electrical energy, and certification will affect a reasonable balance between the environmental and other impacts which might occur and the need for the Project as separately determined by the FPSC.

RECOMMENDATION

Based on the foregoing Findings of Fact and Conclusions of Law, it is RECOMMENDED that the Governor and Cabinet, sitting as the Siting Board, enter a Final Order granting certification to PEF to construct and operate a new 530 MW natural gas-fired electrical power plant (Hines Power Block 4 Project) in Polk County, Florida, in accordance with the Conditions of Certification, FDEP Exhibit 2.

DONE AND ENTERED this 5th day of April, 2005, in Tallahassee, Leon County, Florida.



CHARLES A. STAMPELOS
Administrative Law Judge
Division of Administrative Hearings
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NOTICE OF RIGHT TO SUBMIT EXCEPTIONS

All parties have the right to submit written exceptions within 15 days from the date of this Recommended Order. Any exceptions to this Recommended Order should be filed with the agency that will issue the Final Order in this case.

APR - 6 1965

CONDITIONS OF CERTIFICATON
SUPPLEMENTAL APPLICATION PA 92-33SA3
PROGRESS ENERGY FLORIDA-HINES ENERGY COMPLEX-POWER BLOCK 4

State of Florida
Department of Environmental Protection
Hines Energy Complex: Power Blocks 1, 2, 3, and 4
PA 92-33

Conditions of Certification

March 23, 2005

I. GENERAL

A. Definitions

The meaning of the terms herein shall be governed by the definitions contained in Chapters 403, 378, 373, 372, and 253, Florida Statutes (F.S.), and any regulation adopted pursuant thereto and the statutes and regulations of any agency. In the event of any dispute over meaning of a term used in these conditions which is not defined in such statutes or regulations, such dispute shall be resolved by reference to the most relevant definitions contained in any other state or federal statute or regulation or, in the alternative, by the use of the commonly accepted meaning as determined by the Department. As used herein:

1. "Application" shall mean the Site Certification Applications (SCA) for the Polk County Site/Hines Energy Complex Power Blocks, as supplemented.
2. "DEP" shall mean the Florida Department of Environmental Protection.
3. "DHR" shall mean the Florida Department of State, Division of Historical Resources.
4. "Emergency conditions" shall mean urgent circumstances involving potential adverse consequences to human life or property as a result of weather conditions or other calamity, and necessitating new or replacement power plant, fuel facilities, gas pipeline, reclaimed water pipeline, transmission lines, or access facilities.
5. "Feasible" or "practicable" shall mean reasonably achievable considering a balance of land use impacts, environmental impacts, engineering constraints, and costs.
6. "FFWCC" shall mean the Florida Fish and Wildlife Conservation Commission.
7. "Permittee" shall mean Progress Energy Florida (PEF) [formerly Florida

Power Corporation (FPC)].

8. "Power plant" shall mean the electric power generating equipment and appurtenances to be constructed on the Hines Energy Complex Site in Polk County, as generally depicted in the Applications.

9. "Project" shall mean the Hines Energy Complex and all associated facilities, including: the power plant, gas pipeline, transmission lines and related facilities; and the cooling reservoir and related facilities.

10. "SWFWMD" shall mean the Southwest Florida Water Management District.

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

B. Applicable Rules

The construction and operation of the Hines Energy Complex shall be in accordance with all applicable provisions of at least the following regulations of DEP: Chapters 62-4, 62-17, 62-814, 62-256, 62-296, 62-297, 62-301, 62-302, 62-531, 62-532, 62-550, 62-555, 62-560, 62-600, 62-601, 62-604, 62-610, 62-620, 62-621, 62-650, 62-699, 62-660, 62-701, 62-762, 62-767, 62-769, 62-770, 62-814, and 62-25, Florida Administrative Code (F.A.C.), or their successors as they are renumbered.

II. CHANGE IN DISCHARGE

All discharges or emissions authorized herein shall be consistent with the terms and conditions of this certification. The discharge of any regulated pollutant not identified in the application, or more frequently than, or at a level in excess of that authorized herein, shall constitute a violation of the certification. Any anticipated facility expansions beyond the certified nameplate capacity of 1530 MW, production increases, or process modifications which may result in new, different, or increased discharges of pollutants, change in type of fuel as described in XIII.A. or expansion in electric generation capacity shall be reported by submission of a new or supplemental application pursuant to Chapter 403, F.S.

III. GENERAL CONDITIONS

A. Facilities Operation

1. PEF shall at all times maintain in good working order and operate as efficiently as possible all treatment or control facilities or systems installed or used by PEF to achieve compliance with the terms and conditions of this certification. In the event of a

malfunction of an electric generating unit's pollution control system which will result in non-compliance with the provisions of this Certification or applicable Department rules, either all or a portion of that unit's load shall be shifted to other units within the Progress Energy Florida system, as necessary to maintain compliance with applicable state and federal regulations.

2. In the event of a prolonged [thirty (30) days or more] equipment malfunction or shutdown of air pollution control equipment during plant operation, operation may be allowed to resume and continue to take place under an appropriate Department order, provided that PEF demonstrates that such operation will be in compliance with all applicable ambient air quality standards and PSD increments, solid waste rules, domestic waste rules and industrial waste rules. During such malfunction or shutdown, the operation of the Hines Energy Complex shall comply with all other requirements of this certification and all applicable state and federal emission standards not affected by the malfunction or shutdown which is the subject of the Department's order. Operational stoppages exceeding two hours for air pollution control systems or four hours for other systems or operational malfunctions as defined in the operational contingency plans as specified in Conditions XIII.B.4 and XIII.C.4 are to be reported as specified in Condition III.B. Identified operational malfunctions which do not stop operation but do compromise the integrity of the operation shall be reported to the Southwest District office as specified in Condition III.B.

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

B. Noncompliance Notification

If, for any reason, PEF (defined as the Applicant or its successors and/or assigns) does not comply with or will be unable to comply with any limitation specified in this certification, PEF shall notify the Southwest District office of the Department of Environmental Protection by telephone within a working day that said noncompliance occurs and shall confirm this in writing at 3804 Coconut Palm Drive, Tampa, Florida 33619-8318 within seventy-two (72) hours of becoming aware of such conditions, and shall supply the following information:

1. A description of any discharge and cause of noncompliance; and,
2. The period of noncompliance, including exact dates and times; or if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate and prevent recurrence of the noncomplying event.

C. Safety

The overall design, layout, and operation of the facilities shall be such as to minimize hazards to humans and the environment. Security control measures shall be utilized to prevent exposure of the public to hazardous conditions. The federal Occupational Safety and Health Standards will be complied with during construction and operation. The Safety Standards specified under Section 440.56, F.S., by the Industrial Safety Section of the Florida Department of Commerce will also be complied with.

D. Enforcement

1. The Department may take any and all lawful actions as it deems appropriate to enforce any condition of this certification.
2. Any participating agency party (federal, state, local) may take any and all lawful actions to enforce any condition of this certification that is based on the rules of that agency. Prior to initiating such action the agency head shall notify the Secretary of that agency's proposed action.

E. Design and Performance Criteria

Subject to the following conditions, individual generating units at the power plant may be operated at up to 120 percent of the maximum electrical output at ISO conditions projected from design information without the need for modifying these conditions. Treatment or control facilities or systems installed or used to achieve compliance with the terms and conditions of this certification are not to be bypassed without prior DEP approval.

F. Certification

1. The terms, conditions, requirements, limitations and restrictions set forth in these conditions of certification are binding and enforceable pursuant to Sections 403.141, 403.161, 403.514, 403.727, or 403.859 through 403.861, F.S. PEF is placed on notice that the Department will review this approval periodically and may initiate enforcement action for any violation of these conditions.
2. This approval is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this approval may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Subsections 403.087(6), 403.511, and 403.722(5), F.S., the issuance of this approval does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations. This approval is not a waiver of

or approval of any other Department approval that may be required for other aspects of the total project under federally delegated programs which are not addressed in this certification.

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

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

6. PEF agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided, however, PC does not waive any other rights granted by Florida Statutes or Department rules.

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

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

9. PEF shall comply with the following:

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

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

c. Records of monitoring information shall include:

- measurements;
- measurements;
- (1) the date, exact places, and time of sampling or
 - (2) the person responsible for performing the sampling or
 - (3) the date's analyses were performed;
 - (4) the person responsible for performing the analyses;
 - (5) the analytical techniques or methods used; and,
 - (6) the results of such analyses.

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

G. Laboratories and Quality Assurance

1. PEF shall ensure that all laboratory analytical data submitted to the Department, as required by this permit, must be from a laboratory which has a currently valid and Department approved comprehensive Quality Assurance Plan (QAP) [or a QAP pending approval] for all parameters being reported, as required by Chapter 62-160, F.A.C.

2. When a contract laboratory is used to analyze samples required pursuant to this permit, PEF is required to have the samples taken by qualified personnel following U.S. Environmental Protection Agency (EPA) and Department approved sampling procedures and chain-of-custody requirements. All chain-of-custody records must be retained by the contract laboratory for at least three (3) years and made available to the Department immediately upon request.

3. When an in-house laboratory is used to analyze samples required pursuant to this permit, PEF is required to have the samples taken by a qualified technician following EPA and Department approved sampling procedures and chain-of-custody requirements. All chain-of-custody records must be retained on-site for at least three (3) years and made available to the Department immediately upon request.

H. Post-Certification Submittals

1. Purpose of Submittals

Conditions of certification which provide for the post-certification submittal of information to

DEP by PEF are for the purpose of facilitating DEP's monitoring of the effects arising from the location of the pipeline ROWs, transmission line ROW and the construction and maintenance of the transmission line and plant site. This monitoring is for DEP to assure, in consultation with other agencies with applicable regulatory jurisdiction, continued compliance with the conditions of certification without any further agency action.

2. Filings

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

3. Completeness

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

4. Interagency Meetings

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

5. Reasonable Assurance of Compliance

Within 90 days of the filing of a complete post-certification submittal, DEP shall give written notification to PEF and the agencies to which the post-certification information was submitted of its determination whether there is reasonable assurance of compliance with the conditions of certification. If it is determined that reasonable assurance has not been provided, PEF shall be notified with particularity and possible corrective measures suggested. Failure to notify PEF in writing within 90 days of receipt of a complete post-certification submittal shall constitute a compliance determination.

6. Commencement of Construction

If DEP does not object within the time period specified in paragraph 5, above, PEF may begin construction pursuant to the terms of the conditions of certification and the subsequently submitted construction details.

IV. ADVERSE IMPACT

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

V. RIGHT OF ENTRY

PEF shall allow during operational or business hours authorized representatives of the Florida Department of Environmental Protection and representatives of the SWFWMD and Polk County upon the presentation of credentials:

- A. To enter upon PEF's premises where an effluent source is located or in which records are required to be kept under the terms and conditions of this certification;
- B. To have access during normal business hours (Monday - Friday, 9:00 a.m. to 5:00 p.m.) to any records required to be kept under the conditions of this certification for examination and copying;
- C. To inspect and test any monitoring equipment or monitoring method required in this certification and to sample any discharge or pollutants, or monitor any substances or parameters at any location reasonably necessary to assure compliance with this certification or Department rules;
- D. To assess any damage to the environment or violation of ambient standards; and,
- E. Reasonable time may depend on the nature of the concern being investigated.

VI. REVOCATION OR SUSPENSION

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

VII. CIVIL AND CRIMINAL LIABILITY

This certification does not relieve PEF from civil or criminal penalties for noncompliance with any conditions of this certification, applicable rules or regulations of the Department or Chapter 403, F.S., or regulations there under. Subject to Section 403.511, F.S., this certification shall not

preclude the institution of any legal action or relieve PEF from any responsibilities or penalties established pursuant to any other applicable statutes, or regulations.

VIII. PROPERTY RIGHTS

The issuance of this certification does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to public or private property or any invasion of personal rights nor any infringement of federal, state or local laws or regulations. This certification conveys no title to land or water, does not constitute state recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the state. Only the Trustees of the Internal Improvement Trust Fund may express state opinion as to title.

IX. SEVERABILITY

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

X. REVIEW OF SITE CERTIFICATION

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

XI. MODIFICATION OF CONDITIONS

The conditions of this Certification may be modified in the following manner:

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

B. This certification shall be automatically modified to conform to any subsequent amendments, modifications, or renewals made by DEP to any separately issued Prevention of Significant Deterioration (PSD) permit, Title V Air Permit, or National Pollutant Discharge Elimination System (NPDES) permit for the facility under the federally delegated program. PEF shall send each party to the original certification proceedings (at the party's last known address as shown in the record of such proceeding) notice of requests for modifications or renewals to the NPDES permit if the request involves a relief mechanism (e.g., mixing zone, variance, etc.) from standards. DEP shall notify all parties to the certification proceeding of any intent to modify conditions under this section prior to taking final agency action.

C. All other modifications to these conditions shall be made in accordance with Section 403.516, F.S.

XII. CONSTRUCTION

A. Standards and Review of Plans

1. The facility shall be constructed pursuant to the design standards presented in the application and the standards or plans and drawings submitted signed by an engineer registered in the State of Florida. The Applicant shall present specific facility plans, as developed, for review by the Southwest District office at least 120 days prior to construction of those portions of the facility for which the plans are then being submitted, unless other time limits are specified in the following conditions herein. Specific Southwest District office acceptance of plans will be required based upon a determination of consistency with approved design concepts, regulations and these Conditions prior to initiation of construction of any: industrial waste treatment facilities, domestic waste treatment facilities, potable water treatment and supply systems, ground water monitoring systems, off-site water and wastewater pipelines, transmission lines, stormwater control systems, solid waste disposal areas; and hazardous or toxic material handling facilities or areas. Review and action by the Southwest District office on said plans shall be accomplished pursuant to the post-certification procedure in Condition III in a timely fashion in accordance with Chapter 120, F.S., from the date of a complete submittal of such plans and any action may be subject to review pursuant to Chapter 120, F.S.

2. Ninety (90) days prior to the anticipated date of first commercial operation of each new electric power generating unit or associated facility, PEF shall provide the Department with an itemized list of any changes made to the facility design and operation plans since the time of the approval of these conditions. This pre-operational review of the final design and operation shall demonstrate continued compliance with Department rules and standards.

B. Control Measures

1. Stormwater Run-off

To control run-off during construction which may reach and thereby pollute waters of the state, necessary measures shall be utilized to settle, filter, treat or absorb silt-containing or pollutant-laden stormwater to ensure against spillage or discharge of excavated material that may cause turbidity in excess of 29 Nephelometric Turbidity Units above background in waters of the state. Control measures may consist of sediment traps, barriers, berms, and vegetation plantings. Exposed or disturbed soil shall be protected and stabilized as soon as possible to minimize sit and sediment laden run-off. The pH of the run-off shall be kept within the range of 6.0 to 8.5. PEF shall comply with Florida Administrative Code Chapters 62-25, and 40D-4. PEF shall complete the forms required by 40D-4 and submit those forms and the required information to

the SWFWMD for any modifications that might occur.

2. Open Burning

Open burning in connection with initial land clearing may be conducted in accordance with Chapter 62-256, F.A.C., Chapter 5I-2, F.A.C., Uniform Fire Code Section 33.101 Addendum, and any other applicable county regulation. Any burning of construction generated material, after initial land clearing that is allowed to be burned in accordance with Chapter 62-256, F.A.C., shall be approved by the Southwest District-office in conjunction with the Division of Forestry and any other county regulations that may apply. Burning shall not occur unless approved by the appropriate agency or if the Department or the Division of Forestry has issued a ban on burning due to fire safety conditions or due to air-pollution conditions.

3. Sanitary Wastes

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

4. Solid Wastes

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

5. Noise

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

6. Dust and Odors

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

7. Dewatering Operations

The dewatering operation during construction shall be carried out according to final dewatering and surface water management plans approved by SWFWMD.

8. Historical or Archeological Finds

If historical or archaeological artifacts, such as Indian canoes, are discovered at any time within the project site, PEF shall notify the DEP Southwest District office and the Bureau of Historic

Preservation, Division of Archives, History -and Records Management, R.A. Gray Building, Tallahassee, Florida 32399-0250, telephone number (850) 487-2073.

C. Environmental Control Program

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

D. Reporting

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

2. Upon or immediately prior to completion of construction of the facility or a certified phase thereof and upon or immediately prior to completion of all necessary preparation for the operation of the onsite potable water supply, domestic or industrial waste treatment facility, ground water monitoring system, brine pond, or solid waste disposal areas, the Southwest District office will be notified of certification of construction completion and a date on which a site or facility inspection can be performed in accordance with Condition V.

XIII. AIR

The construction and operation of Hines Energy Complex (Project) shall be in accordance with all applicable provisions of Chapters 62-210 to 297, F.A.C. and New Source Performance Standards (NSPS) Subparts GG, Dc, and Kb. The following emission limitations and conditions reflect Emission Limit determinations for Power Block 1 - 485 MW (two combined cycle combustion turbines and auxiliary equipment) as contained in permit 1050234-AV, Power Block 2 - 530 MW (two combined cycle combustion turbines and auxiliary equipment) of generating capacity for which the need has been determined governed by permit 1050234-001-AV, Power Block 3 - 530 MW (two combined cycle combustion turbines and auxiliary equipment) of generating capacity governed by permit 1050234-006-AC, and Power Block 4 - 530 MW (two combined cycle combustion turbines and auxiliary equipment) of generating capacity governed by draft permit 1050234-010-AC. Emission limit determinations for the remaining phases will be made upon review of supplemental applications. In addition to the foregoing, the Project shall comply with the following conditions of certification as indicated.

A. General Requirements

1. The maximum heat input (HHV) to each combustion turbine (CT) in Power Block 1 at an ambient temperature of 59 °F shall neither exceed 1,757 MMBtu/hr while firing natural gas, nor 1,846 MMBtu/hr while firing fuel oil. Heat input may vary depending on ambient conditions and the CT characteristics. The maximum heat input rates based on the higher heating value of the fuels (HHV) to each combustion turbine (CT) in Power Blocks 2, and 3 at an ambient temperature of 59 °F shall not exceed 2,048 MMBtu/hr and Power Block 4 at an ambient temperature of 59 °F shall not exceed 1,915 MMBtu/hr, while firing natural gas, nor shall Power Blocks 2, 3, and 4 exceed 2,155 MMBtu/hr while firing distillate fuel oil. The maximum heat input rates for the CTs in Power Blocks 1, 2, 3, and 4 will vary depending on ambient conditions and the combustion turbine characteristics that are described by the manufacturer's curves required by condition. XIII.G.8 Operation of these units at less than 60% capacity (based on heat input rates) is not allowed, except as required to cycle the units through periods of startup, shutdown and malfunction. The terms startup, shutdown and malfunction are defined in rule 62-210.200, F.A.C.

2. Each of the CTs in Power Blocks 1, 2, 3, and 4 may operate continuously, i.e., 8,760 hrs/year.

3. Only pipeline natural gas (NG) containing no more than 1.0 grain per scf of sulfur per 100 scf of natural gas or low sulfur fuel oil shall be fired in each combustion turbine. Only low sulfur fuel oil shall be fired in the diesel generator. The maximum sulfur content of the low sulfur fuel oil shall not exceed 0.05 percent, by weight. Only natural gas shall be fired in the auxiliary boiler.

4. The maximum heat input to the auxiliary boiler shall not exceed 99 MMBtu/hr. All fuel consumption shall be measured and recorded for the auxiliary boiler.

5. The maximum allowable fuel oil consumption for the Power Block 1 turbines is 13,762,806 gallons per year, which is equivalent to an aggregate of 1,000 hours per year of operation at full load.

6. Distillate fuel oil consumption for Power Block 2 Emission Units 014 and 015 shall not exceed 19,728,000 gallons in any consecutive 12-month period. [Note: This limitation limits annual fuel oil consumption in Power Block 2 CTs to the equivalent of approximately 720 hours per year operation for each turbine, based on 59° F annual temperature. Fuel oil consumption is not limited per turbine, and allowable fuel may be used by one turbine.]

7. PEF shall have the option of installing duct module(s) suitable for possible future installation of an oxidation catalyst and/or SCR equipment on each combined cycle generating unit in Power Block 1. In the event that the module(s) are not installed in the Heat Recovery Steam Generator (HRSG), the retrofit costs associated with not making provisions for such technology (initially) shall not be considered in any future economic evaluation to justify

not installing SCR or an oxidation catalyst.

8. Fugitive dust emissions during the construction period shall be minimized by covering or watering dust generation areas.

9. If site construction does not commence on Power Block 3 (530 MW) within 18 months of issuance of PSD Permit No. PSD-FL- 330, then PEF may request an extension of the 18-month period, provided that such request is received by the Department's Bureau of Air Regulation at least 90 days prior to the expiration date. Such a request shall identify the progress made toward commencement of the construction of the site and the expected time required to start and complete construction of the initial phase. The Department may grant the extension upon a satisfactory showing that the extension is justified. Units to be constructed or modified in later phases of the project will be reviewed under the supplementary review process of the Power Plant Siting Act.

10. NOx emissions from the Power Block 2 CTs (Emission Units 014 and 015) shall be controlled with dry low NOx combustors and selective catalytic reduction to comply with the NOx and ammonia limits of this certification. The emission units shall not be operated without the use of the SCR system except during periods of startup, shutdown when operating temperatures are outside the range of catalyst operating temperatures that are established by the catalyst manufacturer. [Rules 62-4.070(3) and 62-212.400, F.A.C., and BACT]

B. Power Blocks 1 and 2: Installation and Operation

ID	Emission Unit Description
	Power Block 1, CT 1A and 1B (two 250 MW gas turbine with unfired HRSGs)
	Auxiliary boiler
	Diesel generator (1,300 kW)
014	Power Block 2, CT 2A (170 MW gas turbine with unfired HRSG)
015	Power Block 2, CT 2B (170 MW gas turbine with unfired HRSG)

1. The maximum allowable emissions from each of the two CTs in Power Block 1, when firing natural gas or low sulfur fuel oil, in accordance with the BACT determination and subsequent data from Westinghouse, shall not exceed the following (at 59° F reference temperature for NOx emissions) (except during periods of start up, shutdown, and malfunction):

EMISSIONS LIMITATIONS

POLLUTANT	FUEL	BASIS ^(g)	LB/HR/CT ^(a)	TPY ^(b)
NOx	Gas	12 ppmvd ^(h)	73 ⁽ⁱ⁾	639
	Oil	42 ppmvd ^(h)	305	153
VOC ^(d)	Gas	7 ppmvw	10.4	91
	Oil	10 ppmvw	19.0	5.6
CO	Gas	25 ppmvd	77	675
	Oil	30 ppmvd	93	47
PM/PM10	Gas		15.6	79
	Oil ^(e)		44.8	21
SO2	Gas ^(f)		4.7	44
	Oil ^(f)		94	47
Visible Emissions	Gas	10 percent opacity		
	Oil	20 percent opacity		

Notes:

a. Pollutant emission rates may vary depending on ambient conditions (compressor inlet temperatures) and the CT characteristics. Manufacturer's curves for the NOx emission rate correction to other temperature at different loads shall be provided to DEP for review 90 days after selection of the CT. Subject to approval by the Department for technical validity applying sound engineering principles, the manufacturer's curves shall be used to establish pollutant emission rates over a range of temperatures for the purpose of compliance determination. Emission limitations in LB/HR/CT of NOx are blocked 24-hour averages (midnight to midnight) and are calculated as follows

NOx emissions shall be determined continuously by a Continuous Emissions Monitoring System (CEMS). A CEMS operated and maintained in accordance with 40 CFR 75 shall be used. Compliance with the NOx emissions standards in the above table shall be demonstrated with this CEMS system based on a 24-hour block average. Based on CEMS data at the end of each operating day, new 24-hour average emission rates, both actual and allowable (based on compressor inlet temperatures) are calculated from the arithmetic average of all valid hourly emission rates during the previous 24 operating hours. Valid hourly emission rates shall not include periods of startup (including fuel switching), shutdown, or malfunction as defined in Rule 62-210.200 where emissions exceed the NOx standard. These excess emission periods shall be reported as required in Specific Condition E.2.f. A valid hourly emission rate shall be calculated for each hour in which two NOx and carbon dioxide (or oxygen) concentrations are obtained at least 15 minutes apart. When monitoring data is not available, substitution for missing data shall be handled as required by Title IV (40 CFR 75) to calculate the 24-hour block average.

b. Annual emission limits (TPY) for natural gas are based on a total of two CTs operating at full load 8,760 hours per year (i.e., NOx - 73 lbs/hr X 2 CTs X 8,760 hrs/yr X 1 ton/2,000 lbs = 639 TPY). Annual emission limits (TPY) for fuel oil are based on full load operation for a total of 1,000 hours per year for the two CTs (i.e., NOx - 305 lbs/hr X 1,000 hrs/yr X 1 ton/2,000 lbs = 153 TPY).

c. Fuel oil NOx emissions are based on full load operation and 15 percent oxygen. For fuel oil firing, NOx levels of 42 ppmvd at 15 percent O2 are based on a fuel bound nitrogen content of 0.015 percent or less. The emission limit for NOx is adjusted as follows for higher fuel nitrogen contents up to a maximum of 0.030 percent by weight:

FUEL BOUND NITROGEN (% BY WEIGHT)	NOx LEVELS (PPMVD@15%O2)	NOx EMISSIONS LB/HR/CT	NOx EMISSIONS TPD
0.015 or less	42	305	153
0.020	44	320	160
0.025	46	334	167
0.030	48	349	175

using the formula

$$STD = 0.0042 + F$$

where: STD = allowable NOx emissions (percent by volume at 15 percent O2 and on a dry basis).

F = NOx emission allowance for fuel-bound nitrogen defined by the following table:

FUEL BOUND NITROGEN (% BY WEIGHT)	F (NOx % BY VOLUME)
$0 < N < 0.015$	0
$0.015 < N < 0.03$	$0.04 (N - 0.015)$

where: N = the nitrogen content of the fuel (% by weight).

NOx emissions limits are preliminary for the fuel oil specified in Specific Condition No. A.3. PEF shall maintain and submit fuel bound nitrogen content data for the low sulfur fuel oil prior to commercial operation. Adjustments of the NOx standard (up and down) shall be calculated and recorded based upon a volume weighted average of the nitrogen content of each bulk fuel oil shipment and the nitrogen content of the existing fuel in the storage tank. The NOx emission allowance (F) for fuel oil shall not be adjusted between fuel oil shipments. Records for these adjusted standards shall be kept on site for a minimum of 5 years.

- d. Exclusive of background concentrations.
- e. PM/PM10 emission limitations include sulfuric acid mist.
- f. SO2 emissions are based on a maximum of 1 grain of S/100cf of natural gas and 0.05 percent sulfur in the fuel oil.
- g. The values are the computational basis for the lb/hr numbers, which are the actual emission limitations. Once a combustion turbine manufacturer has been selected, it may be necessary to modify this basis. If this basis is to be modified, a professional engineer-certified equivalency analysis by the manufacturer must be submitted to the Department. The equivalency analysis will recommend an emissions normalizing basis (i.e., lb/hr, lb/MMBtu, lb/MWh, or ppmvd) and associated emissions appropriate for the specific manufacturer's equipment. If the equivalency analysis demonstrates an impact equal to or less than the current lb/hr limit, the Department shall amend the conditions to reflect the alternate basis. The characteristics and parameters of the CT selected will be reflected in other permit conditions, where appropriate.
- h. At 15 percent O2, not ISO corrected.
- i. Control of nitrogen oxides from each CT while firing natural gas shall be accomplished using dry low NOx burners (DLN) and SCR. Ammonia slip shall not exceed 10 ppm. If the Westinghouse Piloted Ring

Combustor (PRC) or a more advanced DLN burner is developed which is able to comply with the emission limits (listed in the above table) and is installed by November 1, 2000 the SCR system may be removed and replaced with these new burners upon 30 days prior notice to DEP. This action would implement the original BACT for NOx and would not be subject to PSD review. This notice shall include information on the new burners which provides reasonable assurance and PE certification that these DLN burners can consistently meet the BACT emission limits. In this case the new dry low NOx burners shall be tested in accordance with the initial performance test as described in Section C.1 within 180 days of startup with the new burners.

2. Emissions from the Power Block 2 CTs (Emission Units 014 and 015) shall not exceed the following limits for the listed pollutants at any ambient temperature:

Pollutant	Emission Limit Natural Gas	Emission Limit Distillate Fuel Oil	Averaging Time
PM/PM10	7.3 lb/hour	64.8 lb/hour	3 hours (oil) 1 6 hours (gas) 1
NOx	3.5 ppmvd @ 15% O2	12 ppmvd @ 15% O2	24 hour block 2
CO	16 ppmvd @ 15% O2	30 ppmvd @ 15% O2	24 hour block 2
Ammonia	5 ppmvd @ 15% O2	9 ppmvd @ 15% O2	3 hours 1
VOC	2 ppmvd @ 15% O2	10 ppmvd @ 15% O2	3 hours 1
VE	10% opacity	10% opacity	6 minutes 3

Notes:

¹ The averaging time for these pollutants and emission limits corresponds to the required length of sampling for the initial and subsequent emission tests required by this permit.

² The averaging time for these pollutants and emission limits is a block average. Blocks shall start at midnight each operating day.

³ This averaging time represents the minimum averaging time per EPA Method 9. [Rules 62-4.070(3), 62-204.800(10) (d) 2 and 62-212.400, F.A.C., and BACT]
[Note: The concentration limits for NOx are equivalent to an average of 25.2 lb/hour while firing gas, and 93.5 lb/hour while firing distillate fuel oil, as pounds of NO₂ per hour, at 20 °F. The concentration limits for CO are equivalent to an average of 73.6 lb/hour while firing gas, and 112 lb/hour while firing distillate fuel oil, at 20 °F. The concentration limits for VOC are equivalent to an average of 4.7 lb/hour while firing gas and 22 lb/hour while firing distillate fuel oil, reported as pounds of methane per hour, at 20 °F.]

3. Excess emissions from a turbine resulting from start up, shutdown, malfunction or load change shall be acceptable providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the

Department for a longer duration. PEF shall provide a general description of the procedures to be followed during periods of start up, shutdown, malfunction or load change to ensure that the best operational practices to minimize emissions will be adhered to and the duration of any excess emissions will be minimized. The description should be submitted to the Department along with the initial compliance test data. The description may be updated as needed by submitting such update to the Department within thirty (30) days of implementation.

4. Operation of the auxiliary steam boiler shall be limited to a maximum of 100 hours per year and only during periods of cold CT startup or quick startup out of short-term shutdown mode, when no other source of steam is available or during periodic testing. The following emission limitations shall apply:

- a. NOX emissions shall not exceed 0.1 lb/MMBtu for natural gas firing or 0.2 lb/MMBtu for oil firing.
- b. Sulfur dioxide emissions shall be limited by firing natural gas or low sulfur fuel oil with a maximum sulfur content of 0.05 percent by weight.
- c. Visible emissions shall not exceed 10 percent opacity while burning natural gas, or 20 percent opacity (except for one six-minute period per hour during which opacity shall not exceed 27 percent), while burning low sulfur fuel oil.

5. Operation of the emergency diesel generator shall be limited to a maximum of 100 hours per year and only during periods of on site emergency power needs (when no other power source is available) or during periodic testing. The following emission limitations shall apply:

- a. NOX emissions shall not exceed 9.82 grams/hp-hr.
- b. Sulfur dioxide emissions shall be limited by firing only low sulfur fuel oil with maximum sulfur content of 0.05 percent by weight.
- c. Visible emissions shall not exceed 20 percent opacity.

C. Power Block 3: Installation and Operation

ID	Emission Unit Description
016	Power Block 3, CT 3A (170 MW gas turbine with unfired HRSG)
017	Power Block 3, CT 3B (170 MW gas turbine with unfired HRSG)

1. Gas Turbines: The permittee is authorized to install, tune, operate, and maintain two Siemens Westinghouse Model 501 FD gas turbine-electrical generator sets each with a generating capacity of 170 MW. Each gas turbine shall include the Siemens TXP automated gas turbine control system and have dual-fuel capability. The gas turbines will utilize DLN combustors.

2. Gas Turbine NOx Controls

a. DLN Combustion: The permittee shall operate and maintain the DLN combustion system to control NOx emissions from each gas turbine when firing natural gas. Prior to the initial emissions performance tests required for each gas turbine, the DLN combustors and automated gas turbine control system shall be tuned, in conjunction with any post-combustion emissions control equipment, to achieve the permitted levels for CO and NOx emissions. Thereafter, each system shall be maintained and tuned in accordance with the manufacturer's recommendations.

b. Water Injection: The permittee shall install, operate, and maintain a water injection system to reduce NOx emissions from each gas turbine when firing distillate oil. Prior to the initial emissions performance tests required for each gas turbine, the water injection system shall be tuned to achieve the permitted levels for CO and NOx emissions. Thereafter, each system shall be maintained and tuned in accordance with the manufacturer's recommendations.

c. SCR System: The permittee shall install, tune, operate, and maintain a SCR system to control NOx emissions from each gas turbine when firing either natural gas or distillate oil. The SCR system consists of an ammonia injection grid, catalyst, ammonia storage, monitoring and control system, electrical, piping and other ancillary equipment. The SCR system shall be designed, constructed and operated to achieve the permitted levels for NOx emissions and ammonia slip.

3. HRSGs: The permittee is authorized to install, operate, and maintain two HRSGs. Each HRSG shall be designed to recover heat energy from one of the two gas turbines (CT 3A or CT 3B) and deliver steam to the steam turbine-electrical generator through a common manifold.

4. CO Controls: The permittee shall design and construct the HRSGs such that an oxidation catalyst can be readily installed if necessary to achieve compliance with the CO emission limitations. The oxidation catalyst, should it be installed, shall be designed and operated to achieve a maximum outlet concentration of 3.5 ppmvd corrected to 15% oxygen and 7.0 ppmvd when corrected to 15% oxygen when distillate oil is fired.

5. Permitted Capacity - Gas Turbines: The maximum heat input rate to each gas turbine is 1,915 MMBtu per hour when firing natural gas and 2,020 MMBtu per hour when

firing distillate oil (based on a compressor inlet air temperature of 59 °F, the HHV of each fuel, and 100% load). Heat input rates will vary depending upon gas turbine characteristics, ambient conditions, alternate fuels, and evaporative cooling. The permittee shall provide manufacturer's performance curves (or equations) that correct for site conditions to the Permitting and Compliance Authorities within 45 days of completing the initial compliance testing. Operating data may be adjusted for the appropriate site conditions in accordance with the performance curves and/or equations on file with the Department. [Rule 62-210.200(PTB), F.A.C.]

6. Methods of Operation: Subject to the restrictions and requirements of this permit, the gas turbines may operate under the following methods of operation.

a. Hours of Operation: Subject to the other operational restrictions of this permit, the gas turbines may operate throughout the year (8,760 hours per year).

b. Authorized Fuels: Each gas turbine shall fire natural gas as the primary fuel, which shall contain no more than 1.0 grains of sulfur per 100 standard cubic feet of natural gas. As a restricted alternate fuel, each gas turbine may fire No. 2 distillate oil (or a superior grade) containing no more than 0.05% sulfur by weight. Distillate fuel oil consumption of both emissions units shall not exceed 19,703,000 gallons in any consecutive 12 month period.

c. Combined Cycle Operation: Each gas turbine/HRSG system may operate to produce direct, shaft-driven electrical power and steam-generated electrical power from the steam turbine-electrical generator as a "2-on-1" combined cycle unit subject to the restrictions of these conditions. In accordance with the specifications of the SCR and HRSG manufacturers, the SCR system shall be on line and functioning properly during combined cycle operation or when the HRSG is producing steam.

d. Ammonia Injection: Ammonia injection shall begin as soon as operation of the gas turbine/HRSG system achieves the operating parameters specified by the manufacturer.

Emissions from the Power Block 3 CTs (Emission Units 016 and 017). Emissions from each gas turbine/HRSG shall not exceed the following limits for the listed pollutants at any ambient temperature.

Pollutant	Emission Limit (corrected to 15% oxygen)		Averaging Time
	Natural Gas	Fuel Oil	
CO ^a	10	20	24 hour block
NOx ^b	2.5	10	24 hour block
VOC ^c	2	10	3 hours
Ammonia ^d	5	5	3 hours
PM/PM ₁₀ ^e	Fuel specifications. Visible emissions shall not exceed 10% opacity for each 6-minute block average.		
SAM/SO ₂ ^f	Fuel specifications.		

Notes:

^a. Compliance with the CO standards shall be demonstrated based on data collected by the required CEMS. Compliance with the 24-hour CO CEMS standards shall be determined separately based on the hours of operation for each alternative fuel.

^b. Compliance with the NOx standards shall be demonstrated based on data collected by the required CEMS. NOx mass emission rates are defined as oxides of nitrogen expressed as NO2. Compliance with the 24-hour NOx CEMS standards shall be determined separately based on the hours of operation for each alternative fuel.

^c. Compliance with the VOC standards shall be demonstrated by conducting tests in accordance with EPA Method 25A. Optionally, EPA Method 18 may also be performed to deduct emissions of methane and ethane. The emission standards are based on VOC measured as propane.

^d. Subject to the requirements of Condition No. XIII.D.4 of this section, each SCR system shall be designed and operated for an initial ammonia slip target of less than 5 ppmvd corrected to 15% oxygen based on the average of three test runs. Compliance with the ammonia slip standard shall be demonstrated by conducting tests in accordance with EPA Method CTC-027.

^e. The fuel specifications established in Condition XIII.A.3. combined with the efficient combustion design and operation of each gas turbine represents the BACT determination for PM/PM10 emissions. Compliance with the fuel specifications, CO standards, and visible emissions standards shall serve as indicators of good combustion. Compliance with the fuel specifications shall be demonstrated by keeping records of the fuel sulfur content. Compliance with the visible emissions standard shall be demonstrated by conducting tests in accordance with EPA Method 9.

^f. The fuel sulfur specifications in Condition XIII.A.3 effectively limit the potential emissions of SAM and SO2 from the gas turbines and represent the BACT determination for these pollutants. Compliance with the fuel sulfur specifications shall be determined by the requirements in Condition No. XIII.D.5. of this section.

8. Operating Procedures for Power Block 3: The Emission Limitations determinations established by this certification rely on "good operating practices" to reduce emissions. Therefore, all operators and supervisors shall be properly trained to operate and maintain the gas turbines, HRSGs, and pollution control systems in accordance with the guidelines and procedures established by each manufacturer. The training shall include good operating practices as well as methods of minimizing excess emissions. [Rules 62-4.070(3) and 62-212.400(BACT), F.A.C.]

9. Excess Emissions Prohibited: Excess emissions caused entirely or in part

by poor maintenance, poor operation or any other equipment or process failure that may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. All such preventable emissions shall be included in any compliance determinations based on CEMS data. [Rule 62-210.700(4), F.A.C.]

10. Alternate Visible Emissions Standard: Visible emissions due to startups, shutdowns, and malfunctions shall not exceed 10% opacity except for up to ten, 6-minute averaging periods during a calendar day, which shall not exceed 20% opacity. [Rule 62-212.400(BACT), F.A.C.]

11. CEMS Data Exclusion: As provided in this paragraph, NO_x and CO emissions data recorded during periods of startup, shutdown, oil-to-gas switches, and documented malfunctions may be excluded from the block average calculated to demonstrate compliance with the emission limits of Condition No. XIII.C.1. of this section.

a. Periods of data excluded for startup shall not exceed two hours in any 24-hour block except for cold startups. A "cold startup" is defined as a startup following a complete shutdown lasting a minimum of 48 hours. Periods of data excluded for cold startup shall not exceed four hours in any 24-hour block period.

b. Periods of data excluded for shutdown shall not exceed two hours in any 24-hour block.

c. Periods of data excluded for oil-to-gas fuel switches shall not exceed two hours in any 24-hour block.

d. Periods of data excluded for documented malfunctions shall not exceed two hours in any 24-hour block. A "documented malfunction" means a malfunction that meets the notification requirements specified in Condition XIII.F.7. of these conditions.

e. All periods of data excluded for any startup, shutdown, oil-to-gas fuel switches, or documented malfunction shall be consecutive for each episode. Periods of data excluded for all startup, shutdown, oil-to-gas fuel switches, or documented malfunctions shall not exceed six hours in any 24-hour block period during which cold startup occurred. For all other 24-hour block periods, periods of data excluded for all startups, shutdowns, oil-to-gas switches, or documented malfunctions shall not exceed four hours.

f. The Permittee shall minimize the duration of data excluded to the extent practicable. Data shall not be excluded if the startup, shutdown, or documented malfunction was caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably have been prevented. [Rules 62-212.400(BACT) and 62-210.700, F.A.C.]

12. CEMS Data Exclusion – DLN Tuning: CEMS data collected during

initial or other major DLN tuning sessions shall be excluded from the CEMS compliance demonstration provided the tuning session is performed in accordance with the manufacturer's specifications. A "major tuning session" would occur after completion of initial construction, a combustor change-out, a major repair or maintenance to a combustor, or other similar circumstances. Prior to performing any major tuning session, the Permittee shall provide the DEP SW District Office with an advance notice that details the activity and proposed tuning schedule. The notice may be by telephone, facsimile transmittal, or electronic mail. [Design; Rule 62-4.070(3), F.A.C.]

D. Power Block 4: Installation and Operation

These Conditions of Certification authorize construction and installation of the following new emissions units.

ID	Emission Unit Description
018	Power Block 4, CT 4A (170 MW gas turbine with unfired HRSG)
019	Power Block 4, CT 4B (170 MW gas turbine with unfired HRSG)
020	Natural Gas-fired auxiliary boiler

{Permitting Note: The Hines Energy Complex, Power Block 4 (Power Block 4, or "the project") consists of 2 gas turbine-electrical generator sets (Units CT 4A and CT 4B), 2 unfired HRSGs, and a single steam-turbine electrical generator.}

1. The Permittee is authorized to install, tune, operate, and maintain two General Electric Model 7FA gas turbine-electrical generator sets each with a nominal generating capacity of 170 MW. Each gas turbine shall have dual-fuel capability. The gas turbines will utilize dry low-NOx (DLN) combustors.

2. Gas Turbine NOx Controls

a. The Permittee shall operate and maintain the DLN combustion system to control NOx emissions from each gas turbine when firing natural gas. Prior to the initial emissions performance tests required for each gas turbine, the DLN combustors and automated gas turbine control system shall be tuned, in conjunction with any post-combustion emissions control equipment, to achieve the permitted levels for CO and NOx emissions. Thereafter, each system shall be maintained and tuned in accordance with the manufacturer's recommendations.

b. The Permittee shall install, operate, and maintain a water injection system to reduce NOx emissions from each gas turbine when firing distillate oil. Prior to the

initial emissions performance tests required for each gas turbine, the water injection system shall be tuned, in conjunction with any post-combustion emissions control equipment, to achieve the permitted levels for CO and NOx emissions. Thereafter, each system shall be maintained and tuned in accordance with the manufacturer's recommendations.

c. The Permittee shall install, tune, operate, and maintain a SCR system to control NOx emissions from each gas turbine when firing either natural gas or distillate oil. The SCR system consists of an ammonia injection grid, catalyst, ammonia storage, monitoring and control system, electrical, piping and other ancillary equipment. The SCR system shall be designed, constructed and operated to achieve the permitted levels for NOx emissions and ammonia slip. {Permitting Note: In accordance with 40 CFR 60.130, the storage of ammonia shall comply with all applicable requirements of the Chemical Accident Prevention Provisions in 40 CFR 68.}

d. The Permittee is authorized to install, operate, and maintain two heat recovery steam generators (HRSGs). Each HRSG shall be designed to recover heat energy from one of the two gas turbines (CT 4A or CT 4B) and deliver steam to the steam turbine-electrical generator through a common manifold. {Permitting Note: The two HRSGs deliver steam to a single steam turbine-electrical generator with a generating capacity of 190 MW.}

4. The Permittee shall design and construct the HRSGs such that an oxidation catalyst can be readily installed if necessary to achieve compliance with the CO emission limitations. The oxidation catalyst, should it be installed, shall be designed and operated to achieve a maximum outlet concentration of 2.5 ppmvd corrected to 15% oxygen when natural gas is fired and 5.0 ppmvd corrected to 15% oxygen when distillate oil is fired.

5. Each gas turbine shall fire natural gas as the primary fuel, which shall contain no more than 1.0 grains of sulfur per 100 standard cubic feet of natural gas. As a restricted alternate fuel, each gas turbine may fire No. 2 distillate oil (or a superior grade) containing no more than 0.05% sulfur by weight. Distillate fuel oil consumption of both emissions units shall not exceed 30,700,000 gallons in any consecutive 12 month period. {Permitting Note: This condition limits annual average fuel oil consumption to the equivalent of approximately 1,000 hours of operation per year per turbine, based on 59 °F annual average temperature. Fuel oil consumption is not limited per turbine, and the allowable fuel may be used in a single turbine.}

6. Each gas turbine/HRSG system may operate to produce direct, shaft-driven electrical power and steam-generated electrical power from the steam turbine-electrical generator as a "2-on-1" combined cycle unit subject to the restrictions of this permit. In accordance with the specifications of the SCR and HRSG manufacturers, the SCR system shall be on line and functioning properly during combined cycle operation or when the HRSG is producing steam.

7. Ammonia injection shall begin as soon as operation of the gas

turbine/HRSG system achieves the operating parameters specified by the manufacturer.

8. Emissions from each gas turbine/HRSG shall not exceed the following limits for the listed pollutants at any ambient temperature.

Pollutant	Emission Limit (ppmvd corrected to 15% oxygen)		Averaging Time
	Natural Gas	Fuel Oil	
CO ^a	8.0	12.0	24 hour block
NOx ^b	2.5	10.0	24 hour block
VOC ^c	1.3	3.0	3 hours
Ammonia ^d	5.0	5.0 ^e	3 hours

Pollutant	Fuel Specification and Emission Limit
PM/PM ₁₀ ^e	Fuel specifications. Visible emissions shall not exceed 10% opacity for each 6-minute block average.
SAM/SO ₂ ^f	Fuel specifications.

Notes:

^a Compliance with the CO standards shall be demonstrated based on data collected by the required CEMS. Compliance with the 24-hour CO CEMS standards shall be determined separately based on the hours of operation for each alternative fuel. {Permitting Note: A 24-hour compliance average may be based on as little as 1-hour of CEMS data or as much as 24-hours of CEMS data. The Department shall revise the CO emissions standards following any future installation of an oxidation catalyst pursuant to condition XIII.D.4.}

^b Compliance with the NOx standards shall be demonstrated based on data collected by the required CEMS. NOx mass emission rates are defined as oxides of nitrogen expressed as NO₂. Compliance with the 24-hour NOx CEMS standards shall be determined separately based on the hours of operation for each alternative fuel. {Permitting Note: A 24-hour compliance average may be based on as little as 1-hour of CEMS data or as much as 24-hours of CEMS data.}

^c Compliance with the VOC standards shall be demonstrated by conducting tests in accordance with EPA Method 25A. Optionally, EPA Method 18 may also be performed to deduct emissions of methane and ethane. The emission standards are based on VOC measured as propane.

^d Compliance with this standard is adequate to avoid a PSD/BACT Review. Each SCR system shall be designed and operated with an ammonia slip of less than 5 ppmvd corrected to 15% oxygen when firing natural gas based on the average of three test runs.

Compliance with the ammonia slip standard shall be demonstrated by conducting tests in accordance with EPA Method CTM-027 or EPA Method 320.

^e The fuel specifications established in condition XIII.D.5. of this section combined with the efficient combustion design and operation of each gas turbine represents the BACT determination for PM/PM10 emissions. Compliance with the fuel specifications, CO standards, and visible emissions standards shall serve as indicators of good combustion. Compliance with the fuel specifications shall be demonstrated by keeping records of the fuel sulfur content. Compliance with the visible emissions standard shall be demonstrated by conducting tests in accordance with EPA Method 9.

^f The fuel sulfur specifications in condition XIII.D.5. of this section effectively limit the potential emissions of SAM and SO₂ from the gas turbines and represent the BACT determination for these pollutants. Compliance with the fuel sulfur specifications shall be determined by the requirements in condition XIII.J.6. Although the ammonia slip limit is established at 5.0 ppm, compliance shall be demonstrated while combusting natural gas.

{Permitting Note: Informational only - the concentration limits and fuel specifications for the control of the above pollutants are equivalent to the following mass emission rates (at 20 °F):
CO = 32.1 lb/hr for natural gas firing and 57.2 lb/hr for distillate fuel oil firing,
NO_x = 17.7 lb/hr for natural gas firing and 82.4 lb/hr for distillate fuel oil firing,
VOC = 3.1 lb/hr for natural gas firing and 8.1 lb/hr for distillate fuel oil firing,
PM₁₀ = 10.1 lb/hr for natural gas firing and 39.1 lb/hr for distillate fuel oil firing, and
SO₂ = 5.4 lb/hour for natural gas firing and 109.2 lb/hr for distillate fuel oil firing.
SAM emissions are estimated to be less than 10% of the SO₂ emissions.}

9. All operators and supervisors shall be properly trained to operate and maintain the gas turbines, HRSGs, and pollution control systems in accordance with the guidelines and procedures established by each manufacturer. The training shall include good operating practices as well as methods of minimizing excess emissions.

10. Excess emissions caused entirely or in part by poor maintenance, poor operation or any other equipment or process failure that may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. All such preventable emissions shall be included in any compliance determinations based on CEMS data.

11. Visible emissions due to startups, shutdowns, and malfunctions shall not exceed 10% opacity except for up to ten, 6-minute averaging periods during a calendar day, which shall not exceed 20% opacity.

12. During any 24 hour period in which at least one hour of startup or shutdown operation has occurred, the following alternative emission limits shall apply:

- a. An alternative NOx limit of 3000 lb shall apply if natural gas is the exclusively fired fuel;
- b. An alternative NOx limit of 8880 lb shall apply if any fuel oil is fired; and
- c. An alternative CO limit of 4200 lb shall apply when firing either natural gas or fuel oil.

13. Excess emissions resulting from startup, shutdown, or malfunction shall be permitted provided that best operational practices are adhered to and the duration of excess emissions shall be minimized. Best operating practices shall be used to minimize hourly emissions that occur during episodes of startup, shutdown, oil-to-gas fuel switching, or documented malfunction. Excess emissions shall in no case exceed two hours in any 24-hour period

14. As provided in this paragraph, NOx and CO emissions data recorded during certain periods may be excluded from the compliance determination calculation requirements of this section.

- a. Periods of data excluded for oil-to-gas fuel switches shall not exceed two hours in any 24-hour block.

- b. Periods of data excluded for documented malfunctions shall not exceed two hours in any 24-hour block. A "documented malfunction" means a malfunction that meets the notification requirements specified in condition XIII.J.8. The Permittee shall minimize the duration of data excluded to the extent practicable. Data shall not be excluded if the documented malfunction was caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably have been prevented.

- c. Data collected during periods caused by the alternate emissions standard provisions of condition 12 may be excluded from the compliance determination calculation requirement of condition 8.

15. CEMS data collected during initial or other major DLN tuning sessions shall be excluded from the CEMS compliance demonstration provided the tuning session is performed in accordance with the manufacturer's specifications. A "major tuning session" would occur after completion of initial construction, a combustor change-out, a major repair or maintenance to a combustor, or other similar circumstances. Prior to performing any major tuning session, the Permittee shall provide the Compliance Authority with an advance notice that details the activity and proposed tuning schedule. The notice may be by telephone, facsimile transmittal, or electronic mail.

- E. Power Block 5: Installation and Operation (Reserved)
- F. Power Block 6: Installation and Operation (Reserved)
- G. Performance Testing

1. An initial (I) performance test shall be performed on each CT in Power Blocks 1 and 2 for each fuel being used. Testing of emissions shall be conducted with the source operating at capacity (maximum heat input rate for the tested operating temperature). Capacity is defined as 90 - 100 percent of permitted capacity. If it is impracticable to test at capacity, then sources may be tested at less than capacity; in this case subsequent source operation is limited to 110 percent of the test load until a new test is conducted. Once the unit is so limited, then operation at higher capacities is allowed for no more than fifteen consecutive days for purposes of additional compliance testing to regain the rated capacity in the permit, with prior notification to the Department. Annual (A) compliance tests shall be performed on each CT with the fuel(s) indicated below. Tests shall be conducted using EPA reference methods in accordance with 40 CFR 60, Appendix A, as adopted by reference in Rule 62-297, F.A.C.:

- a. Reference Method 5 or 1.7 for PM (I, A - only for oil and only if fuel oil is fired more than 400 hours for the CT in the previous federal fiscal year). Reference Method 9 for VE (I, A - only for oil and only if fuel oil is fired more than 400 hours for the CT in the previous federal fiscal year).
- b. Reference Method 9 for VE (I, A - only for oil and only if fuel oil is fired more than 400 hour for the CT in the previous federal fiscal year).
- c. Reference Method 10 for CO (I, A - for gas and annually for oil if fuel oil is fired more than 400 hours for the CT in the previous federal fiscal year).
- d. Reference Method 20 for NOX (I, only, for compliance with 40 CFR 60.332 and 40 CFR 60.335).
- e. Reference Method 18 or Method 25A for VOC (I).
- f. ASTM D 4294 (or equivalent) for sulfur content of distillate oil (I, A), which can be used for determining SO₂ emissions annually.
- g. ASTM D 1072-80, D 3031-81, D 4084-82, or D 3246-81 (or equivalent) for sulfur content of natural gas (I).
- h. Ammonia (I) by EPA Conditional Test Method CTM-027 or a test method approved by DEP prior to the initial performance test.

Other DEP approved methods may be used for compliance testing after prior departmental

approval.

2. Test Methods Power Block 3, and 4: Any required tests shall be performed in accordance with the following reference methods.

Method	Description of Method and Comments
CTM-027	Procedure for Collection and Analysis of Ammonia in Stationary Sources This is an EPA conditional test method. The minimum detection limit shall be 1 ppm.
7E	Determination of Nitrogen Oxide Emissions from Stationary Sources (Instrumental Analyzer Procedure)
9	Visual Determination of the Opacity of Emissions from Stationary Sources The test shall be conducted for a minimum of 30 minutes.
10	Determination of Carbon Monoxide Emissions from Stationary Sources This method shall be based on a continuous sampling train.
18	Measurement of Gaseous Organic Compound Emissions by Gas Chromatography (Optional) EPA Method 18 may be used concurrently with EPA Method 25A to deduct emissions of methane and ethane from the measured VOC emissions.
20	Determination of Nitrogen Oxides, Sulfur Dioxide, and Diluent Emissions from Stationary Gas Turbines
25A	Determination of Total Gaseous Organic Concentration Using a Flame Ionization Analyzer

Method CTM-027 is published on EPA's Technology Transfer Network Web Site at <http://www.epa.gov/ttn/emc/ctm.html>. The other methods are described in Appendix A of 40 CFR 60, adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Rules 62-204.800, F.A.C.; 40 CFR 60, Appendix A]

3. Initial Compliance Determinations Power Block 3, and 4: Each gas turbine shall be stack tested to demonstrate initial compliance with the emission standards for CO, NOx, VOC, visible emissions, and ammonia slip. The tests shall be conducted within 60 days after achieving the maximum production rate at which the unit will be operated, but not later than 180 days after the initial startup of each unit. Each unit shall be tested when firing natural gas and when firing distillate fuel oil. CEMS data collected during the required Relative Accuracy Test Assessments (RATA) may be used to demonstrate compliance with the initial CO and NOx standards. CO and NOx emissions recorded by the CEMS shall also be reported for each run during tests for visible emissions, VOC and ammonia slip. The Department may require the Permittee to conduct additional tests after major replacement or major repair of any air pollution control equipment, such as the SCR catalyst, DLN combustors, etc. [Rule 62-

4. Continuous Compliance Power Block 3, and 4: The Permittee shall demonstrate continuous compliance with the CO and NO_x emissions standards based on data collected by the certified CEMS. Within 45 days of conducting any RATA on a CEMS, the Permittee shall submit a report to the DEP SW District Office summarizing results of the RATA. Annual Compliance Tests: During each federal fiscal year (October 1st to September 30th), each gas turbine shall be tested to demonstrate compliance with the emission standards for visible emissions and ammonia.

5. Additional Ammonia Slip Testing Power Block 3, and 4: If the tested ammonia slip rate for a gas turbine exceeds 5 ppmvd corrected to 15% oxygen when firing natural gas during the annual test, the Permittee shall:

a. Begin testing and reporting the ammonia slip for each subsequent calendar quarter;

b. Before the ammonia slip exceeds 7 ppmvd corrected to 15% oxygen, take corrective actions that result in lowering the ammonia slip to less than 5 ppmvd corrected to 15% oxygen; and

c. Test and demonstrate that the ammonia slip is no more than 5 ppmvd corrected to 15% oxygen within 15 days after completing the corrective actions.

d. Corrective actions may include, but are not limited to, adding catalyst, replacing catalyst, or other SCR system maintenance or repair. After demonstrating that the ammonia slip level is no more than 5 ppmvd corrected to 15% oxygen, testing and reporting shall resume on an annual basis. [Rules 62-4.070(3) and 62-297.310(7)(b), F.A.C.]

6. The maximum sulfur content of the low sulfur fuel oil shall not exceed 0.05 percent by weight. Compliance shall be demonstrated in accordance with the requirements of 40 CFR 60.334 testing for sulfur content of the fuel oil in the storage tanks on each occasion that fuel is transferred to the storage tanks from any other source. Testing for fuel bound nitrogen content by ASTM D3431 or D4629 or other equivalent ASTM method, and for fuel oil higher heating value, shall also be conducted on the same schedule.

7. Manufacturer's curves or equations for correction to other temperatures shall be provided to DEP for review 90 days after selection of the CT. Subject to approval by the Department for technical validity applying sound engineering principles, the manufacturer's curves shall be used to establish heat input rates over a range of temperatures for the purpose of compliance determination.

8. Emission Tests Required for Power Block 2: The owner or operator shall demonstrate compliance with the emission limits of this section for Power Block 2 for the

following pollutants, by testing each emissions unit at the frequencies and using the test methods specified below. Initial emissions testing shall be performed separately for each of the allowable fuels. Annual emissions testing while firing distillate fuel oil is not required during any federal fiscal year (October 1 – September 30) during which less than 6,140,000 gallons of distillate fuel oil is fired in both emissions units combined.

[Note: The fuel limitation for waiving testing while firing distillate fuel oil corresponds to the equivalent of approximately 200 hours of operation per year for each turbine.]

Pollutant	Test Method ¹	Test Frequency
PM/PM10	Method 5 ²	Initially and annually
Ammonia	CTM-027 ³	Initially and annually
VE	Method 9 ⁴	Initially and annually
VOC	Method 25A, and optional Method 18 ⁵	Initially and prior to renewal of each subsequent operation permit

Notes:

¹ Test methods are from 40 CFR 60 Appendix A, except for Method CTM-027, "Procedure for Collection and Analysis of Ammonia in Stationary Sources," which is an EPA conditional test method.

² For tests conducted while firing gas, the sampling time for each run shall be a minimum of two hours and the sampling volume shall be a minimum of 60 dscf. For tests conducted while firing oil, the sampling time for each run shall be a minimum of one hour and the sampling volume shall be a minimum of 30 dscf. Only an analysis of the "front half catch" is required.

³ The test and analyses shall be conducted so that the minimum detection limit is 1 ppmvd.

⁴ The test shall be conducted for a minimum of 30 minutes simultaneously with one run of the Method 5 test.

⁵ Method 18 may be used simultaneously with Method 25A to determine the concentration of methane and ethane which may be subtracted from the results of the Method 25A analysis, with all results expressed on a common basis.

In addition to the requirements of condition 16 of Section II of Permit PSD-FL-296, permitted capacity is defined as 90-100 percent of the maximum heat input rate allowed by the permit, corrected for the average turbine inlet temperature during the test (with 100 percent represented by a curve depicting heat input vs. turbine inlet temperature provided by the turbine manufacturer).

Manufacturer's curves that relate combustion turbine heat input to turbine inlet temperature shall be provided to the Department's Bureau of Air Regulation and the Southwest District Office within 45 days of completing the initial compliance testing.

Replacement of the major components of the air pollution control equipment, such as SCR

catalyst or the combustors, may be used by the Department as justification to require a special compliance test pursuant to the requirements of condition 22 of Section II of Permit PSD-FL-296. [Rules 62-4.070(3), 62-212.400 and 62-297.310, F.A.C.]

9. Continuous Emission Monitoring System for Power Block 2, 3, and 4:

a. The Permittee shall install, calibrate, maintain, and operate continuous emission monitoring (CEMs) systems in the exhaust stack of each emissions unit to measure and record the emissions of NO_x and CO from these emissions units, and the oxygen (O₂) content or carbon dioxide content (CO₂) of the flue gas at the location where NO_x and CO are monitored, in a manner sufficient to demonstrate compliance with the emission limits of these conditions. If CO₂ is monitored, the O₂ content shall be calculated using F factors appropriate for the fuel being fired. The CEMs systems shall be used to demonstrate compliance with the emission limits for NO_x and CO of condition B.2. of this section. Compliance with the emission limits for NO_x and CO shall be based on a 24-hour block average starting at midnight of each operating day. The 24-hour block average shall be calculated from 24 consecutive hourly average emission rate values. Each hourly value shall be computed using at least one data point in each fifteen minute quadrant of an hour, where the unit combusted fuel during that quadrant of an hour. Notwithstanding this requirement, an hourly value shall be computed from at least two data points separated by a minimum of 15 minutes (where the unit operates for more than one quadrant of an hour). The owner or operator shall use all valid measurements or data points collected during an hour to calculate the hourly averages. All data points collected during an hour shall be, to the extent practicable, evenly spaced over the hour. If the CEM system measures concentration on a wet basis, the CEM system shall include provisions to determine the moisture content of the exhaust gas and an algorithm to enable correction of the monitoring results to a dry basis (0% moisture). Alternatively, the owner or operator may develop through manual stack test measurements a curve of moisture contents in the exhaust gas versus load for each allowable fuel, and use these typical values in an algorithm to enable correction of the monitoring results to a dry basis (0% moisture). Final results of the CEM system shall be expressed as ppmvd, corrected to 15% oxygen. The CEMS shall be used to demonstrate continuous compliance with the CEMS emission standards specified in these conditions. Each monitoring system shall be installed, calibrated, and properly functioning prior to the initial performance tests. Within one working day of discovering emissions in excess of a CO or NO_x standard (and subject to the specified averaging period), the Permittee shall notify the DEP Southwest District Office.

b. The NO_x monitors shall be certified and operated in accordance with the following requirements. The NO_x monitors shall be certified pursuant to 40 CFR Part 75 and shall be operated and maintained in accordance with the applicable requirements of 40 CFR Part 75, Subparts B and C. For purposes of determining compliance with the emission limits of condition 5 of this section, missing data shall not be substituted. Instead the block average shall be determined using the remaining hourly data in the 24 hour block. Record keeping and reporting shall be conducted pursuant to 40 CFR Part 75, Subparts F and G. The RATA tests required for the NO_x monitors shall be performed using EPA Method 20 or 7E, of

Appendix A of 40 CFR 60. Each NO_x monitor shall be a dual range monitor. The span for the lower range shall not be greater than 10 ppm, and the span for the upper range shall be set at a level that provides for accurate measurement during startups and shutdowns.

c. The CO monitors and O₂ or CO₂ monitor shall be certified and operated in accordance with the following requirements. The CO monitor shall be certified pursuant to 40 CFR 60, Appendix B, Performance Specification 4 or 4A. The O₂ or CO₂ monitor shall be certified pursuant to 40 CFR 60, Appendix B, Performance Specification 3. Quality assurance procedures shall conform to the requirements of 40 CFR 60, Appendix F, and the Data Assessment Report of section 7 shall be made each calendar quarter, and reported semi-annually to the Department's Southwest District Office. The RATA tests required for the CO monitors shall be performed using EPA Method 10, of Appendix A of 40 CFR 60. The Method 10 analysis shall be based on a continuous sampling train, and the ascarite trap may be omitted or the interference trap of section 10.1 may be used in lieu of the silica gel and ascarite traps. The CO monitors for EU 016 and 017 shall be dual range monitors. For EU 014 and 015 the span for the CO monitors' lower range for shall not be greater than 50 ppm, as corrected to 15% O₂. For EU 016 and 017 the span for the CO monitors' lower range for shall not be greater than 50 ppm, and the span for the upper range shall be set at a level that provides for accurate measurement during startups and shutdowns. The RATA tests required for the O₂ or CO₂ monitor shall be performed using EPA Method 3B, of Appendix A of 40 CFR 60. "Startup" and "shutdown" are defined at Rule 62-210.200, F.A.C. For purposes of this permit, startup includes "cold startup," which is defined as follows: "cold startup" is defined as a startup following a complete shutdown lasting a minimum of 48 hours.

d. NO_x, CO and O₂ or CO₂ emissions data shall be recorded by the CEMs systems during episodes of startup, shutdown and malfunction. NO_x and CO emissions data recorded during these episodes may be excluded from the block average calculated to demonstrate compliance with the emission limits of condition B.2. of this section as provided in this paragraph. Periods of data excluded for startup shall not exceed two hours in any block 24-hour period except for cold startup episodes. A cold startup is defined as a startup following a complete shutdown lasting a minimum of 48 hours. Periods of data excluded for cold startup shall not exceed four hours in any 24-hour block period. Periods of data excluded for shutdown shall not exceed two hours in any 24-hour block period. Periods of data excluded for malfunctions shall not exceed two hours in any 24-hour block period. All periods of data excluded for any startup, shutdown or malfunction episode shall be consecutive for each episode. Periods of data excluded for all startup, shutdown or malfunction episodes shall not exceed four hours in any 24-hour block period. The owner or operator shall minimize the duration of data excluded for startup, shutdown and malfunctions, to the extent practicable. Data recorded during startup, shutdown or malfunction events shall not be excluded if the startup, shutdown or malfunction episode was caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented.

e. Best operational practices shall be used to minimize hourly emissions that occur during episodes of startup, shutdown and malfunction. Emissions of any

quantity or duration that occur entirely or in part from poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented shall be prohibited.

f. A summary report of duration of data excluded from the block average calculation, and all instances of missing data from monitor downtime, shall be reported to the Department's Southwest District office semi-annually, and shall be consolidated with the report required pursuant to 40 CFR 60.7. For purposes of reporting "excess emissions" pursuant to the requirements of 40 CFR 60.7, excess emissions shall be defined as the hourly emissions which are recorded by the CEM system during periods of data excluded for episodes of startup, shutdown and malfunction, allowed above. The duration of excess emissions shall be the duration of the periods of data excluded for such episodes. Reports required by this paragraph and by 40 CFR 60.7 shall be submitted no less than semi-annually, including semi-annual periods in which no data is excluded or no instances of missing data occur.

g. Upon request from the Department, the CEMS emission rates shall be corrected to ISO conditions to demonstrate compliance with the applicable standards of 40 CFR 60.332.

h. Diluent Monitors for Power Block 3 and 4. The oxygen or carbon dioxide (CO₂) content of the flue gas shall be monitored at the location where CO and NO_x are monitored to correct the measured emissions rates to 15% oxygen. If a CO₂ monitor is installed, the oxygen content of the flue gas shall be calculated using F-factors that are appropriate for the fuel fired. Each monitor shall comply with the performance and quality assurance requirements of 40 CFR 75.

i. Moisture Correction for Power Block 3 and 4. Final results of the CEMS shall be expressed as ppmvd corrected to 15% oxygen. If the CEMS measures concentration on a wet basis, the CEMS shall include provisions to determine the moisture content of the exhaust gas and an algorithm to enable correction of the monitoring results to a dry basis (0% moisture). Alternatively, the Permittee may develop through manual stack test measurements a curve of moisture contents in the exhaust gas versus load for each allowable fuel, and use these typical values in an algorithm to enable correction of the monitoring results to a dry basis (0% moisture). If the CEMS measures concentration on a wet basis and the diluent monitor measures CO₂ on a wet basis, then the Permittee may develop an algorithm to enable correction of the CEMS results to a dry basis (0% moisture) without determining the corresponding moisture content.

j. 1-Hour Block Averages for Power Block 3 and 4. Hourly average values shall begin at the top of each hour. Each hourly average value shall be computed using at least one data point in each fifteen-minute quadrant of an hour, where the unit combusted fuel during that quadrant of an hour. Notwithstanding this requirement, an hourly value shall be computed from at least two data points separated by a minimum of 15 minutes (where the unit operates for more than one quadrant of an hour). If less than two such data points are available, the hourly average value is not valid. An hour in which any oil is fired is attributed towards

compliance with the permit standards for oil firing. The Permittee shall use all valid measurements or data points collected during an hour to calculate the hourly average values. The CEMS shall be designed and operated to sample, analyze, and record data evenly spaced over an hour.

k. 24-hour Block Averages for Power Block 3 and 4: A 24-hour block shall begin at midnight of each operating day and shall be calculated from 24 consecutive hourly average emission rate values. If a unit operates less than 24 hours during the block, the 24-hour block average shall be the average of available valid hourly average emission rate values for the 24-hour block. For purposes of determining compliance with the 24-hour CEMS emissions standards of this permit, missing (or excluded) data shall not be substituted. Instead, the 24-hour block average shall be determined using the remaining hourly data in the 24-hour block.

l. Data Exclusion for Power Block 3 and 4. Each CEMS shall monitor and record emissions during all operations including episodes of startup, shutdown, malfunction, fuel switches, and DLN tuning. CEMS emissions data recorded during some of these episodes may be excluded from the corresponding CEMS compliance demonstration subject to the provisions of Condition Nos. 13 and 14 of this section.

m. Availability for Power Block 3 and 4. Monitor availability for the CEMS shall be 95% or greater in any calendar quarter. The quarterly permit excess emissions report shall be used to demonstrate monitor availability. In the event 95% availability is not achieved, the Permittee shall provide the Department with a report identifying the problems in achieving 95% availability and a plan of corrective actions that will be taken to achieve 95% availability. The Permittee shall implement the reported corrective actions within the next calendar quarter. Failure to take corrective actions or continued failure to achieve the minimum monitor availability shall be violations of this permit, except as otherwise authorized by the Department.

10. Water Injection Monitoring Requirements for Power Block 3 and 4: In accordance with the manufacturer's specifications, the Permittee shall install, calibrate, operate and maintain a monitoring system to continuously measure and record the water-to-fuel ratio when firing distillate oil. The Permittee shall document the water-to-fuel ratio required to meet permitted emissions levels over the range of load conditions allowed by this permit. The NOx CEMS is used to demonstrate compliance with the NOx emissions standards. During NOx CEMS downtimes or malfunctions, the Permittee shall monitor the water-to-fuel ratio and operate at a level that is consistent with the documented flow rate for the gas turbine load condition.

11. Ammonia Monitoring Requirements: The Permittee shall install, calibrate, maintain and operate, in accordance with the meter manufacturer's specifications, an ammonia flow meter to measure and record the ammonia injection rate to the SCR system of each emissions unit. The Permittee shall document the general range of ammonia flow rates

required to meet emissions limitations over the range of combustion turbine load conditions allowed by this permit by comparing NOx emissions recorded by the NOx monitor with ammonia flow rates recorded using the ammonia flow meter. During NOx monitor downtimes or malfunctions, the owner or operator shall operate at the ammonia flow rate which is consistent with the documented flow rate for the combustion turbine load condition.

12. **Monitoring of Operation:** To demonstrate compliance with the fuel consumption and sulfur content limits of conditions XIII.A.,-XIII.B., XIII.C. and XIII.D. the owner or operator shall monitor and record the rates of consumption and sulfur content of each of the allowable fuels in accordance with the provisions of 40 CFR 75 Appendix D. To demonstrate compliance with the heat input limits of conditions XIII.A.,-XIII.B., XIII.C. and XIII.D. of this section, the owner or operator shall monitor and record the operating rate of each emissions unit on a daily average basis, considering the number of hours of operation during each day, including the duration of startup, shutdown and malfunction episodes. To demonstrate compliance with the 60% turbine capacity limit of condition 3 of this section, the owner or operator shall monitor and record the operating rate of each emissions unit on an hourly average basis for each operating hour, excluding the duration of episodes of startup, shutdown and malfunction that are permitted to be excluded pursuant to condition C.8. of this section. Such monitoring shall be made using a monitoring component of the CEM system required above, or by monitoring daily rates of consumption and heat content of each of the allowable fuels in accordance with the provisions of 40 CFR 75 Appendix D. For Emission Units 016 and 017, to demonstrate compliance with the fuel consumption limits of Condition No. C.6., the Licensee shall record the distillate fuel oil consumption on a rolling 12-month total basis. [Rules 62-4.070(3) and 62-212.400, F.A.C., and BACT]

13. **Frequency of Recordkeeping for units Power Block 2, 3, and 4:** The owner or operator shall maintain records required to demonstrate compliance with the 24-hour block emission limits of this certification on a daily basis. Within 24 hours of the conclusion of each operating day, the Permittee shall complete the calculations and record the results for that operating day.

D. NSPS Subpart GG Requirements

[Note: Inapplicable provisions of the Federal Permit have been deleted in the following conditions, but the numbering of the original rules has been preserved for ease of reference to the original rules. The term "Administrator" when used in 40 CFR 60 shall mean the Department's Secretary or the Secretary's designee. Department notes and requirements related to the Subpart GG requirements are shown in bold immediately following the section to which they refer. The rule basis for the Department requirements specified below is Rule 62-4.070(3), F.A.C.]

1. Pursuant to 40 CFR 60.332 Standard for Nitrogen Oxides:

a. On and after the date of the performance test required by § 60.8 is completed, every owner or operator subject to the provisions of this subpart as specified in

paragraph (b) section shall comply with:

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

$$\text{STD} = [0.0075 \times (14.4/Y)] + F$$

where: STD = allowable NOx emissions (percent by volume at 15 percent oxygen and on a dry basis).

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

F = NOx emission allowance for fuel-bound nitrogen as de-fined in paragraph a.(3) of this section.

(2) F shall be defined according to the nitrogen content of the fuel as follows:

Fuel-bound nitrogen (percent by weight)	F (NOx percent by volume)
$N \leq 0.015$	0
$0.015 < N \leq 0.1$	0.04 (N)
$0.1 < N \leq 0.25$	$0.004 + 0.0067 (N - 0.1)$
$N > 0.25$	0.005

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

Department requirement: While firing gas, the "F" value shall be assumed to be 0. [Note: This is required by EPA's March 12, 1993 determination regarding the use of NOx CEMS. The "Y" values provided by the applicant are approximately 9.5 for natural gas and 9.6 for fuel oil. The equivalent emission standards are 113.5 and 112.7 ppmvd at 15% oxygen. The NOx emission limit of this permit is more stringent than this requirement.]

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

2. Pursuant to 40 CFR 60.333 Standard for Sulfur Dioxide:

a. On and after the date on which the performance test required to be conducted by 40 CFR 60.8 is completed, every owner or operator subject to the provision of this

subpart shall comply with:

b. No owner or operator subject to the provisions of this subpart shall burn in any stationary gas turbine any fuel which contains sulfur in excess of 0.8 percent by weight.

3. Pursuant to 40 CFR 60.334 Monitoring of Operations:

The owner or operator of any stationary gas turbine subject to the provisions of this subpart shall monitor sulfur content and nitrogen content of the fuel being fired in the turbine. The frequency of determination of these values shall be as follows:

a. If the turbine is supplied its fuel from a bulk storage tank, the values shall be determined on each occasion that fuel is transferred to the storage tank from any other source.

Department requirement: The owner or operator is allowed to use vendor analyses of the fuel as received to satisfy the sulfur content monitoring requirements of this rule for fuel oil. Alternatively, if the fuel oil storage tank is isolated from the combustion turbines while being filled, the owner or operator is allowed to determine the sulfur content of the tank after completion of filling of the tank, before it is placed back into service.

b. If the turbine is supplied its fuel without intermediate bulk storage the values shall be determined and recorded daily. Owners, operators or fuel vendors may develop custom schedules for determination of the values based on the design and operation of the affected facility and the characteristics of the fuel supply. These custom schedules shall be substantiated with data and must be approved by the Department before they can be used to demonstrate compliance.

Department requirement: The requirement to monitor the nitrogen content of pipeline quality natural gas fired is waived. The requirement to monitor the nitrogen content of fuel oil fired is waived because a NO_x CEMS shall be used to demonstrate compliance with the NO_x limits of this permit. For purposes of complying with the sulfur content monitoring requirements of this rule, the owner or operator is allowed to determine the sulfur content of the pipeline quality natural gas semi-annually, because the owner or operator has the results of bimonthly and quarterly natural gas sulfur content analyses from the operation of the existing Power Block 1.

c. For the purpose of reports required under 40 CFR 60.7(c), periods of excess emissions that shall be reported are defined as follows:

(1) Nitrogen oxides. Any one-hour period during which the average water-to-fuel ratio, as measured by the continuous monitoring system, falls below the water-to-fuel ratio determined to demonstrate compliance with 40 CFR 60.332 by the performance test required in § 60.8 or any period during which the fuel-bound nitrogen of the

fuel is greater than the maximum nitrogen content allowed by the fuel-bound nitrogen allowance used during the performance test required in § 60.8. Each report shall include the average water-to-fuel ratio, average fuel consumption, ambient conditions, gas turbine load, and nitrogen content of the fuel during the period of excess emissions, and the graphs or figures developed under 40 CFR 60.335(a).

Department requirement: NO_x emission monitoring by CEM system shall substitute for the requirements of paragraph (c)(1) because a NO_x monitor shall be used to demonstrate compliance with the BACT NO_x limits of this permit. Data from the NO_x monitor shall be used to determine "excess emissions" for purposes of 40 CFR 60.7 as described in condition 7 of this section.

Department requirement: NO_x and CO monitor availability shall not be less than 95% in any calendar quarter. The report required by condition XIII.B.7. of this section shall be used to demonstrate monitor availability. In the event 95% availability is not achieved, the owner or operator shall provide the Department with a report identifying the problems in achieving 95% availability and a plan of corrective actions that will be taken to achieve 95% availability. The owner or operator shall implement the reported corrective actions within the next calendar quarter.

[Note: As required by EPA's March 12, 1993 determination, the NO_x monitor shall meet the applicable requirements of 40 CFR 60.13, Appendix B and Appendix F for certifying, maintaining, operating and assuring the quality of the system; shall be capable of calculating NO_x emissions concentrations corrected to 15% oxygen; shall have no less than 95% monitor availability in any given calendar quarter; and shall provide a minimum of four data points for each hour and calculate an hourly average. The requirements for the CEMS specified by the specific conditions of this permit satisfy these requirements.]

(2) Sulfur dioxide. Any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8 percent.

4. Pursuant to 40 CFR 60.335 Test Methods and Procedures:

a. To compute the nitrogen oxides emissions, the owner or operator shall use analytical methods and procedures that are accurate to within 5 per-cent and are approved by the Administrator to determine the nitrogen content of the fuel being fired.

b. In conducting the performance tests required in 40 CFR 60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided for in 40 CFR 60.8(b). Acceptable alternative methods and procedures are given in paragraph (f) of this section.

c. The owner or operator shall determine compliance with the

nitrogen oxides and sulfur dioxide standards in 40 CFR 60.332 and 60.333(a) as follows:

(1) The nitrogen oxides emission rate (NO_x) shall be computed for each run using the following equation:

$$\text{NO}_x = (\text{NO}_{x0}) (\text{Pr}/\text{Po})^{0.5} e^{19(\text{Ho}-0.00633)} (288^\circ\text{K}/\text{Ta})^{1.53}$$

where:

NO_x = emission rate of NO_x at 15 percent O₂ and ISO standard ambient conditions, volume percent.

NO_{x0} = observed NO_x concentration, ppm by volume.

Pr = reference combustor inlet absolute pressure at 101.3 kilopascals ambient pressure, mm Hg.

Po = observed combustor inlet absolute pressure at test, mm Hg.

Ho = observed humidity of ambient air, g H₂O/g air.

e = transcendental constant, 2.718.

Ta = ambient temperature, °K.

Department requirement: The owner or operator is not required to have the NO_x monitor required by this permit continuously calculate NO_x emissions concentrations corrected to ISO conditions. However, the owner or operator shall supply information sufficient to demonstrate compliance with the NSPS NO_x emission limit when requested by the Department.

(2) The monitoring device of 40 CFR 60.334(a) shall be used to determine the fuel consumption and the water-to-fuel ratio necessary to comply with 40 CFR 60.332 at 30, 50, 75, and 100 percent of peak load or at four points in the normal operating range of the gas turbine, including the minimum point in the range and peak load. All loads shall be corrected to ISO conditions using the appropriate equations supplied by the manufacturer.

Department requirement: The owner or operator is allowed to conduct initial performance tests at a single load because a NO_x monitor shall be used to demonstrate compliance with the BACT NO_x limits of this permit.

(3) Method 20 shall be used to determine the nitrogen oxides, sulfur dioxide, and oxygen concentrations. The span values shall be 300 ppm of nitrogen oxide and 21 percent oxygen. The NO_x emissions shall be determined at each of the load conditions specified in paragraph (c)(2) of this section.

Department requirement: The owner or operator is allowed to make the initial compliance demonstration for NO_x emissions using certified CEM system data, provided that compliance be based on a minimum of three test runs representing a total of at least three hours of data, and that the CEMS be calibrated in accordance with the procedure in section 6.2.3 of Method 20 following each run. Alternatively, initial compliance may be demonstrated using data collected during the initial relative accuracy test audit (RATA) performed on the NO_x monitor. The span value specified in condition 7 of this section shall be used instead of the span value of 300 ppm specified by paragraph (3) above.

[Note: These initial compliance demonstration requirements are consistent with guidance from EPA Region 4. The span value is changed pursuant to Department authority and is consistent with guidance from EPA Region 4.]

d. The owner or operator shall determine compliance with the sulfur content standard in 40 CFR 60.333(b) as follows: ASTM D 2880-71 shall be used to determine the sulfur content of liquid fuels and ASTM D 1072-80, D 3031-81, D 4084-82, or D 3246-81 shall be used for the sulfur content of gaseous fuels (incorporated by reference – see 40 CFR 60.17). The applicable ranges of some ASTM methods mentioned above are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of the dilution ratio) may be used, subject to the approval of the Administrator.

Department requirement: Condition XIII.C.11. of this section requires the owner or operator to follow the requirements of 40 CFR 75 Appendix D to determine the sulfur content of liquid fuels.

[Note: This requirement establishes different analysis methods than provided by paragraph (d) above, but the requirements are equally stringent and will ensure compliance with this rule.]

e. To meet the requirements of 40 CFR 60.334(b), the owner or operator shall use the methods specified in paragraphs (a) and (d) of this section to determine the nitrogen and sulfur contents of the fuel being burned. The analysis may be performed by the owner or operator, a service contractor retained by the owner or operator, the fuel vendor, or any other qualified agency.

[Note: The fuel analysis requirements of condition XIII.C.11. of this section meet or exceed the requirements of this rule and will ensure compliance with this rule.]

E. Monitoring Requirements

For each combined cycle unit, the Permittee shall install, operate, and maintain a continuous emission monitoring system (CEMS) (in accordance with 40 CFR 60, Appendix F or 40 CFR 75) or use other DEP approved alternate methods to monitor nitrogen oxides and, if necessary, a diluent gas (CO₂ or O₂). The Federal Acid Rain Program requirements of 40 CFR 75 shall apply when those requirements become effective for the CTs.

1. Each CEMS shall meet performance specifications of 40 CFR 60, Appendix B or 40 CFR 75.

2. CEMS data shall be recorded and reported in accordance with 40 CFR 60 Appendix A and Subpart GG and 40 CFR 75. The record shall include periods of start up, shutdown, and malfunction. Compliance with conditions XIII B.1. B.2. and C.1. for NOX shall be determined by CEMS on a mass emission rate basis (LB/HR) using EPA Method 19 and hourly averaged heat inputs (MMBtu/hr).

3. A malfunction means any sudden and unavoidable failure of air pollution control equipment or process equipment to operate in a normal or usual manner. Failures that are caused entirely or in part by poor maintenance, careless operation or any other preventable upset condition or preventable equipment breakdown shall not be considered malfunctions.

4. The procedures under 40 CFR 60.13 and 40 CFR 75 shall be followed for installation, evaluation, and operation of all CEMS.

5. For purposes of the reports required under this permit, excess emissions are defined as any calculated average emission rate, as determined pursuant to Condition XIII.B.3. herein, which exceeds the applicable emission limits in Conditions XIII.B.1., B.2. or XIII.C.7.

F. Notification, Reporting and Recordkeeping

1. To determine compliance with the natural gas and fuel oil firing heat input limitation; PEF shall maintain daily records of natural gas and fuel oil consumption for each turbine and the heating value for each fuel. All records shall be maintained for a minimum of two years after the date of each record and shall be made available to representatives of the Department upon request.

2. The project shall comply with all the applicable requirements of Chapter 62, F.A.C., and 40 CFR 60 Subparts A, GG, Dc, and Kb. The requirements shall include:

a. 40 CFR 60.7(a)(1) - By postmarking or delivering notification of the start of construction no more than 30 days after such date.

b. 40 CFR 60.7(a)(2) - By postmarking or delivering notification of the anticipated date of the initial startup of each CT and the auxiliary steam boiler not less than 30 days prior to such date.

c. 40 CFR 60.7(a)(3) - By postmarking or delivering notification of the actual startup of each turbine and the auxiliary steam boiler within 15 days after such date.

d. 40 CFR 60.7(a)(5) - By postmarking or delivering notification of

the date for demonstrating the CEMS performance, no less than 30 days prior to such date.

e. 40 CFR 60.7(a)(6) - By postmarking or delivering notification of the anticipated date for conducting the opacity observations no less than 30 days prior to such date.

f. 40 CFR 60.7(b) - By initiating a recordkeeping system to record the occurrence and duration of any start up, shutdown or malfunction of a turbine and the auxiliary steam boiler, of any malfunction of the air pollution control equipment, and the periods when the CEMS is inoperable.

g. 40 CFR 60.7(c) - By postmarking or delivering a quarterly excess emissions and monitoring system performance report within 30 days after the end of each calendar quarter. This report shall contain the information specified in 40 CFR 60.7(c) and (d). When firing natural gas or fuel oil in the combustion turbines, the NOX CEMS shall be used in lieu of the water/fuel monitoring system and fuel bound nitrogen (FBN) monitoring required for reporting excess emissions in 40 CFR 60.334(c)(1) (1997 version). The calibration of the water/fuel monitoring device required in 40 CFR 60.335 (c)(2) (1997 version) will be replaced by the 40 CFR 75 certification tests of the NOX CEMS. Upon request from DEP, the CEMS emission rates for NOX shall be corrected to ISO conditions to demonstrate compliance with the NOx standard established in 40 CFR 60.332.

h. A custom fuel monitoring schedule pursuant to 40 CFR 75 Appendix D for natural gas may be used in lieu of the daily sampling requirements of 40 CFR 60.334 (b)(2) provided the following requirements are met:

(1) The Permittee shall apply for an Acid Rain permit within the deadlines specified in 40 CFR 72.30.

(2) The Permittee shall submit a monitoring plan, certified by signature of the Designated Representative (DR), that commits to using a primary fuel of pipeline supplied natural gas (sulfur content less than 20 gr/100 scf pursuant to 40 CFR 75.11(d)(2)).

(3) Each unit shall be monitored for SO2 emissions using methods consistent with the requirements of 40 CFR 75 and certified by the USEPA. This custom fuel monitoring schedule will only be valid when pipeline natural gas is used as a primary fuel. If the primary fuel for these units is changed to a higher sulfur fuel, SO2 emissions must be accounted for as required pursuant to 40 CFR 75.11(d).

i. 40 CFR 60.8(a) - By conducting all performance tests within 60 days after achieving the maximum turbine and boiler firing rates, but not more than 180 days after the initial start up of each CT and the auxiliary boiler.

j. 40 CFR 60.8(d) - By postmarking or delivering notification of the date of each performance test required by this permit at least 30 days prior to the test date; and,

k. Rule 62-297.310(6), F.A.C. - By providing stack sampling facilities where necessary.

All notifications and reports required by this specific condition shall be submitted to the Department's Air Program, within the Southwest District office. Performance test results shall be submitted within 45 days of completion of such test.

3. The following information shall be submitted to the Department's Bureau of Air Regulation within 90 days after selection of each, respectively:

a. Description of the final selection of the turbines, the auxiliary steam boiler and diesel generator for installation at the facility. Descriptions shall include the specific make and model numbers, any changes in the proposed method of operation, fuels, emissions or equipment.

b. Description of the CEMS selected. Description shall include the type of sensors, the manufacturer and model number of the equipment.

4. The following protocols shall be submitted to the Department's Air Program, within the Southwest District office, for approval:

a. CEMS Protocol - Within 60 days after selection of the CEMS, but prior to the initial startup, a CEMS protocol describing the system, its installation, operating and maintenance characteristics and requirements. The protocol shall meet the requirements of 40 CFR 60.13, 40 CFR 60 Appendix B and Appendix F or 40 CFR 75. The Federal Acid Rain Program requirements of 40 CFR 75 shall apply when those requirements become effective within the state.

b. Performance Test Protocol - At least 30 days prior to conducting the initial performance tests required by this permit, PEF shall submit to the Department's Air Program, within the Southwest District office, a protocol outlining the procedures to be followed, the test methods and any differences between the reference methods and the test methods proposed to be used to verify compliance with the conditions of this permit. The Department shall approve the testing protocol provided that it meets the requirements of this permit.

5. Frequency of Recordkeeping: Condition No. XIII.C.8. requires the calculation of one or more 24-hour block average emission rates for each operating day. Within 24 hours of the conclusion of each operating day, the permittee shall complete the calculations and record the results for that operating day. [Rule 62-4.070(3), F.A.C.]

6. Fuel Sulfur Records: The permittee shall demonstrate compliance with

the fuel sulfur limits specified in these conditions by maintaining the following records of the sulfur contents.

a. Compliance with the fuel sulfur limit for natural gas shall be demonstrated by keeping reports obtained from the vendor indicating the average sulfur content of the natural gas being supplied from the pipeline for each month of operation. Methods for determining the sulfur content of the natural gas shall be ASTM methods D4084-82, D3246-81 or more recent versions.

b. Compliance with the distillate oil sulfur limit shall be demonstrated by taking a sample, analyzing the sample for fuel sulfur, and reporting the results to each Compliance Authority before initial startup. Sampling the fuel oil sulfur content shall be conducted in accordance with ASTM D4057-88, Standard Practice for Manual Sampling of Petroleum and Petroleum Products, and one of the following test methods for sulfur in petroleum products: ASTM D129-91, ASTM D1552-90, ASTM D2622-94, or ASTM D4294-90. More recent versions of these methods may be used. For each subsequent fuel delivery, the permittee shall either (1) maintain a permanent file of the certified fuel sulfur analysis from the fuel vendor, or (2) take and analyze a sample according to the above procedures and maintain a permanent file of the results of the analysis. At the request of a Compliance Authority, the permittee shall perform additional sampling and analysis for the fuel sulfur content. The above methods shall be used to determine the fuel sulfur content in conjunction with the provisions of 40 CFR 75 Appendix D. [Rules 62-4.070(3) and 62-4.160(15), F.A.C.]

7. Malfunction Notification: Within one working day of a malfunction for which CEMS data is excluded pursuant to Condition No. 13 of this section, the permittee shall notify the Compliance Authority by telephone, facsimile transmittal, or electronic mail. The notification shall include a preliminary report of: the nature, extent, and duration of the emissions; the probable cause of the emissions; and the actions taken to correct the problem. If requested by the Compliance Authority, the permittee shall submit written quarterly reports summarizing the malfunctions in lieu of the individual malfunction notifications otherwise required. [Rule 62-210.700, F.A.C.]

8. Semiannual NSPS Excess Emissions Report: In accordance with 40 CFR 60.7(c), the permittee shall semiannually submit a report to the Compliance Authority summarizing any emissions in excess of the NSPS standards. All reports shall be postmarked by the 30th day following the end of each six-month period. Written reports of excess emissions shall include the information specified in 40 CFR 60.7(c)(1) through (c)(4). For purposes of reporting emissions in excess of NSPS Subpart GG, excess emissions from the gas turbine are defined as: any CEMS hourly average value exceeding the NSPS NO_x emission standard identified in Appendix GG (i.e., 112.5 ppmvd corrected to 15% oxygen for both natural gas and fuel oil); and any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeds the NSPS standard identified in Appendix GG (i.e., sulfur in excess of 0.8% by weight).

9. Quarterly Data Exclusion and Monitor Availability Report: The permittee shall quarterly submit a report to the DEP SW District Office summarizing all periods of valid hourly CO and NOx emissions data excluded from the 24-hour block average compliance determinations pursuant to Condition Nos. XIII.C.11 and 12. In addition, the quarterly report shall summarize the CEMS availability for the previous quarter. All reports shall be postmarked by the 30th day following the end of each calendar quarter. An example of an acceptable report format for monitoring systems availability is provided in Appendix XS. [Rules 62-4.130, 62-204.800, 62-210]

G. Modifications

PEF shall give written notification to the Department when there is any modification to this facility. This notice shall be submitted sufficiently in advance of any critical date involved to allow sufficient time for review, discussion, and revision of plans, if necessary. Such notice shall include, but not be limited to, information describing the precise nature of the change, modifications to any emission control system, production capacity of the facility before and after the change, and the anticipated completion date of the change.

XIV. SURFACE WATER DISCHARGES

A. Plant Effluents

PEF shall not discharge any cooling system, demineralizer regeneration, floor drainage, treated sewage, or other process wastewaters resulting from the operation of the Hines Energy Complex facility into any surface waters of the state.

B. Reporting of Critical Spills

PEF shall report all critical (having potential to significantly pollute surface or ground waters) spills of regulated liquid or regulated liquid-solid materials, not confined to a building, curbed impervious surface, or similar containment structure, to the Department by phone immediately after the discovery and submit written report within 48 hours, excluding weekends, from the original notification. The written report shall include, but not be limited to, a detailed description of how the spill occurred, the name and chemical make-up (include any MSDS sheet) of the substance, the amount spilled, the time and date of the spill, the name and title of the person who first-reported the spill, the areal-size of the spill and surface types (impervious, ground, water bodies, etc.) it impacted, the cleanup procedures taken and status of completion, and include a map or aerial photograph showing the extent and paths of the material flow. Any deviation from this requirement must receive prior approval from the Department.

XV. DOMESTIC WASTEWATER TREATMENT

A. No portion of the domestic wastewater collection and transmission system,

treatment plant or reuse/disposal system, excluding the cooling pond, may be constructed without prior written approval from the Department. Construction of any portion of the domestic wastewater facility without the prior written approval of the Department will be considered a violation of the Conditions of Certification.

B. In order to obtain approval to construct a domestic wastewater treatment plant and reuse/disposal system, excluding the cooling pond, the following forms, reports, plans and data as applicable, properly executed and appropriately signed and sealed by an engineer registered in the state of Florida must be submitted to the Department at least one hundred eighty (180) days prior to proposed date for commencement of construction:

1. The preliminary design report in accordance with Rule 62-600.715, F.A.C., and the Engineering Report required by Rule 62-610.310, F.A.C. (Minimum Class III Reliability features must be indicated. A Reduced Pressure Zone Backflow Preventer must be designated for potable water isolation.);
2. DEP Form 62-604.900(1), Application to Construct a Domestic Wastewater Collection system, with supporting documents;
3. DEP Form 62-600.910(1), Application to Construct a Domestic Wastewater Facility, with documentation;
4. DEP Form 62-610.910(1), Application to Construct a Reuse/Land Application System, with documentation;
5. DEP Form 62-640(1), Agricultural Use Plan, or DEP Form 62-640(2), Dedicated Disposal Site Plan, with documentation;
6. 8-1/2" x 11" copies of:
 - a. WWTP and effluent site locations;
 - b. sludge disposal site, indicating all public or private drinking water wells within 0.5 miles;
 - c. road map, or drawing of roads leading to the WWTP; and,
 - d. flow process diagram, showing all piping, and planar and volumetric data.
7. Ground water monitoring plan proposal, i.e., to proposed reuse/disposal plan.

C. Department approval for construction of this domestic wastewater facility must be

requested no earlier than 24 months nor later than six months prior to construction of that facility.

D. This approval is subject to the non-procedural provisions of Chapter 403, F.S. and F.A.C. Rules 62-3, 62-4, 62-300, 62-500 and 62-600 Series. PEF will be approved to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents, attached thereto or on file with the Department and made a part thereof and specifically described in the application.

E. The zone of discharge boundary and water quality compliance requirements are as specified in Condition of Certification XVIII.

F. Operation staffing will be in accordance with Chapter 62-699, F.A.C.

G. The discharge from the chlorine contact chamber shall be sampled in accordance with Chapter 62-601, F.A.C., and shall meet the limitations designated by the Department. They will include the following parameters: pH, CBOD5, TSS, Nitrate (N), total chlorine residual, FC and Flow.

H. The sludge shall be sampled after final treatment in accordance with Rule 62-640.700(1)(b), F.A.C., but prior to land application for the parameters listed below every twelve (12) months. A copy of the analyses shall be submitted with the monthly operation report for the following parameters:

Total Nitrogen	% dry weight
Total Phosphorus	% dry weight
Total Potassium	% dry weight
Cadmium	mg/kg dry weight
Copper	mg/kg dry weight
Lead	mg/kg dry weight
Nickel	mg/kg dry weight
Zinc	mg/kg dry weight
PH	standard units
Total Solids	%

I. Direct discharge from the reuse-disposal system to area surface waters of the state is not allowed. Surface discharge to such waters shall be considered a violation of this approval and PEF shall immediately report any such discharge to the Southwest District office of the Department of Environmental Protection.

J. PEF shall comply with all provisions of Chapter 62-640, F.A.C., and shall report any noncompliance or changes from the approved site plan to the Department.

K. Upon completion of construction PEF shall submit two (2) copies of the

Certificate of Completion of Construction [DEP Form 62-1.205(3)] signed and sealed by a registered engineer, to the DEP Southwest District office. Upon completion of construction and prior to placing the treatment plant or effluent disposal system into operation for any purpose other than testing for leaks and equipment operation, PEF shall submit a Notification That a Domestic Wastewater Facility Will Be Placed Into Operation [DEP Form 62-600.910(3)] and, if applicable, submit an Application to Place a Public Access Reuse System in Operation [DEP Form 62-610.910(3)], signed and sealed by a Registered Engineer, to the DEP Southwest District office.

L. PEF shall provide an approved flow measurement device on the sewage treatment plant to monitor the influent (ahead of any return flows) and/or effluent flow, as appropriate. For plants with design flow equal to or greater than 0.100 MGD, flow measurement shall be with a flow meter equipped with a recorder and an integrator or totalizer. The flow measurement device shall be calibrated at least annually, with evidence of calibration kept at the site of flow measurement, and submitted to the Department upon request.

M. PEF shall provide a weatherproof location for an on-site logbook to monitor the daily activities of the certified operator. This logbook shall record sign in/out times of the certified operator, list any maintenance performed and contain the signature and certification number of the operator.

N. PEF shall maintain all audible and visual alarm systems on the lift station(s) in operating condition at all times.

O. A reduced pressure zone backflow preventer shall be installed on any potable water supply to the treatment facility. No potable water outlet intended for human contact shall be located down-line of the backflow preventer.

P. The disinfection system shall be operated to maintain a minimum chlorine residual of 1.0 mg/L at the outfall from the chlorine contact chamber. A metering device for dosing chlorine to the effluent shall be utilized and the chlorine supply tank shall be inspected regularly to ensure proper operation.

Q. Daily checks of the plant shall be performed by PEF or supplier, or its representative or agent, five (5) days per week for all Class C and D plants pursuant to Rule 62-699.311(1), F.A.C.

R. PEF shall ensure that the construction and operation of this facility shall be as described in the application and supporting documents. Any change to this approval shall be submitted in writing to the Domestic Wastewater Program Manager for review and clearance prior to implementation. Changes of negligible impact to the environment and staff time will be reviewed by the Program Manager, cleared when appropriate and incorporated into this approval. Changes or modifications other than those described above and those addressed in a supplemental application or modification of site certification will require submission of a

completed application and appropriate processing fee as per Section 62-4.050, F.A.C.

XVI. DRINKING WATER FACILITIES

A. Prior Approval

1. No portion of the potable water supply system or any portion of a water supply system that will be or is intended to be converted to potable water use at a later date may be constructed without prior written approval from the Department. Construction of any portion of the potable water supply system without the prior written approval of the Department will be considered a violation of the Conditions of Certification. Reference: F.A.C. Rules 15-555.350, .520(1), and (2).

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

a. A completed and fully executed "Application to Construct a Public Drinking Water System" form which complies with the requirements of the nonprocedural rules and regulations of the Department in effect as of the date that the request for approval to commence construction of the system is made to the Department. Reference: F.A.C. Rules 62-4.050 and 62-555.500 and .520.

b. Copy of the well driller's well completion report for each well to be used as a potable water supply well. Reference: F.A.C. Rules 62-4.050 and 62-555.315, .520, and .530.

c. Complete water quality analysis of the raw water from each individual well to be used as a potable-water supply well. Analysis of composite samples will not be accepted. The analysis must include all water parameters required for the classification of the water supply system being proposed pursuant to the rules and regulations of the Department in effect as of the date that the request for approval to construct the system is made to the Department. Each individual analysis must have been performed by a laboratory certified by the state to perform that particular potable water quality analysis and must have an analysis date within one (1) year of the date that the request for approval to construct the water supply system is made to the Department. Reference: F.A.C. Rules 62-4.050, 62-555.520 and .530, and 62-550.200(43), .300, .330, .400, .521(3), .550(3)(e), and .730(1) and (2).

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

construct is made to the Department. Reference: F.A.C. Rules 62-4.050, 62-555.520 and .530, and 21H-23

e. Complete engineering drawings of the entire proposed potable water supply system for which approval to construct is being requested. The drawings must demonstrate full compliance with all applicable nonprocedural rules and -regulations of the Department in effect as of the date that the request is made to the Department for approval to construct the system. The drawings must be signed and sealed by an engineer registered in the state of Florida. Reference: F.A.C. Rules 62-4.050, 62-555.520, 62-555.530, and 21H-23.

3. In order to obtain approval to construct an onsite water supply system where the potable water is to be supplied by an off-site public water supply system, the following information must be submitted to the Department no earlier than eighteen (18) months prior to or later than six months prior to the date that the water supply system is proposed for construction: in that letter as being required to be submitted with the request for clearance, as well as any information required for clearance of a potable water supply system contained in applicable rules and regulations of the Department in effect as of the date that the request for clearance is made. Reference: F.A.C. Rule 62-555.345 and .910.

a. A completed and fully executed application form which complies with the nonprocedural requirements of the rules and regulations of the Department in effect as of the date that the request for approval to construct the system is made to the Department; however, the Department will not accept "An Intent to Use a General Permit" for this project. Reference: F.A.C. Rules 62-4.050, 62-555.500, .520, and .530.

b. Complete specifications for the material and workmanship covering the entire potable water supply system for which the request for approval to construct is being made. The specifications must be signed and sealed by an engineer registered in the state of Florida and must provide documentation that the material and workmanship will comply with all applicable nonprocedural rules of the Department in effect as of the date that the request for approval to construct is made to the Department. Reference: F.A.C. Rules 62-4.050, 62-555.520, 62-555.530, and 21H-23.

c. Complete engineering drawings of the entire proposed potable water supply system for which approval to construct is being made. The drawings must demonstrate full compliance with all applicable nonprocedural rules and regulations of the Department in effect as of the date that the request for approval to construct is made to the Department. The drawings must be signed and sealed by an engineer registered in the state of Florida. Reference: F.A.C. Rules 62-4.050, 62-555.520, 62-555.530, and 21H-23.

d. Signed and sealed comprehensive engineering report on the potable water supply system which fully describes that project and basis of design. The report must include design data and such pertinent data to give an accurate understanding of the work to be undertaken and must provide supporting documentation that the potable water system as

proposed will comply with all applicable nonprocedural rules and regulations of the Department in effect as of the date that the request for approval to construct the water supply system is made to the Department. Reference: F.A.C. Rules 62-4.050, 62-555.520, 62-555.530, and 21H-23.

e. Documentation that the public water supply system supplying the water has the capacity in its water treatment system to serve the project and that the existing water transmission line from that system's water treatment plant to the point of connection with water supply system PEF is proposing to construct has been designed and sized to provide sufficient water to meet the demand of the PEF project. Reference: F.A.C. Rules 62-4.050, 62-555.350, 62-555.520, and 62-555.530.

4. Prior to submitting any information to the Department for review of the proposed potable water supply system, all wells that are proposed for use as potable water supply wells and that will be included in the request for approval to construct the water supply system must have been constructed and fully developed with a temporary pump. All water samples for analysis of the water quality parameters that must be submitted with the request for approval to construct the water supply system must be collected using the temporary well pump. The temporary pump must be removed from each well once the well has been fully developed and the water samples collected. The well must be properly capped upon removal of the temporary pump until written approval to construct the potable water supply system has been issued by the Department. Reference: F.A.C. Rules 62-555.500, 62-555.520, and 62-555.530.

5. The information submitted in support of the request to construct the water supply system will be reviewed for completeness by the Department within thirty (30) days of receipt. If the submittal is determined to be incomplete, the Department will provide written notice to PEF of the deficiencies in their request. F.A.C. Rule 62-4.055 and Section 120.60, F.S.

6. PEF must submit all information necessary to complete the request for approval to construct the potable water system within thirty (30) days of receipt of the Department's written notification that their submittal was incomplete. Reference: Section 120.60, F.S.

7. The Department will be unable to approve for construction any water supply system that does not meet both the submittal and the reasonable assurance requirements of the nonprocedural rules and regulations of the Department in effect as of the date that the request for approval to construct was made. Reference: F.A.C. Rules 62-4.070 and 62-555.530.

8. The Department will be unable to approve for construction any water supply system which is to be served by an off-site public water supply system if that off-site system does not have the capacity in the water treatment system and/or in the water transmission system to serve the project or if there is no existing off-site system. Reference: F.A.C. Rules 62-4.070 and 62-555.530.

9. The Department will, within ninety (90) days from the date that the

request for approval to construct the potable water supply system was deemed complete, either issue written approval for the construction of that system or notify PEF that their request did not meet the standards for approval pursuant to the nonprocedural rules and regulations of the Department in effect as of the date that the request for approval was submitted. Should the Department be unable to approve the construction of the water supply system, the reason(s) for that determination will be included in the written notice to PEF. Within ninety (90) days of the receipt of the Department's notice that the proposed water supply system did not meet the standards for approval, PEF must submit all information necessary to provide the reasonable assurance necessary for approval of the original water supply system. If PEF finds that they cannot provide the reasonable assurance required pursuant to the rules and regulations of the Department for the potable water supply system as originally designed, PEF will have to submit to the Department a new request for approval to construct a system for which they are able to meet the nonprocedural submittal and reasonable assurance requirements. The new request will be subject to the nonprocedural submittal and reasonable assurance requirements established in the rules and regulations of the Department in effect as of the date that the new request is made to the Department and will be subject to the same review schedule as that for PEF's original request for approval. Reference: F.A.C. Rules 62-4.070, 62-555.530, and Section 120.60, F.S.

B. Construction

1. PEF must retain the services of a project engineer registered in the state of Florida to observe that the construction of the water supply system is in accordance with the plans and specifications approved by the Department. The project engineer will be responsible for certifying to the Department that he/she observed the construction and that the construction conformed to the plans and specifications approved by the Department. Reference: F.A.C. Rule 62-555.520.

2. The Department must be notified in writing and prior written approval obtained for any changes, modification, or revision to be made to the project during construction. If there are any changes, modification, or revision made to a project approved by the Department without this prior written approval, the project will be considered to have been constructed without Departmental approval, the construction will not be cleared for service, and the construction will be considered a violation of the Conditions of Certification. Reference: F.A.C. Rule 62-555.530.

3. The approval to construct the potable water supply system will be in effect for one (1) year from the date of issuance. All construction of the potable water supply system must be completed within this one (1) year period unless a written request for an extension of this date is made to the Department at least sixty (60) days prior to the expiration of the construction approval and written approval for an extension of the expiration date is issued by the Department. The expiration date of the construction approval may be extended on a year-by-year basis; however, under no circumstances will the approval to construct the water supply system be extended beyond three (3) years from the date of the earliest water quality analysis unless the request for an extension of the expiration date is accompanied by an analysis of the

raw water from each well for each water quality parameter required pursuant to the requirements of the rules and regulations of the Department in effect as of the date that the request for the extension is made. Such an analysis shall be made for each new well added to the potable water system after the initial system is constructed and approved. The water quality analysis report submitted with this request must have an analysis date no earlier than one year from the date that the request for an extension of the expiration date is made, must have been performed by a laboratory certified by the state to perform the analysis, and contain no water quality violations other than those which the water supply system was originally designed to address. The maximum length of time that the approval for the construction of the potable water system may be in effect is five (5) years from the date of the original approval. Should the construction of the water supply system not be completed within that five (5) year period, should PEF have failed to request a timely extension of the approval expiration date, or should any water quality analysis submitted with the request for an extension of the expiration date demonstrate a presence of a contaminant which the water treatment plan was not originally designed to handle, PEF will have to make new request to the Department for approval to construct the potable water system. That request must meet the nonprocedural submittal and approval requirements of the rules of the Department in effect as of the date that the request for approval is submitted and will be subject to the same review schedule as the original request. Reference: F.A.C. Rules 62-4.050 and 62-555.530.

C. Operation

1. No portion of the potable water supply system constructed pursuant to this certification may be placed into service without the prior written approval of the Department. Placing any portion of the potable water supply system into service prior to receipt of this written approval will be considered as a violation of the Conditions of Certification. Reference: F.A.C. Rules 62-555.315, .340, and .345.

2. The Department will not issue approval to place the potable water supply system or any portion of that system into service unless the construction of the system or portion thereof had been approved for construction by the Department prior to the commencement of that construction. Reference: F.A.C. Rule 62-555.520.

3. In order to obtain approval to place the potable water supply system into service, PEF must make a written request for clearance to the Department. The request must be in the form and/or manner stipulated in the letter authorizing construction of the potable water supply system and must include all information stipulated in that letter as being required to be submitted with the request for clearance, as well as any information required for clearance of a potable water supply system contained in applicable rules and regulations of the Department in effect as of the date that the request for clearance is made. Reference: F.A.C. Rule 62-555.345 and .910.

4. The Department will issue a letter of clearance to place the water supply system into service within thirty (30) days of receipt of a written request for clearance provided

that the request is accompanied by all necessary supporting documentation and meets the criteria for clearance contained in the applicable nonprocedural rules and regulations of the Department in effect as of the date that the request for clearance was made. Reference: Section 120.60, F.S.

5. All construction or activity taking place in the vicinity of the potable water supply wells must conform with the setback distances from a potable water supply well established in the rules of the Department at the time that the construction or activity is proposed and must be coordinated with the Department. Reference: F.A.C. Rules 62-555.310 and 62-555.312.

6. PEF must provide, in accordance with applicable state rules, a certified water treatment plant operator who meets the staffing requirement for the type and capacity of the water treatment system cleared for service. Reference: F.A.C. Rules 62-555.350, 62-602.400, and 62-699.

7. The water meter at the potable water treatment plant(s) must be read at approximately the same time each day, seven days per week or continuously recorded, and both the meter reading and the gallons of water pumped to distribution recorded in the plant log. Reference: F.A.C. Rules 62-555.350, 62-555.910 and 62-602.360.

8. The certified water treatment plant operator must submit a report on the operating of the water treatment plant(s) to the Department monthly in the manner required by the rules and regulations of the Department. Reference: F.A.C. Rules 62-555.910 and 62-603.360.

9. The drinking water must be analyzed for all applicable water quality parameters to the degree and frequency required by the rules and regulations of the Department. The analysis must be performed in accordance with these rules and regulations and submitted to the Department in the format required by these rules and regulations. Reference: F.A.C. Rules 62-550 and 62-555.355.

10. The one-day maximum day demand for the period of time covering the most recent twelve (12) months of operation of the water treatment plant may not exceed the capacity of the water treatment plant approved for construction and cleared for use by the Department. Should the demand on any one day during this twelve (12) month period exceed the capacity of the water treatment plant, this will be considered as a violation of both the Conditions of Certification and Chapter 403, F.S. Reference: F.A.C. Rule 62-555.350.

11. PEF must plan, design, obtain approval for, and construct all necessary modifications to their water supply system in a timely manner in order to provide sufficient capacity to meet the potable water demands of their system. Reference: F.A.C. Rule 62-555.350.

12. PEF must operate the water supply system in such a manner as to comply

with the provisions of Chapter 403, F.S., and all the rules of the Department. Reference: F.A.C. Rules 62-555.320 and 62-555.350.

XVII. INDUSTRIAL WASTEWATER

A. 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.

B. 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.

C. 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.

D. 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.

E. 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.

F. 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.

G. 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:

1. General

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

2. Site-Specific Standards

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

b. Groundwater monitoring for the brine pond will be performed in accordance with Condition XVII.G.2.e. and Section XVIII 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.

c. 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.

d. 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 of Section XII.A. of this Certification, for review and approval by the Department.

e. 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.

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

g. 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.

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.

H. Inspection of Dams

1. 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.)

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

3. 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.

I. Management of Waste Oil

PEF shall manage, use and dispose of all waste oil collected from the oil/water separator in accordance with all applicable state and federal rules.

J. Non-Hazardous Low Volume 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 wastes, 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.

K. Characterization of Cooling Pond Water

This subject is covered in the ground water monitoring conditions.

L. Chemical and Biocide Wastes

Chemical cleaning wastes resulting from the acid cleaning wash and successive rinses may either be collected and characterized individually to determine if they are hazardous wastes or commingled prior to characterization to determine if the mixture is a hazardous waste. Based on the analytical results, the wastes will be handled in accordance with applicable state or federal rules and the conditions of this certification, either on site in the brine pond, on site in the cooling pond, or off site, as appropriate. Chemical boiler cleaning wastes will be routed to the neutralization basin or to neutralization tanks for hazardous waste characterization. The mixture will then be neutralized and the residual wastes disposed of appropriately. Any residual non-hazardous wastewaters resulting from onsite treatment may either be disposed of in onsite impoundments or shipped off site for disposal. Any hazardous wastes not neutralized or otherwise treated on site will be transported off site by a licensed hazardous waste disposal contractor for appropriate treatment and disposal at a licensed hazardous waste facility.

If hazardous wastes are treated on site in tanks or containers regulated under 40 CFR 262.34, PEF will comply with applicable waste analysis plan and notification requirements under 40 CFR 268.7(a)(4) and 268.9(d). Boiler cleaning wastes treated in a waste water treatment unit as defined in 40 CFR 260.10 are not subject to these requirements.

XVIII. GROUNDWATER

A. Groundwater Monitoring Plan

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)

* 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 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 NH4)	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.

B. Underground Injection

1. PEF is authorized to undertake an aquifer recharge and recovery project (ARRP) at the Hines Energy Complex to develop water resources for use in the facility. That project shall be undertaken in accordance with separately issued Departmental permits issued pursuant to the Federal permit program for such operations. The ARRP project shall be undertaken in accordance with Department Permit No. 183519-001-UC for a Class V Group 8 Injection Well System and any subsequent federally-required permit for that system.

2. Aquifer recharge and recovery may be allowed.

XIX. SCREENING

PEF shall provide screening of the plant island as viewed from CR 555 to the extent feasible and as required by Polk County through the use of esthetically acceptable structures, vegetated earthen walls and/or existing or planted vegetation.

XX. TOXIC OR HAZARDOUS MATERIALS

A. Spills

The spill of any toxic or hazardous materials shall be reported in the manner specified by Condition III.B. Noncompliance Notification.

B. Handling and Testing of Potentially Hazardous Material

At least 120 days before bringing a hazardous catalyst onsite, PEF shall provide a plan for handling and disposing of hazardous catalysts to the DEP Southwest District Office.

XXI. SOLID WASTE STORAGE AND DISPOSAL

A. 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.

1. 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.

2. 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.

3. 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.

4. 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.

5. 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 Condition III.B.

6. PEF shall sample leachate from each SWDS 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.

7. The groundwater monitoring for the solid waste disposal areas is incorporated into the Facility Groundwater Monitoring Plan as described in Section XVIII of these certification 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.

8. 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.

B. Site Specific Standards - Coal Gasification Slag

1. The solid waste disposal area clay liner system shall provide protection equivalent to a composite or double liner system in accordance with these conditions of certification.

2. The Solid Waste Disposal Area shall have a leachate collection system. Leachate collection system piping shall be established in perimeter areas near the impoundment dams such that a minimum 10-foot clay thickness exists between the collector ditch and the impoundment dam contiguous with the waste clay underlying the collector ditch. If insufficient clay thickness exists, a synthetic 60 mil HDPE liner shall be installed in localized areas of insufficient clay thickness to prevent seepage outside of the liner system.

3. At least two years prior to disposal in SWDA, PEF shall commence consolidation of the clays in such area in the manner described in the SCA and sufficiency responses.

4. At least six months prior to disposal in SWDA, PEF shall conduct test probings in the SWDA to determine the thickness of the consolidated clay. The clay probings shall be conducted as follows:

a. Clay probings will be performed on approximately 50-foot centers where the consolidated clay covers overburden piles and approximately 150-foot centers between overburden piles. Locations of overburden piles will be determined initially from post-mining aerial photography and visual observation and confirmed by probing.

b. Based on the results of the clay probings, a contour map will be developed which shows the thickness of the consolidated clay over the surface of each proposed SWDA.

5. If the clay thickness is less than a minimum of ten (10) feet in any interior area away from the perimeter dams, restoration of the clay liner shall be made. Restoration shall consist of placing additional clay in the deficient area to achieve a ten-foot clay thickness or placing a 60 mil synthetic HDPE liner patch over the deficient area where the clay is less than 10

feet thick. The patch shall be keyed into the clay around the perimeter of the deficient area to prevent seepage beneath the synthetic liner.

6. The liner systems shall have a quality assurance plan equivalent to that for a composite or double liner system approved by the Department's Solid Waste Section of the SWSSWD prior to construction. Soil and /or synthetic liner construction quality assurance shall include a quality control plan specifying performance criteria for the liner, testing procedures and sampling frequencies.

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

8. Closure shall be equivalent to lined landfill closures, and shall include a barrier layer. Installation of a barrier layer shall include pumping down of the leachate head above the clay liner using a system of well points installed in depressed areas of the disposal area. Well points shall be installed to the top of the clay liner and pumped to lower leachate head levels to less than 4 feet. The well point system shall remain as a dedicated installation upon closure of the areas and shall remain accessible for future pumping if leachate heads exceeding 4 feet redevelop after closure, or if leachate quality exceeds ground water standards.

9. In the event PEF proposes to change the method of closing the solid waste disposal areas required by Condition XXI.B.17 above, the Department may require financial assurance in a manner equivalent to the requirements of Rule 62-701.630.

C. Site Specific Standards - Water Treatment Wastes

Water treatment plant sludge shall be separated from the gasifier slag in a separate solid waste disposal area. The sludge disposal area shall be provided with a minimum two-foot sand or equivalent drainage blanket. Prior to use of the SWDA for disposal of coal gas slag, leachate from the sludge disposal area will drain to the remaining area within the SA-8 impoundment. This leachate will be allowed to drain from the perimeter of the sand blanket and to commingle with surface water within the remainder of the impoundment as part of the water crop for the cooling pond. After development of the remainder of the SWDA for disposal of coal slag, leachate from the sludge disposal area will be collected in the perimeter leachate collection system for disposal or transfer to the cooling pond, as appropriate.

D. 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 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.

E. Processing Additional Information

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

Florida Department of Environmental Protection
Solid Waste Section
3804 Coconut Palm Drive
Tampa, Florida 33619

XXII. FEDERAL ANNUAL OPERATING PERMITS AND FEES

A. Department of Environmental Protection Responsibilities

The Department of Environmental Protection shall implement the provisions of Title V of the 1990 Clean Air Act for the Hines Energy Center developing Conditions of Certification requiring submission of annual operating permit information and annual pollutant emission fees in accordance with federal law and federal regulations.

B. Progress Energy Florida Responsibilities

PEF shall submit the appropriate annual operating permit application information as well as the appropriate annual pollutant emission fees as required by federal law to the Department as specified in Condition C. below.

C. Annual Operating Permit Application and Fee (Reserved)

XXIII. CONSTRUCTION OF LINEAR FACILITIES

A. Right of Way Selection Procedures

Prior to finalization of the ROW location, three copies of blue-line reproductions of the aerial photographs taken within the last year prior to submittal shall be submitted to DEP. The photographic reproductions shall delineate and show the corridor at a scale of 1"= 400' with wetland locations generally identified, and shall show the certified corridor, designated ROWs, structure locations and access road locations. In addition, PEF shall note on the aerial photographs new development in the corridors. PEF shall notify all parties of such filing. This information may be submitted in segments. The agencies receiving copies of the aerial

photographs from PEF shall have 30 days from receipt of the photographs to review the photographs and to notify DEP of any apparent conflicts with the requirements of the conditions of certification. However, this paragraph shall not operate to avoid the need for post-certification submittals and compliance reviews otherwise required by the conditions of certification.

After review of the aerial photographs and comments from the other reviewing agencies, if DEP has reason to believe that the proposed construction within PEF's designated ROW cannot be accomplished in compliance with the conditions of certification, PEF shall be so notified in writing within 45 days from receipt of the aerial photographs. Such notice shall specify with particularity the basis for DEP's conclusion, and possible corrective measures shall be suggested. If such notice is provided, PEF may relocate the ROW within the certified corridor to address the specified concern, or PEF may proceed with design of the natural gas pipeline, reclaimed water pipeline, or transmission line on the noticed ROW at its own risk that construction can be accomplished in compliance with the conditions of certification.

B. Pipeline and Transmission Line Construction Activities

Prior to construction, PEF shall submit to DEP for review 8-1/2" x 11" plan view and cross-section drawings showing all dredge and fill, structure placement and wetland clearing necessary to construct the natural gas pipeline, reclaimed water pipeline and transmission lines. The drawings shall include the dimensions and elevations of all the structures and show the areas to be cleared to the ground and restrictively cleared.

C. Natural Gas Pipeline Location

To minimize the impacts of the natural gas pipeline to the South Prong of the Alafia River the pipeline shall cross the river immediately adjacent to the south side of Jameson Road.

D. Off-Site Impacts

It is the responsibility of PEF to ensure that adverse off-site water resource related impacts do not occur during construction. All wetland areas or water bodies that are outside of the specific limits of construction authorized by this certification shall be protected from erosion, siltation, scouring or excess turbidity, and dewatering. PEF shall prevent adverse off-site water resource related impacts during construction through the compaction of fill, the use of hay bales or turbidity screens, or by any other method acceptable to DEP. In determining the acceptability of other methods of control, DEP shall consult with SWFWMD. Off-site discharges during construction and development shall not violate state water quality standards.

E. Erosion/Runoff Control

PEF shall compact or otherwise stabilize any fill material placed around newly installed structures to reduce erosion, turbidity, nutrient loading and sedimentation in the receiving waters.

Grass seed and mulch or sod must be installed and maintained on exposed slopes within 48 hours of completing final grade, and at any other time as necessary, to prevent erosion, sedimentation or turbid discharges into waters of the state.

PEF shall take additional measures when necessary to prevent turbid discharges in violation of state water quality standards and to minimize off-site damage associated with erosion or turbidity. These measures may include but are not limited to the installation of turbidity barriers at all locations where the possibility of transferring suspended solids into the receiving water body exists due to the proposed construction. Turbidity barriers must be maintained in effective condition at all locations until construction is completed and disturbed soil areas are stabilized. PEF shall be responsible for implementing measures to address any sedimentation, turbidity, erosion or shoaling problems that result from the construction, operation or maintenance of the works authorized under this certification. After fill material has been stabilized, PEF will be responsible for the removal of the barriers.

F. Transmission Line Wetlands Clearing

PEF shall use only restrictive clearing practices during construction and maintenance of the Barcola-Fort Meade 230 kV transmission line where it crosses wetlands. Restrictive clearing, as used in this condition, is the cutting and removal of vegetation from the wetland by hand, usually with chain saws, or with low-ground-pressure shear or rotary machines to reduce soil compaction and damage to ground cover. These methods may be used alone or in combination, as may be appropriate for specific sites. Restrictive clearing includes the removal of vegetation from areas extending from the transmission line centerline to 20 feet on each side of the outer conductors and in work areas approximately 100 feet by 150 feet around structure sites. Also, in area where PEF may need to create access to particular structure sites via finger roads rather than a continuous access road, a path approximately 20 to 25 feet wide may be cleared to reach the site from an existing access road. If necessary, the work area around the structure and the access areas may be destumped. Removable construction matting may be used in these areas to support equipment. The stumps shall not be removed in the portion of the ROW outside of the work area and the access areas. The remainder of the ROW in wetland areas, beyond 20 feet on either side of the outer conductors, shall not be cleared to the ground; however, these areas may be restrictively cleared in that vegetation that has an expected mature height greater than 14 feet may be removed. All cut vegetation shall be removed from the restrictively cleared areas by hand if practicable. All invasive exotic species listed in Attachment A shall be removed from the ROW. Herbicides shall not be applied to the cut stumps of native tree species during the initial clearing.

G. Herbicides

Herbicides used in the natural gas pipeline, reclaimed water pipeline or transmission line ROWs or on the certified site shall include only those registered by the U.S. Environmental Protection Agency, and which have state approval. Herbicide application rates and concentrations will be in accordance with label direction and will be carried out by a licensed applicator, meeting all

federal, state, and local regulations. Herbicide shall be selectively applied to targeted vegetation. Broadcast or aerial application of a non-selective herbicide shall not be used in the ROW or on the certified site unless approved in writing by DEP.

H. Mitigation for Wetland Impacts

Construction of the transmission line in the corridor shown in the application using the construction methods described in the application will not have wetland impacts that would require mitigation. However, if the corridor is modified new corridors proposed, or construction techniques other than the ones described in the original application are proposed, a reevaluation of the need for mitigation for any additional wetland impacts will be necessary. PEF shall provide mitigation as necessary to offset the wetland loss and habitat degradation resulting from the construction of the pipelines associated with this project. Prior to construction, PEF shall propose a mitigation plan, if necessary, and shall provide the following information to the Southwest District Office's Environmental Resource Permitting Section to allow DEP to review the proposed mitigation plan including:

1. detailed description of each wetland impact area;
2. acreage of the type and quality of wetland being impacted at each site;
3. narrative, drawing and aerial photographs showing and explaining the proposed mitigation;
4. detailed description of the existing conditions at the mitigation area;
5. acreage of the total proposed mitigation area, broken down by acreage of each mitigation type and wetland type; and,
6. documentation providing-reasonable assurance that the proposed mitigation will be successful.

If the mitigation submittal is deemed by DEP to provide insufficient information for review, additional information requested by DEP shall be submitted. If DEP, upon review of the proposed mitigation, determines that the proposed mitigation is inadequate to offset the wetland loss and habitat degradation from this project, PEF shall propose additional mitigation. If the proposed mitigation plan is deemed acceptable by DEP, DEP shall establish construction conditions, success criteria and a monitoring plan to be carried out for the approved mitigation. These conditions, criteria and monitoring plan shall be incorporated into the certification conditions as a minor modification.

No construction within wetland areas in the pipeline ROWs shall commence until DEP approves a mitigation plan, and mitigation construction conditions, success criteria and a monitoring plan. As approved, such plans and conditions shall be implemented.

XXIV. WETLAND RECLAMATION REQUIREMENTS FOR MINING PARCELS N-9B AND N-13

A. Within 90 days of completion of clay consolidation (estimated to occur in April 1999 for Buffer Areas N-9B and N-13), PEF shall submit to DEP construction drawings showing the proposed design for the reclaimed wetlands on site. The drawings shall include plan views and cross sections showing all structures and elevations referenced to NGVD for the proposed wetlands.

B. At least 90 days prior to planting of vegetation in mining parcels N-9B and N-13, PEF shall submit to DEP final planting plans for all areas to be reclaimed as wetlands. The plans shall include plan views and cross sections showing the species to be planted at the various elevations. The plans shall specify the size of the plants to be planted and the source of the plants.

C. Together with the initial planting plans, PEF shall submit a detailed management plan for the reclaimed wetlands to DEP for review. The approved plan shall be made part of this certification. Upon approval, the plan shall be fully implemented. The management plan shall include, but not be limited to, frequent assessment and regular removal, if present, of nuisance and invasive exotic species listed in Attachment A and supplemental plantings of wetland species (including ground cover, shrubs and trees) to simulate a natural floristic composition in the shrub and groundcover strata in the forested wetlands. Specific details for all aspects of the plans shall be included, such as specific time intervals for nuisance species assessments and planting densities. The management and maintenance actions shall be fully described in the required annual monitoring reports.

D. In order to ensure that the wetland reclamation is correctly implemented, a qualified biological consultant shall oversee the earthmoving, mucking, grading, planting, and monitoring required for the wetland reclamation plan. Prior to the commencement of any wetland reclamation activities, PEF shall submit to DEP for review and approval the name of the biological consultant and supporting documentation that the biological consultant is qualified to oversee the work. The biological consultant must have documented experience in successful wetland reclamation. Any proposed change in biological consultant prior to the wetland areas being determined to be successful shall be submitted to DEP for review and approval.

E. The areas to be reclaimed as forested wetlands shall be planted with a mixture of woody species noted in Attachment B. This includes the initial list of candidate species. Some may be deleted and others added, depending upon soil conditions resulting from the clay consolidation process. The woody species and the herbaceous species shall be planted at elevations within the reclaimed wetlands that will provide hydroperiods appropriate for the species. Additional or alternate species or densities may be used if approved in writing by the Department during post-certification review. The areas to be reclaimed as herbaceous wetlands shall be planted with a mixture of the herbaceous species listed in Attachment B. These

herbaceous species shall be planted at elevations within the reclaimed wetlands that will provide hydroperiods appropriate for the species. Additional or alternate species or densities may be used if approved in writing by the Department during post-certification review.

F. Within ninety days of completion of dewatering, placement of any soil subsidy and grading, the wetland reclamation areas shall be surveyed and a topographic map shall be prepared and submitted to DEP. The topographic map shall meet the following criteria:

1. It shall clearly depict the wetland topography in such a way as to unambiguously show how the site will retain, detain, shed, or otherwise influence the wet season flow and detention of water at the site.
2. It shall show one foot contour intervals based on a 50 foot, or finer, resolution grid;
3. It shall be certified by a registered land surveyor;
4. It shall show any hydrologic connections between the reclaimed and adjacent, existing wetlands; and,
5. It shall show the variations of topographic relief within the graded areas, which may require showing topographic intervals or spot elevations finer than one foot, in some portions of the site.

G. To provide for a more hospitable root zone environment and to foster better water quality in the short term, DEP encourages PEF to place organic soils, mulch or muck to a minimum depth of four inches on as much of the reclaimed wetlands on the site as possible. An alternative that would be acceptable to DEP would be to cap the wetland area with sand mixed with organic material, rather than overburden. The sand and organic mix, for purposes of the condition, is defined as a fine sand with six percent or greater organic content, if tested by the Walkley-Black method or dry weight loss ignition method.

Any fresh (not stockpiled) muck or mulch to be used for the wetlands shall be from a donor site with no or only minor presence by nuisance or exotic species. Any stockpiled muck or mulch must have all nuisance or exotic plants removed before application to the reclaimed areas. PEF shall submit maps showing the location of specific donor site relative to the project site and a brief description of the proposed site, including the vegetation and soil type. The donor locations must be approved in writing by DEP.

H. The plants used to plant the mitigation areas shall be nursery stock. The plants shall originate from within a 50 mile radius of the site or within the same SCS hardiness zone as the mitigation site, whichever is greater. The stock of vegetation to be planted will be consistent with normal reclamation practices.

I. Freshwater herbaceous wetland reclamation shall be considered successful when the following conditions are met:

1. Percent cover by non-nuisance, non-exotic wetland species shall be 80 percent or more. Percent covers for the aggregate of those wetland species, non-wetland species, bare ground and water shall be reported relative to the total area. A list of the wetland species included in the aggregate shall be included. Wetland species shall be those listed in Florida Administrative Code Rule 62-301.400;

2. Nuisance species and exotic species listed in Attachment A are limited to 10 percent or less of the total cover with no one species being more than 5 percent of the total cover. If these species exceed 10 percent of the total cover their density must be declining over several years, which would be considered a positive indication that they are under control;

3. The reclaimed wetlands are constructed in accordance with the conditions of certification.

J. Forested wetland reclamation shall be considered successful when the following conditions are met:

1. An average of at least 400 wetland trees per acre shall be growing above the herbaceous stratum;

2. The wetland species tree cover shall exceed 33 percent of the total area and in no area of an acre in size shall the tree cover be less than 20 percent total cover. Cover measurement shall be restricted to (1) those trees exceeding the herbaceous stratum in height and (2) those indigenous species that contribute to the overstory of the mature forest of the South Prong of the Alafia River and the Peace River and its tributaries and that are wetland vegetation listed in Florida Administrative Code Rule 62-301.400;

3. At least 80 percent of obligate ground cover (herbaceous) and obligate shrub (non-canopy woody species) vegetation shall be among those species listed in Florida Administrative Code Rule 62-301.400, and shall be reproducing naturally, either normal, healthy, vegetative spread (in ways that would be normal for each wetland species) or through seedling establishment, growth and survival. Nuisance species and exotic species listed in Attachment A shall be limited to 10 percent or less of the total cover, with no one species being more than 5 percent of the total cover. If these species exceed 10 percent of the total cover their density must be declining over several years, which would be considered a positive indication that they are under control;

4. The reclaimed wetlands are constructed in accordance with the conditions of certification.

K. PEF shall furnish to DEP annual statistical reports of vegetational sampling of the

reclaimed wetlands done by any mutually agreed-upon method. Acceptable methods may be found in Daubenmire (1968), Green (1979), Grieg-Smith (1983), Mueller-Dombois and Ellenberg (1974), Oosting (1956), Poole (1974), and Southwood (1978). It is the responsibility of PEF to ensure that the monitoring report provides a qualitative and. quantitative depiction of the site that is representative of the conditions at the entire site. This report shall include on the cover page, just below the title, the certification of the following statement by the individual who supervised preparation of the report: "This report represents a true, accurate, and representative description of the site conditions present at the time of monitoring."

1. A monitoring plan describing sampling methods report format, and a map of sampling locations and photographic stations shall be submitted to the Department for review and approval at least 90 days prior to the initial planting.
2. Annual statistical reports shall describe as appropriate for each reclamation area: (1) the density and percent cover of listed trees, (2) percent cover of listed and non-listed herbaceous species, bare ground and water. For forested wetlands, tree canopy cover shall be submitted for not less than the third, fifth, and any subsequent years after planting until a determination of a successful reclamation has been made. Data for listed nuisance or invasive exotic species shall be tabulated separately. A listed species is one listed in Florida Administrative Code Rule 62-301.400. Reports shall also include an assessment of the jurisdictional status of each reclamation area. Data shall be taken during the summer growing season. Reports shall be submitted annually within 60 days of data acquisition until a determination of a successful wetland reclamation has been made. The first annual statistical report data gathering shall occur not later than one year after planting.
3. Following implementation of the reclamation plan, monitoring shall be performed, following the methods established in the monitoring section, until a determination of a successful reclamation is obtained. At the end of the first three years of monitoring, PEF may request in writing that the monitoring program be reviewed by the DEP to determine whether or not the frequency or parameters of the monitoring program should be changed.
4. If it is determined by DEP staff, based on visual inspection and review of the monitoring reports, that the reclamation is not trending toward success, PEF shall present methods and proposals to be reviewed and approved by the DEP within 30 days of DEP's notification to ensure success of the effort. The plan of corrective actions shall be implemented within 90 days of written approval by DEP.

XXV. MINE RECLAMATION CONDITIONS

A. Conceptual Plan Limitations

Conceptual plan modifications (EST-SC-CPM and IMC-NP-PEF) and variance applications, (EST-SC-PEF-V and IMC-NP-PEF-V) are deemed incorporated into PEF/PCS Certification

Application. Final agency action on these applications by the Governor and Cabinet, sitting as the Siting Board, is being taken under the provisions of the Florida Electric Power Plant Siting Act (FEPPSA), pursuant to sections. 403.501-403.517, Florida Statutes (F.S.). Approval of Conceptual Plan Modification Applications, EST-SC-CPH and IMC-NP-CPF, and Variance Applications, EST-SC-PEF-V and IMC-NP-PEF-V, as part of the certification of the PEF/PCS, does not constitute a statement, admission, or waiver by the state of Florida concerning ownership of any interest in the subject lands within the PEF/PCS or the conceptual plan area. Approval of the conceptual plan modifications does not relieve IMC-Company and Estech, Incorporated of the obligation to comply with the standards and criteria set forth in Chapter 16C-16, Florida Administrative Code (F.A.C.). Upon the purchase of the Polk County Site by PEF, obligation to comply with Chapter 16C-16, F.A.C., and the approved variances, shall be assumed by PEF and IMC-Company with respect to the IMC mining parcels which make up the Polk County site, by PEF and Estech, Incorporated with respect to the Estech mining parcels which make up the Polk County Site, and PEF and USAC with respect to the USAC mine parcel within the Polk County site.

B. Variance Applications

Approval of the variance applications EST-SC-PEF-V and IMC-NP-PEF-V, affecting conceptual plans EST-SC-CPH and IMC-NP-CPF, is hereby granted for a life-of-facility variance from the water body and wetland standards as required by Paragraphs 16C-16.0051(5)(a)-(c), F.A.C., and the drainage restoration, revegetation and reclamation time schedules standards as required by Paragraphs 16C-16.0051(2), (7), (9), and (11), F.A.C.

C. Changes in Ownership

All changes in land ownership or operators of a mine shall be reported to the Bureau of Mine Reclamation no later than thirty (30) days after the effective date of such changes pursuant to Subsection 16C-16.006(6), F.A.C. Pursuant to approval of PEF's Site Certification Application, each applicable operator (IMC, USAC and Estech, Incorporated) shall notify the Department within thirty days of the sale or legal transfer of the land within the PEF/PCS to PEF or any other entity(ies) claiming a fee interest in the land subject to the mandatory reclamation obligation as defined in Section 211.32, F.S. This notification shall be in the form of a legal contract of sale or transfer agreement between each applicable operator and the entity(ies) claiming a fee interest in the affected lands. The contract/agreement shall appropriately identify the rights, duties, and responsibilities that shall be assumed and delegated by the transferee and each applicable operator, and shall be signed by the transferee and the applicable operators.

D. Complete Reclamation Work Responsibility

1. 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 of Environmental Protection.

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)

2. 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.

3. After approval of the PEF-Polk County Site Certification Application, 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), Solid Waste Disposal (III through VI), Water Crop (VII)
SA-9	EST-SC(6)	Water Storage (I), Brine Pond (III-VII)
SA-11	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 Coal
	VI	3,000 MW
	VII	P-2 as Solid Waste Disposal Area

E. Water Cropping Data

PEF shall provide water cropping data to BOMR to assist in the determination of possible enhancements to hydrology models.

F. Reclamation Compensation and Habitat Development

To compensate for the potential habitat displaced in the mining parcels released from mandatory reclamation, pursuant to Condition XXV.D.3., the following conditions shall apply:

1. Off-Site Wildlife Corridor

a. 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 Polk County Site 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.

b. 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.

2. Mining Parcel SA-10

a. 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 Polk County Site.

b. Upon the completion of construction of the initial phase of the Polk County Site, Mining Parcel SA-10 shall be reclaimed as a mixture of upland and wetland habitats, as shown on Attachment B to this Certification. Parcel SA-10 will be contoured to drain to a system sending runoff water ultimately to McCullough Creek.

3. 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.

4. Exotic and Nuisance Species

Exotic species listed in Attachment A shall not be considered an acceptable form of vegetative cover within N-9B, N-13, and SA-10. Nuisance species listed in Attachment A 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. FPC and DEP shall work together to determine appropriate measures to be implemented, such that these species listed in Attachment A will be controlled and/or eradicated.

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

a. 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 Polk County Site cooling pond and shall otherwise be reclaimed as currently approved.

b. 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 Polk County Site.

c. 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.

d. 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.

6. IMC Parcel N-11C

After construction of the final phases of the Polk County Site (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.

7. Wildlife Habitat Management Plan

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

8. Six Mile Creek Drainage

a. PEF shall evaluate the feasibility of establishing drainage flow from the Polk County Site to Six Mile Creek if:

(1) adjacent offsite parcels are developed to provide a surface hydrological connection to the Six Mile Creek system from the Polk County Site;

(2) water use data indicate an excess amount of water is available for the operation of the Polk County Site; and,

(3) no additional permit would be required in connection with such an offsite flow.

b. 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 Polk County Site to the Six Mile Creek system.

9. 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 C, will allow

drainage from the Estech Parcel SA-10 and Estech Plant Site to flow to the McCullough Creek drainage basin.

10. 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 B.

XXVI. SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

A. Water Use Regulation Conditions

1. If any of the statements in the application and in the supporting data are found to be untrue and/or inaccurate, or if Progress Energy Florida (PEF) fails to comply with all of the provisions of Chapter 373, Florida Statutes (F.S.), Chapter 40D, Florida Administrative Code (F.A.C.), or the conditions set forth herein, the Southwest Florida Water Management District (SWFWMD) shall initiate action for suspension or revocation of Certification.

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

3. PEF shall not deviate from any of the water use related terms or conditions of the Site Certificate without written approval by SWFWMD.

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

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

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

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

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

PEF shall mitigate, to the satisfaction of SWFWMD, any adverse impact to existing legal uses caused by withdrawals. When adverse impacts occur or are imminent, SWFWMD shall require PEF to mitigate the impacts. Adverse impacts include, but are not limited to:

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

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

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

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

11. PEF must notify SWFWMD within 30 days of the sale or transfer of permitted water withdrawal facilities or the land on which the facilities are located.

12. 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 Data Section, Resource Regulation
Southwest Florida Water Management District
2379 Broad Street
Brooksville, Florida 34604-6899

Unless otherwise indicated, 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.

13. 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 XXVI.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 Condition XXVI.A.31, 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. 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 reuse of treated wastewater 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, Florida Statutes, 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.

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 Condition XXVI.A.25: 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 Condition XXVI.A.14.a., 14.b.i., and 14.b.ii.1), but not subject to those of Condition XXVI.A.14.b.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 the Conditions of Sections XXVI.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.

14. PEF shall continue to investigate the feasibility of using reclaimed water

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 a reclaimed water feasibility report to SWFWMD in connection with each subsequent application submitted pursuant to Condition XXVI.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 water feasibility. All reuse feasibility reports PEF submits shall contain an analysis of reclaimed water sources for the area, including the relative location of these sources to PEF's property, the quantity of reclaimed water available, the projected date(s) of availability, costs associated with obtaining the reclaimed water, an explanation of PEF's efforts to obtain such reclaimed water, names of individuals PEF has contacted at each reclaimed water provider, a description of any impediments to obtaining that reclaimed water and PEF's efforts to overcome those impediments, and an implementation schedule for reuse, if feasible. Infeasibility shall be supported with a detailed explanation.

15. PEF shall meter withdrawals from surface waters and/or the ground water resources, and meter readings from each withdrawal shall be recorded on a monthly basis within the last week of the month. The meter reading(s) shall be reported to the Permit Data Section, Records and Data Department (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. 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 continue to maintain and operate existing, non-resettable, totalizing flow meter(s) or other flow measuring device(s) as approved by the Bartow Regulation Department Director on SWFWMD ID No. 6, PEF ID No. P-6.

c. 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 Bartow Regulation Department Director.

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 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.

(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 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 from the withdrawal, the PEF shall request instruction 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.

(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.

16. Water quality samples shall be collected and analyzed, for parameter(s), and frequency(ies) specified below. Water quality samples from production wells shall be collected whether or not the well is being used, unless infeasible. If sampling is infeasible, PEF shall indicate the reason for not sampling on the water quality data form. Water quality samples shall be analyzed by a laboratory certified by the Florida Department of Health utilizing the standards and methods applicable to the parameters analyzed and to the water use pursuant to Chapter 64-E-1, Florida Administrative Code, "Certification of Environmental Laboratories". At a minimum, water quality samples shall be collected after pumping the well at its normal rate for a pumping time specified in the table below, or to a constant temperature, pH, and conductivity. In addition, PEF's sampling procedure shall follow the handling and chain of custody procedures designated by the certified laboratory which will undertake the analysis. Any variance in sampling and/or analytical methods shall have prior approval of the Bartow Regulation Department Director. Reports of the analyses shall be submitted to the Permits Data

Section (using SWFWMD forms) on or before the tenth day of the second month following data collection, and shall include the signature of an authorized representative and certification number of the certified laboratory which undertook the analysis. The parameters and frequency of sampling and analysis may be modified by the Bartow Regulation Department Director, as necessary to ensure the protection of the resource.

SWFWMD ID No.	PEF ID No.	Minimum Pumping Time (minutes)	Parameter	Sampling Frequency
1	P-1	30	Chlorides, Sulfates, Total Dissolved Solids (TDS)	Feb., May, Aug. & Nov.

Water quality samples shall be collected based on the following timetable:

Quarterly Same week of months specified

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

17. 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, Florida Administrative Code, "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 (AQHA-AWWA-WPCF) or Methods of Chemical Analyses for Water and Wastes by the U.S.

Environmental Protection Agency (EPA).

18. PEF shall maintain a continuous recording rain gauge and an evaporation pan at Latitude 27° 47' 30" and Longitude 81° 52' 02", SWFWMD ID No. 141. Total daily rainfall and daily evaporation shall be recorded at this station and submitted to the Permit Data Section, Records and Data Department, 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.

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

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.

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 Bartow Regulation Department Director, or the Manager of the Well Construction Permitting Section in Brooksville.

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

21. 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.

22. 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.

23. 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.

24. 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 ARRП) 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 ARRП shall be operated to offset future groundwater withdrawals as provided in condition XXVI.A.14.b.ii(2). The Hines ARRП shall be developed pursuant to the following criteria:

a. Captured rainwater, reclaimed domestic wastewater effluent, treated industrial waste discharges from ALCOA, 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 ARRП;

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 ARRП shall be as follows:

(1) Withdrawals from the Upper Floridan aquifer as offsets generated by the Hines ARRП shall be limited to 85 percent of the total amount of water recharged through the Hines ARRП, as of the date of withdrawal, shall not exceed the rate authorized in Condition of Certification XXVI.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 APT stipulated in Condition No. XXVI.A.22 makes it necessary to submit new groundwater models and the new models show adverse impacts at the rate authorized in Condition of Certification XXVI.A.14.b, the authorized rate shall be reduced accordingly.

e. PEF shall annually submit an ARRП 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 ARRП operation; and

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

improvement.

25. 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.

26. 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 Permit Data Section, Records and Data Department (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 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.

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 Bartow Regulation Department Director.

(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 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 Permit Data Section. 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.

27. 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 Permit Data Section, Records and Data Department (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 meters on 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 meters on previously un-metered 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 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.

28. 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
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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.

29. 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.

30. PEF shall submit by April 1 of each year a Cooling Pond Performance Report for the preceding calendar year. The report shall include graphs and narratives describing and analyzing the performance of the cooling pond in terms of the pond water level in relation to precipitation, evaporation, ambient temperature, water quality, itemized estimates of inflows, itemized estimates of outflows (including seepage losses), and electric power production. Based on these reports, limits on groundwater pumpage into the Cooling Pond in relation, but not limited, to precipitation and Cooling Pond water elevation levels may be adjusted or introduced by SWFWMD.

31. An interim water supply shortage as used in Condition No. XXVI.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 Condition No. XXVI.A.14.b.i, PEF is authorized until November 30, 2005, 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 Bartow Regulation Department Director, 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, Office of Siting Coordination.

c. PEF shall include in its notification documentation that all previously authorized sources of water, as identified in condition XXVI.A.14.b.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 Bartow Regulation Department Director, 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 Condition No. XXVI.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 Condition XXVI.A.28.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 Bartow Regulation Department Director 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 the Condition of Certification XIV.D.4 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) 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 a 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. PEF's authorization to receive groundwater from Tiger Bay for the Hines Energy Complex pursuant to this Condition shall end on November 30, 2005.

32. Within 90 days of construction of the withdrawal facility, PEF shall install a backflow prevention system on SWFWMD ID Nos. 1, 2, 3, 4, and 5, PEF ID Nos. P-1, P-2, P-3, P-4, and P-5.

33. Within 90 days of construction of the withdrawal facility, an automated flow control system shall be installed 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.

34. 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.

35. PEF shall develop and implement a measurement and monitoring plan for the existing on-site rainwater capture and reuse system (known as the watercrop system) approved by Condition XXVI.A.14.c. The watercrop system measurement and monitoring plan shall be 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 FPC 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.

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.

36. The Annual Average Daily (AAD) and Peak Month Daily (PMD) quantities for each of SWFWMD ID Nos. 1, 2, and 3, PEF's ID Nos. P-1, P-2, and P-3, shall be limited to an AAD quantity of 5,000,000 gallons per day (gpd) and a PMD quantity of 8,800,000 gpd. PEF may make adjustments in pumpage distribution as necessary up to the quantities indicated specifically for each withdrawal provided that the combined total quantities will not exceed 5,000,000 gpd on an AAD basis and 8,800,000 gpd on a PMD basis, as long as adverse environmental impacts do not result and other Conditions of this Site Certification are complied

with. In all cases, the total average annual daily withdrawal and the total peak monthly daily withdrawal are limited to the quantities set forth above.

37. 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.

38. 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.

39. 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 Management

The PEF Polk County site, excluding the buffer area, the associated linear facilities, and the offsite area (Estech plant site) proposed for water quantity mitigation purposes will operate as a zero discharge facility. All surface water or stormwater falling within the site boundaries, excluding the buffer areas and associated offsite areas will be contained within the Polk County site and not discharged offsite. However, the conditions of certification apply to the surface water systems both on site and for those areas constructed in association with the facility that are

located offsite. Final project information, construction plans, and other information illustrating the surface water management system and stormwater treatment facilities for the project shall be concurrently submitted to the DEP and the SWFWMD for review prior to construction of any such systems or facilities.

1. The meaning of terms used herein shall be governed by the definitions contained in Chapters 403, 373, and 253, Florida Statutes (F.S.), and any regulation adopted pursuant thereto and the statutes and regulations of any agency. In the event of any dispute over the meaning of a term used in these general or agency-specific conditions which is not defined in such statutes or regulation, such dispute shall be resolved by reference to the most relevant definitions contained in any other state or federal statute or regulation or, in the alternative, by the use of the commonly accepted meaning as determined by law. As used herein:

a. "FDEP" shall mean the Florida Department of Environmental Protection.

b. "SWFWMD" shall mean the Southwest Florida Water Management District.

c. "Application" shall mean the Application for Certification of the Polk County Site and associated facilities.

d. "Feasible" or "practicable", as used in these conditions, shall mean reasonably achievable considering a balance of land use impacts, environmental impacts, and engineering and economic constraints.

e. "Linear facility" shall mean any transmission lines, such as natural gas pipelines, liquid fuel pipelines, railroad lines, reclaimed water pipelines or power transmission lines associated with the Polk County Site (Hines Energy Center).

f. "Project" shall mean the PEF Polk County Site (Hines Energy Center) and all facilities, including: power plant and related facilities; the cooling reservoir, dam, and related facilities; any off-site mitigation/compensation areas, including the off-site mandatory and non-mandatory reclamation areas to be reclaimed and/or re-routed in conjunction with the Polk County Site development; and all of the linear facilities.

g. "ROW" shall mean the linear facility right-of-way to be selected by the PEF within the certified corridor in accordance with the Conditions of Certification.

2. PEF shall provide post-certification submittals to the SWFWMD to ensure that the construction, operation and maintenance of the surface water management system will be in compliance with the Conditions of Certification and the rules of Chapter 40D-4, F.A.C., in effect at the time of post-certification submittals. PEF shall consult with the SWFWMD surface water permitting staff prior to finalization of construction designs, plans, specifications and

locations of project facilities to coordinate and foster mutual understanding of construction designs, techniques and regulatory objectives which are to be reflected on any post-certification review information submittals. Three (3) sets of the post-certification submittals for the surface water management system shall be sent to the Southwest Florida Water Management District, Tampa Permitting Department, 7601 U.S. Highway 301 North, Tampa, Florida 33637. If SWFWMD staff does not issue a written request within 30 days of receipt of the information, the information will be deemed to be complete and sufficient. Within 90 days of the determination by SWFWMD staff that the additional information is complete and sufficient, the SWFWMD shall determine and notify PEF in writing whether the proposed activities conform to SWFWMD criteria, as required by Chapter 40D-4, F.A.C., and the Conditions of Certification. Construction activities which impact works of the District (Chapter 40D-6, F.A.C.), or have surface water management impacts shall not begin until the SWFWMD has determined that the activities are in compliance with the applicable SWFWMD rule criteria and Conditions of Certification, either in writing or by failure to notify PEF in writing.

The following information shall be provided to the SWFWMD by PEF for further post-certification regulatory review:

a. At least 120 days prior to commencement of construction of the linear facilities, copies of blue-line reproductions of aerial photographs of at least 1:400 scale shall be submitted to the SWFWMD delineating the ROW routes selected, boundaries, preliminary pole and pad locations and access roads. PEF shall notify all parties of such filing. The SWFWMD and any other party who requests to do so shall have 30 days from receipt of notice to review the photographs and to call any apparent conflicts with the requirements of the Conditions of Certification to the PEF's attention. However, this paragraph shall not operate to avoid the need for post-certification submittals and compliance reviews otherwise required by the Conditions of Certification.

If any substantially affected party has reason to believe that the construction of the linear facilities and access roads within PEF's designated ROW cannot be accomplished in compliance with the Conditions of Certification, PEF shall be so notified in writing. Failure of such a notice to be served on PEF within 30 days from the notice of filing of the aerial photographs with SWFWMD constitutes acknowledgment that construction of the linear facilities and access roads can be accomplished within the designated ROW submitted for review. PEF shall, where practicable, utilize adjacent existing public roads for access to the linear facility ROW for construction, operation and/or maintenance purposes. Finger roads connecting the existing roads must be constructed in a manner which minimizes alterations to natural drainage flows and adverse water resource impacts.

The acquisition of a particular ROW or the expenditure of funds toward acquisition of a particular ROW prior to post-certification review pursuant to these conditions will be at PEF's risk and no party will be estopped by such acquisition to seek disapproval of the construction of the linear facility or access roads within the ROW in accordance with these Conditions of Certification.

b. At least 120 days prior to the commencement of construction of any portion or phase of the project which may obstruct, divert, control, or impound waters in the state, or 120 days prior to any dewatering activity which may impact SWFWMD jurisdictional wetland, such construction must be reviewed by the SWFWMD for a determination of compliance with Chapter 40D-4, F.A.C., and the Conditions of Certification, as appropriate. "Construction" activities for which such review is required shall include those defined in Rule 40D-4.021(13), F.A.C.; and includes, but is not limited to, installation of all surface water and stormwater management facilities, the placement of structure pads, dredging and filling, the installation of access/ maintenance roads and culverts and fill materials, wetlands mitigation/compensation and related activities in circumstances where a permit from the SWFWMD would ordinarily be required. PEF shall provide appropriate final site information and construction drawings, engineering design calculations, operating and maintenance procedures (all designed and sealed by an engineer practicing in the state of Florida, having the appropriate experience in surface water management design and construction, and in compliance with Chapter 471, F.S.), mitigation/compensation measures and other explicit supporting information for various project phases that are applicable to surface water or stormwater management systems. The information provided shall be sufficient in scope, content and detail to demonstrate compliance with the surface water regulation requirements of Chapter 40D-4, F.A.C., and the Conditions of Certification.

For all construction activities related to linear facilities, the following information shall be provided at a minimum:

- (1) A centerline profile of existing topographic features along the proposed linear facilities corridor(s) sufficient to show contours and drainage patterns;
- (2) Construction plan and designs of the proposed access/ maintenance and finger road(s) with elevations, dimensions and wetland limits shown;
- (3) Typical cross-sections of the proposed access/maintenance and finger road(s)
- (4) Cross-sections of each wetland, stream or creek at the points to be crossed by the-access/maintenance and finger road(s) or other construction;
- (5) Specifications showing the location of each linear facility structure, finger and maintenance/access road (s), and culverts to be constructed, including all areas to be filled or excavated;
- (6) Specifications, including supporting assumptions and - calculations, showing the type and size of water control structures (ditch, culvert, equalizer, etc.) to be used, with proposed flowline elevations marked, drainage areas identified and design capacity verified;

(7) A cross-section of all proposed fill/excavation areas, with the exception of fill/excavation directly associated with transmission line support poles, showing the proposed depth.

For all construction activities within or adjacent to wetlands within SWFWMD jurisdiction excluding wetlands (other than those wetlands contained within Tiger Bay, Tiger Bay East, linear facilities rights-of-ways, and site buffer areas once reclaimed and released) contained within previously mined areas or clay settling areas located on the previously mined phosphate land, which shall not be subject to SWFWMD jurisdiction, the following information shall be provided as a minimum:

(8) Provide a certified survey or other form of accurate and reproducible means of depicting the field verified wetland limits and clearly indicate the limits on the construction drawings.

(9) Provide a numbering system for all such on-site wetlands in Tiger Bay and Tiger Bay East (excluding those less than 0.5 acre) and for each wetland clearly indicate the index number on the construction drawings. In tabular form, please indicate for each wetland the index number, on-site acreage, impact acreage, and indicate whether the wetland has been claimed by the SWFWMD, the ACOE, and/or the DEP.

(10) Conduct a habitat assessment of each of the proposed wetland impact areas. Describe the type and function and include the dominant floral and faunal species for each distinct vegetative zone and stratum.

(11) Submit a sufficiently comprehensive wetland mitigation/compensation plan to provide reasonable assurance of the successful replacement of the proposed impact wetland's values and functions. Natural wetlands to be impacted by linear facilities or other-activities may be mitigated or compensated for on the main Polk County Site with the concurrence of the SWFWMD. Include all design details of the wetland mitigation/compensation areas on the construction drawings. Details should include plan and cross-sectional views showing limits of each distinct zone in reference to proposed control elevations, proposed plantings (species, relative compensation, sizes, and densities) within each zone, mulching details, proposed water elevations (Seasonal High Water Level and Normal Pool), bottom elevations, side slopes, and schedules for wetlands compensation, grading, mulching, planting of the mitigation areas, etc.

(12) Provide a monitoring and maintenance plan for the wetland mitigation/compensation areas.

Sampling design and methodology must clearly demonstrate that the sampling methods and intensity are sufficient to accurately characterize each vegetative zone and stratum in a reproducible manner.

3. PEF shall avoid impacting wetlands by construction of the linear facilities when ever practicable. When necessary and feasible, the location of and span between power poles shall be varied to eliminate or reduce wetland impacts.

4. Subsequent modifications to the drawings and supporting calculations submitted to the SWFWMD which may significantly alter the quantity and/or quality of waters discharged off site shall also be submitted to the SWFWMD for determinations as to whether the modifications are in compliance with Chapters 40D-4, F.A.C., and the Conditions of Certification as appropriate, prior to the commencement of construction.

5. Authorized representatives of the SWFWMD shall be allowed reasonable escorted access to the project site and any authorized off-site mitigation/compensation or otherwise associated areas such as the Estech Plant Site to inspect and observe any activities associated with the project construction and/or operation and/or maintenance of the surface water management system(s) and stormwater facilities in order to determine compliance with the Conditions of Certification.

6. The operational phase(s) of the surface waters management system authorized under this certification shall not become effective until PEF confirms in writing, upon completion of each phase, that these facilities have been constructed consistent with the Conditions of Certification. Such confirmation shall include a certification by a professional engineer licensed in the state of Florida, having the appropriate experience in surface water management design and construction and in compliance with Chapter 471, F.S., unless exempt there under, that the facilities have been constructed in accordance with the approved project design. Within 30 days after completion of construction of each phase of the surface water management system, PEF shall submit the confirmation, including "as-built" construction drawings with the engineer's certification and a description of any deviations, and notify the SWFWMD that the facilities are ready for inspection for consistency with the Conditions of Certification and information submitted hereunder.

7. The SWFWMD may initiate action to require additional post-certification monitoring requirements as a result of technical review of construction information, where necessary to demonstrate compliance with SWFWMD rules and the Conditions of Certification.

8. The terms, conditions, requirements, limitations, and restrictions set forth herein are Conditions of Certification for the surface water management system and as such are binding upon PEF and enforceable pursuant to the authority of Chapters 373 and 403, F.S. PEF is hereby placed on notice that the SWFWMD will review this certification periodically and may initiate enforcement action for any violation of the Conditions of Certification for the surface water management system by PEF, its agents, employees, servants or representatives.

9. This certification for the surface water management system is valid only for the specified processes and operations applied for and indicated in the approved drawings and

exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or Conditions of Certification may constitute grounds for revocation and enforcement action.

10. The issuance of this certification for the surface water management system does not convey any vested rights or any exclusive privileges. Nor does it authorize any injury to public or private property or any invasion of personal rights, nor infringement of federal, state or local laws or regulations.

11. This certification of the surface water management system conveys no title to land or water, does not constitute state recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express state opinion as to title.

12. This certification for the surface water management system does not relieve PEF from liability for harm or injury to human health and welfare, animal, plant or aquatic life or property and penalties thereto caused by the construction or operation of the certified system, nor does it allow PEF to cause pollution in contravention of Florida Statutes and SWFWMD rules, unless specifically authorized by any order from the SWFWMD.

13. PEF shall at all times properly operate and maintain the systems of treatment and control (and related appurtenances) that are installed or used by PEF to achieve compliance with these Conditions of Certification for the surface water management system, as required by the SWFWMD rules (Chapter 40D-4, F.A.C.). This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the Conditions of Certification and when required by the SWFWMD rules.

14. PEF, by accepting this certification for the surface water management system, specifically agrees to allow SWFWMD personnel, upon presentation of credentials or other documents as may be required by law, access to the premises, at reasonable times, where the certified activity is located or conducted, for the purposes of inspection and testing to determine compliance with this certification for the surface water management system and SWFWMD regulation, such as:

- a. having access to and copying any records that must be kept under the conditions of certification for the surface water management system;
- b. inspecting the facility, equipment, practices, or operations regulated or required under this certification for the surface water management system;
- c. Sampling or monitoring any substances or parameters at any location reasonably necessary to assure compliance with this certification for the surface water management system or SWFWMD rules; and,

d. Gathering of data and information.

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

15. If, for any reason, PEF does not comply with or will be unable to comply with any condition or limitation specified in this certification for the surface water management system, PEF shall immediately notify and provide the SWFWMD with the following information:

- a. A description of and cause of noncompliance; and,
- b. the period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

PEF shall be responsible for any and all damages which may result and may be subject of enforcement action for penalties or revocation of this certification.

16. In accepting this certification for the surface water management system, PEF understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this certified source, which are submitted to the SWFWMD, may be used by the SWFWMD as evidence in any enforcement case arising under the Florida Statutes or SWFWMD rules, except where such use is proscribed-by Florida Statutes.

17. The SWFWMD may initiate any necessary action to require PEF to comply with any applicable changes in the SWFWMD rules and Florida Statutes after a reasonable time for compliance, provided, however, PEF does not waive any other rights granted by Florida Statutes or SWFWMD rules.

18. PEF shall comply with the following monitoring and record keeping requirements:

- a. Upon request, PEF shall furnish all records and plans required under the SWFWMD rules. The retention period for all records will be extended automatically, unless otherwise stipulated by the SWFWMD, during the course of any unresolved enforcement action.
- b. PEF shall retain, at the facility or other location designated by this certification, records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentations), copies of all reports required by this certification, and records of all data used to complete the application for this certification. The time period of retention shall be at least three years from the date of the sample, measurement, report or application unless otherwise specified by the SWFWMD rule.

- c. Records of monitoring information shall include:

- measurements;
- (1) the date, exact place, and time of sampling or
- measurements;
- (2) the person responsible for performing the sampling or
- (3) the date(s) analyses were performed;
- (4) the person responsible for performing the analyses; and,
- (5) the results of such analyses.

19. When requested by the SWFWMD, PEF shall within a reasonable time furnish any information required by law which is needed to determine compliance with the certification for the surface water management system. If PEF becomes aware that relevant facts were not submitted or were incorrect in the certification application or in any report to the SWFWMD, such facts or information shall be submitted or corrected promptly.

20. Drawings, plans, calculations, specifications or other information submitted by PEF, not attached hereto, but retained on file at the SWFWMD office, are made a part of this certification.

21. A copy of this certification and a set of construction drawings depicting the certified system are required to be kept at the work site of the certified activity during the entire period of construction or operation.

22. The discharges from the surface water management system shall meet state water quality standards as set forth in Chapter 62-302 and Rule 62-302.700, F.A.C., for class waters equivalent to the receiving waters.

23. Any surface water discharged from the site during construction of the project shall meet state water quality standards at the property boundary or point of discharge to wetlands or state waters. If the discharge does not meet these standards, the discharge will be immediately stopped and the SWFWMD shall be notified of corrective action taken to correct the violation. Turbidity shall not exceed 29 N.T.U. above background level. Turbidity shall be monitored at least daily during discharge, or more often as determined by the project engineer or SWFWMD if needed, to ensure compliance.

24. PEF and construction representatives shall assure that erosion and sediment control measures as necessary and as required by the SWFWMD's Rule 40D-4.091, F.A.C., shall be effectively implemented continuously from the beginning of project construction until completion to prevent erosion and transport and discharge of sediment to wetlands or any property other than the project area. Project retention/detention ponds and discharge control

structures which are to be constructed as part of the project shall be initially built and maintained continuously during project construction to avoid adverse impact to receiving waters or off-site lands.

25. Except as authorized by this certification for the surface water management system, any further land development, wetlands disturbance or other construction within the total land area of this site will require additional certifications in accordance with the SWFWMD's rules (Chapter 40D-4, F.A.C.).

26. All rights-of-way and easement locations necessary to construct, operate and maintain all facilities, including uplands conservation/buffer areas and wetlands, which constitute the certified surface water management system shall be reserved for water management purposes.

27. Construction of the discharge control and water quality treatment facilities which are part of the certified surface water management system for the power block area shall be completed and operational prior to beneficial occupancy and use of the project development being served.

28. Establishment and survival of littoral areas provided for stormwater quality treatment in wet detention systems shall be assured by proper and continuing maintenance procedures designed to promote viable wetlands plant growth of natural diversity and character. As-built drawings depicting the established wet detention treatment areas shall be submitted to the SWFWMD for inspection and approval upon completion of construction. Following as-built approval, perpetual maintenance shall be provided for the certified system.

29. Any existing well in the path of construction shall be properly plugged and abandoned by a licensed water well contractor in accordance with Chapter 40D-3, F.A.C., and Rule 62-532.500(4), F.A.C.

30. Any existing septic tanks on this site shall be abandoned at the beginning of the project construction in accordance with Rule 10D-6.53, F.A.C.

31. Any existing fuel storage tanks and fuel pumps on this site shall be removed at the beginning of project construction in accordance with Rule 62-61.05(3)(c), F.A.C.

32. All retention/detention pond (not including the cooling pond or other industrial wastewater ponds) side slopes shall be sodded and staked as necessary, to prevent erosion.

33. By issuance of this certification the SWFWMD, its employees and representatives assume no responsibility and/or liability in regard to either the design, construction or performance of the certified facilities.

34. Any system alteration, including for augmentation into or withdrawal of water from the certified surface water management system, other than as specifically authorized by this certification, will require additional SWFWMD certification consideration. The water level of detention ponds (not including the cooling pond, other industrial wastewater ponds or water crop areas) shall not be augmented by pumping or diversion of water into the ponds to artificially control their level above the design normal or beginning storage level.

35. In addition to those reports specifically required to be sent to the Tampa Permitting Department, all information and reports required to be submitted by this certification shall be submitted to:

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

36. Construction of all surface water management facilities, excluding wetland compensation, grading, mulching, planting of the mitigation areas, etc., must be completed prior to operation of the surface water management system.

37. PEF shall notify the SWFWMD within 30 days of the sale or transfer of ownership of land on which a surface water management system will be or is located.

38. PEF shall perform the construction authorized in a manner so as to minimize any adverse impact of the system on fish, wildlife, natural environmental values, and water quality. PEF shall institute necessary measures during the construction period including full compaction of any fill material placed around newly installed structures, to reduce erosion, turbidity, nutrient loading and sediments in the receiving waters.

39. PEF shall obtain all necessary federal permits prior to the start of any construction or alteration of works authorized by this certification.

40. The operation phase of this certification for the water management system shall not become effective until the owner or his authorized agent certifies that all facilities of the surface water management system have been constructed in accordance with the design approved by the SWFWMD. Within 30 days after completion of construction of the surface water management system, PEF shall submit the as-builts and notify the SWFWMD that the facilities are complete. The SWFWMD may inspect the system and required remedial measures.

41. Off-site discharge of surface water during construction and development shall be made only through the facilities authorized by this certificate. Water discharged from the project shall be through structures having a mechanism suitable for regulating upstream stages. Stages may be subject to operating schedules satisfactory to the SWFWMD.

42. No construction authorized herein shall commence until a responsible entity acceptable to the SWFWMD has been established and has agreed to operate and maintain the system. The entity must be provided with sufficient ownership so that it has control over all water management facilities authorized herein. Upon receipt of written evidence of the satisfaction of this condition, the SWFWMD will issue an authorization to commence construction. PEF shall be deemed an acceptable entity.

43. PEF shall hold and save the SWFWMD harmless from any and all damages, claims, or liabilities which may arise by reason of the construction, operation, maintenance or use of any facility authorized by this certificate.

44. This certification is issued based on PEF's submitted information which reasonably demonstrates that adverse off-site water resource related impacts will not be caused by the completed surface water management system. It is also the responsibility of the PEF to ensure that adverse off-site water resource related impacts do not occur during construction.

45. All surface water management systems shall practice water conservation to maintain environmental quality and resource protection; to increase the efficiency of transport, application and use; to decrease waste; to minimize unnatural runoff from the property and to minimize dewatering of off-site property. At such time in the future as the SWFWMD Governing Board establishes minimum water levels in aquifers or minimum rates of flow in streams, or otherwise adopts specific conservation criteria, the SWFWMD may initiate any necessary action to require PEF to undergo an alteration of the system to comply with such criteria upon notice by the SWFWMD and after a reasonable period for compliance.

46. In order to ensure that the person who will construct the proposed work is identified as required by 373.413(2)(f), F.S., once the contract is awarded, the name, address, and telephone number of the contractor shall be submitted to the SWFWMD prior to construction.

47. PEF shall immediately provide written notification to the SWFWMD upon beginning any construction authorized by this certificate.

48. PEF shall retain the Design Engineer, or other Professional Engineer registered in the state of Florida, to conduct on-site observations of construction and assist with the as-built certification requirements of this project. The PEF shall inform the SWFWMD in writing and prior to beginning construction of the name, address and phone number of the professional engineer so employed by the PEF for that purpose.

49. Any impacts to wetlands resulting from dewatering activities shall require mitigation/compensation and shall be reviewed by SWFWMD in accordance with the provisions of Condition XXVI.B.2.b.

50. Prior to dewatering activities conducted by PEF, or by the property owners on behalf of PEF for construction of the proposed Polk County site facilities, PEF shall submit a

detailed report documenting the results of a baseline survey of off-site vegetation and associated stream flow data for McCullough Creek and Camp Branch that will be conducted at least six months prior to any construction or dewatering activities. Such survey will be completed prior to the initiation of dewatering activities conducted by PEF, or by the property owners on behalf of PEF to initiate construction activities on the site. This survey shall consist of vegetative transects in each floodplain of Camp Branch and McCullough Creek. PEF shall submit sampling methods and locations of the baseline survey to the SWFWMD for approval prior to implementation. This baseline will serve as the basis for determining any changes in vegetative communities which die due to the activities of the project. Percent cover methodology as described in the Site Certification Application on page 2.3.6-46 shall be utilized.

51. Monitoring for the dewatering activities which result in offsite discharge will be conducted in accordance with the approved dewatering plan as previously submitted by PEF in the Site Certification Application and incorporated into the Conditions of Certification. Analyses shall be performed according to procedures outline in Chapter 62-160, F.A.C. If water quality data are required, PEF shall provide data as required on volumes of water discharged from the surface water management system, including total volume discharged during the days of sampling and total monthly discharges from the property or into surface waters of the state.

52. PEF shall submit quarterly groundwater and surface water level and water quality sampling results to the SWFWMD within 30 days following the end of each quarter from March, 1993, through one full quarter following the conclusion of dewatering, unless the SWFWMD determines at an earlier date that no further monitoring is necessary.

53. Prior to the commencement of construction, PEF shall provide to the SWFWMD documentation to ensure that the surface water management plan can be implemented as proposed at the Estech Plant Site. The mechanism of ownership, control, or other formal agreement with the off-site property owner, must be clearly defined, and the limit of such control or agreements must be fully documented.

54. As with all of the on-site areas, final grading plans for the off-site area associated with this project must be submitted prior to construction for review and approval by SWFWMD staff pursuant to Condition XXVI.B.2. These plans must document conformance with the approved conceptual plan and with the Conditions of Certification.

55. While the conceptual plan for the ultimate site capacity has been reviewed for the Site Certification Application, the scope of construction approved in this report is limited to the construction of those facilities necessary to support the first phase of construction for the 470 MW facility. If in the review of future phases it is determined that some or all of the proposed future phases will not be approved, PEF shall submit to the SWFWMD, within 180 days after such a determination becomes final, a revised surface water management plan and all necessary calculations documenting how the remaining surface water features that would have been associated with the future phases will be reclaimed in accordance with Chapter 40D-4, F.A.C., and Chapters 16C-16 and/or 16C-17, F.A.C., if applicable.

56. PEF shall provide the SWFWMD with an evaluation of the potential for utilizing some of the increased mass flows anticipated in the cooling pond to offset groundwater withdrawal requirements. However, the amount of water diverted to the cooling pond shall not result in a mass flow discharge to either McCullough Creek or Camp Branch that is below 100 percent of the pre-mining condition mass flows for both the mean annual and the 25 year - 24 hour storm event. This information shall be submitted to the SWFWMD for review and approval prior to commencement of construction.

XXVII. FLORIDA DEPARTMENT OF COMMUNITY AFFAIRS

A. Structures for the associated Barcola-Fort Meade 230 kV transmission line shall be designed to withstand hurricane force winds of 120 miles an hour. The lines shall be designed to de-energize if they come loose from the structures so that any lines that do fall to the ground will not be "live" and pose a hazard to the public.

B. PEF shall make all practicable efforts to market sulfur and slag by-products of coal gasification.

C. The office/administration buildings at the Polk County Site shall be included in the Department of Community Affairs' Florida Radon Research Program (FRRP) and Construction Standards Development activities, specifically the FRRP Radon Proposed Standards Demonstration Study in Large Buildings. Additionally, PEF shall conduct a pre-construction, site-specific soil gas radon test in accordance with the FRRP protocol to identify the radon potential of the office/administration building construction site(s). If the test results indicate that the office/administration buildings construction site(s) have a high radon potential, PEF shall (1) integrate improved slabs and sub-slab depressurization systems construction design criteria developed through the FRRP in the office/administration building; (2) conduct post-construction tests in accordance with the FRRP protocols to evaluate the proposed design criteria, and (3) make test results available to the FRRP program.

D. To the extent practicable, PEF shall locate the proposed linear facilities within existing rights-of-way.

E. PEF shall investigate all complaints and provide appropriate mitigation for all impacts to radio and television reception caused by the proposed Barcola-Fort Meade 230 kV transmission line.

F. PEF shall implement the following three conditions during construction of the natural gas pipeline lateral near residences along Jameson Road in Hillsborough County and along Agricola Road near Bradley Junction in Polk County:

1. For residences located within 50 feet of the construction easement, PEF shall avoid removal of mature trees and landscaping between the residence and the edge of the

construction easement, wherever practicable, and shall immediately restore all lawn areas and landscaping within the construction easement.

2. For residences located between 25 and 50 feet from the edge of the construction easement, PEF shall temporarily fence the edge of the construction easement adjacent to the residence for a distance of 25 feet on either side of the residence to ensure that construction equipment and materials, including the spoil pile, remain within the construction easement.

3. For residences located between 0 and 25 feet from the edge of the construction easement, PEF shall temporarily fence the edge of the construction easement and, if practicable, reduce the construction easement as necessary to maintain a minimum distance of 25 feet between the residence and the edge of the construction easement for a distance of 25 feet on either side of the residence. In no case shall the edge of the temporary construction easement be located within 10 feet of a residence unless the landowner agrees in writing. If placement of the pipeline will be within 25 feet of a residence, PEF shall ensure that the trench is not excavated until the pipe is ready for installation and the trench is backfilled immediately after pipe installation.

G. Permittee shall update its current Hines Energy Complex hurricane preparation and recovery plan to include Power Block 1, 2, 3, and 4. The updated plan shall be submitted to the Department of Community Affairs and the Polk County Office of Emergency Management no later than completion of building construction code compliance review of Hines Power Block 3 & 4 by Polk County. The Permittee shall formally update the plan every 5 years following commercial operation of Power Block 4 or whenever an additional electrical generating unit is brought into commercial service at the Hines Plant site and shall submit these updated versions of the plan to the Department of Community Affairs and the Polk County Office of Emergency Management. These updating and submittal requirements should be noted in the plan. If the Department deems the plan or any of its periodic updates not to be in compliance with the requirements of this condition, it may petition for enforcement of this condition pursuant to the Florida Electrical Power Plant Siting Act.

XXVIII. FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION

A. The Florida Fish and Wildlife Conservation Commission (FFWCC) shall be consulted in the development and implementation of reclamation plans for areas SA-10, N-9B and N-13 in the buffer area. PEF shall submit final planting plans for the buffer area to the FFWCC.

B. PEF shall allow authorized representatives of the FFWCC access to the site during operational or business hours upon the presentation of credentials, for the purpose of wildlife monitoring.

C. As part of the annual statistical report of vegetational sampling of the reclaimed wetlands in the buffer areas SA-10, N-9B and N-13, PEF shall report on qualitative monitoring of wildlife usage. A copy of the report shall be provided to the FFWCC.

D. Prior to the construction of the proposed facility, or the installation or refurbishment of any associated linear facility, wildlife surveys shall be conducted for the presence of listed species (endangered, threatened, or species of special concern). The results of these surveys shall be presented to the FFWCC and the U.S. Fish and Wildlife Service.

E. If it is determined that any listed species will be affected by the construction of the Polk County Site or the associated linear facilities, PEF shall consult with the FFWCC and the U.S. Fish and Wildlife Service to determine the appropriate steps to be taken to avoid, minimize, mitigate, or otherwise appropriately address; impacts within each agency's respective jurisdiction.

XXIX. FLORIDA DEPARTMENT OF TRANSPORTATION

A. Prior to commencing the hauling of fuel oil to the site, a specific haul route shall be submitted to the FDOT, Polk County and any other affected jurisdiction for review for compliance with generally applicable requirements. PEF may revise the haul route with notice to the affected jurisdiction(s). In the event FDOT or any county road agency approves a work program that includes a structural repair or structural improvement along the haul route, PEF shall provide its proportionate share of the cost of the repair/improvement. Proportionate share shall be defined as the average annual fuel oil truck traffic to and from the PEF Polk County Site divided by the average annual total traffic on the haul route for the most recent five-year period. PEF's proportionate share shall be calculated and paid within six months of the beginning of the fiscal year in which the repair or improvement is commenced. It shall be the responsibility of FDOT or the appropriate county road agency to notify PEF of the inclusion of the repair/improvement of the work program.

B. When the number of construction and operating employees reporting to the site at the same shift exceeds 350, PEF shall begin a traffic monitoring program at the intersection of SR 37 and CR 640 for determining the need to install a traffic signal or to make geometric improvements. Intersection monitoring shall consist of conducting turning movement counts and a signal warrant analysis. The monitoring shall be conducted once per year in January, February, or March, until the number of employees has peaked or a signal and appropriate intersection improvements are installed, whichever comes first. PEF shall provide its proportionate share of the cost of the improvements required. Proportionate share shall be defined as actual project traffic divided by actual total traffic volume at the intersection at the time the improvement is determined to be needed.

C. Prior to the time when the number of construction and operating employees reporting to the site at the same shift exceeds 150, PEF shall add a signal phase for westbound left-turns, which operates as a protected/permissive at the intersection of CR 555 and SR60.

Modifications to the transportation system must conform to the requirements of the FDOT. Geometric improvements required to accommodate this signal phase shall be part of the signal modification. This does not include the re-aligning of CR 555 at the southbound approach.

D. Prior to the time when the number of construction and operating employees reporting to the site at the same shift exceeds 700, PEF shall add a second westbound left-turn lane by restriping the existing pavement at the intersection of US 98 and SR 60A. The restriping process shall include the milling of existing pavement, repaving, and providing new pavement markings within the construction area.

E. All utility work/construction with the state right-of-ways shall conform to the minimum requirements of the Utility Accommodation Manual dated 6/93, or as may be amended. For all work normally requiring a Utility Permit, FDOT shall issue the permit within 90 days, or as may be required by the Utility Accommodation Manual, of the submission of a satisfactorily completed Utility Permit (Form #592-03, or as may be amended).

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

G. Any new public rail/highway at-grade crossings which may be deemed necessary for this site by PEF must adhere to the non-procedural standards of Rule 14-46.003, F.A.C. In the event PEF determines it is necessary to create a new public rail/highway at-grade crossing, PEF shall include the crossing as part of either a modification of certification or supplemental application, which shall include notices for public hearings or stipulations of all parties as required by Chapter 403, Part II, F.S., and Chapter 62-17, F.A.C.

H. Access management to the State Highway System: No new access to the State Highway System is proposed in the supplemental site certification application for Power Block 2, 3, and 4. If new access is later proposed, access permitting as defined in Rule chapters 14-96, State Highway System Connection Permits, Administrative Process, and 14-97, State Highway System Access Management Classification System and Standards, Florida Administrative Code, will be required.

I. Overweight or Overdimensional Loads: Operation of overweight or overdimensional loads by the applicant on State transportation facilities during construction and operation of the utility facility will be subject to permitting as defined in Chapter 316, Florida Statutes, and Chapter 14-26, Safety Regulations and Permitting Fees for Overweight and Overdimensional Vehicles, Florida Administrative Code.

J. Use of State of Florida Right of Way or Transportation Facilities: Any use of State of Florida right of way and certain activities on State transportation facilities will be subject to the requirements of the Florida Department of Transportation's Utility Accommodation

Manual (Document 710-020-001) and rule chapter 14-46, Railroads/Utilities Installation or Adjustment, Florida Administrative Code.

K. Best Management Practices

1. Traffic control will be maintained during plant construction and maintenance in compliance with the standards contained in the Manual of Uniform Traffic Control Devices, Chapter 14-94, Statewide Minimum Level of Service Standards, Florida Administrative Code; Florida Department of Transportation's Roadway and Traffic Construction Design Standards; and Florida Department of Transportation's Standard Specifications for Roads and Bridges, whichever is more stringent.

2. If the applicant uses contractors for the delivery of any overweight or overdimensional loads to the site during the construction of the additional unit, the applicant should ensure that its contractors adhere to the necessary standards and receive the necessary permits required under Sections 316, Florida Statutes, and Rule Chapter 14-26, Safety Regulations and Permitting Fees for Overweight and Overdimensional Vehicles, Florida Administrative Code.

XXX. POLK COUNTY

A. Permits

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

Citation: CUP 92-06 Condition No. 1.

B. Fuel

The project shall be restricted to the burning of natural gas, coal gas, coal, or oil unless a Conditional Use Permit (CUP) modification providing an analysis of the impact of any proposed change in fuel types is reviewed and approved by the Polk County Board of County Commissioners in accordance with Polk County procedures for conditional use permits.

Citation: CUP 92-06 Condition No. 2.

C. Fire Protection Plan

Following site certification, and prior to completion of building construction code compliance review, PEF shall submit an acceptable fire protection plan to the Polk County Fire Codes

Inspector outlining specific measures to be taken to meet all local fire codes and regulations. As part of this plan, PEF shall install on the fuel oil tanks either subsurface foam systems or outside foam systems, and shall maintain foam on-site for operation of these systems.

Citation: CUP 92-06 Condition No. 3.

D. Emergency Management and Response Plans

Following site certification, and prior to completion of building construction code compliance review, PEF shall submit an acceptable Emergency Management and Response Plan (EMR Plan) to the Polk County Office of Public Safety. The EMR Plan will detail emergency management and response procedures for any project-related, on-site incidents, including hurricane, fire, and hazardous materials release, so as to ensure minimum response time and maximum effectiveness and efficient response in or DEP to protect the public's health, safety, and welfare. The plan shall be consistent with the requirements of 29CFR 1910.38. In the event of a project-related on-site incident which has the potential to result in off-site impacts, PEF shall promptly ascertain the extent of the impact and take appropriate steps to remedy the situation or mitigate such off-site impacts.

Citation: CUP 92-06 Condition No. 4.

E. Emergency Notice

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

Citation: CUP 92-06 Condition No. 5.

F. Landscape Buffer

Landscaping shall be installed in accordance with the landscape plan included in the Site Certification Application. Installation shall be completed prior to commercial operation of the first unit. PEF shall guarantee 80 percent survival of landscape plant materials for a period of one year following the completion of installation.

Citation: CUP 92-06 Condition No. 6.

G. Tall Structure Compliance

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

Citation: CUP 92-06 Condition No. 7.

H. Transportation

1. Following certification, but prior to the completion of building code compliance review, PEF shall submit to the Polk County Planning Division Director a plan for monitoring the number of employees reporting to the site at the same shift time and reporting this information to the Polk County Planning Division. The data collected through this monitoring program shall be the basis for determining the need for transportation improvements.

Citation: CUP 92-06 Condition No. 8A.

2. Prior to the completion of building construction code compliance review, PEF shall be required to construct a Case III intersection at the main driveway connection to CR 555 in accordance with Polk County subdivision regulations, including left-turn storage and acceleration/deceleration lanes.

Citation: CUP 92-06 Condition No. 8B.

3. Prior to the completion of building construction code compliance review, PEF shall be required to construct a Case II (balanced) intersection at the secondary or northernmost driveway connection to CR 555 in accordance with Polk County's subdivision regulations.

Citation: CUP 92-06 Condition No. 8C.

4. Prior to the time when the number of construction and operating employees reporting to the site at the same shift time exceeds 150, PEF shall add a signal phase for westbound left-turns which operates as protected/permissive at the intersection of CR 555 and SR 60. Modifications to the transportation system must conform to the requirements of the FDOT.

Citation: CUP 92-06 Condition No. 8D.

5. Prior to the time when the number of construction and operating employees reporting to the site at the same shift exceeds 700, PEF shall add a second westbound left-turn lane by restriping the existing pavement at the intersection of US 98 and SR 60A. Modifications to the transportation system must conform to the requirements of the FDOT.

Citation: CUP 92-06 Condition No. 8E.

6. When the number of construction and operating employees reporting to the site at the same shift exceeds 350, PEF shall begin a traffic monitoring program at the intersection of SR 37 and CR 640 for determining the need to install a traffic signal or to make

geometric improvements. Intersection monitoring shall consist of conducting turning movement counts and a signal warrant analysis. The monitoring shall be conducted once per year in January, February, or March, until the number of employees has peaked, a signal is installed, or other necessary intersection improvements are made.

Citation: CUP 92-06 Condition No. 8F.

7. When the number of construction and operating employees reporting to the site at the same shift time exceeds 350, PEF shall begin a traffic monitoring program at the intersection of CR 555 and CR 40 for determining the need to install a traffic signal or to make geometric improvements. Intersection monitoring shall consist of conducting turning movement counts and a signal warrant analysis. The monitoring shall be conducted once per year in January, February, or March, until the number of employees has peaked, a signal is installed, or other necessary intersection improvements are made.

Citation: CUP 92-06 Condition No. 8G.

8. Following site certification and prior to the completion of building construction code compliance review, PEF shall submit an acceptable Transportation Demand Management Plan to the Polk County Planning Director outlining specific measures to be taken to minimize the impacts of both construction and operations traffic on the surrounding transportation network.

Citation: CUP 92-06 Condition No. 8H.

9. The site shall be limited to the two access points on CR 555 shown on Figures 3.2.1-1 and 3.2.1-2 in the Site Certification Application. The entrances shall be built for use during the construction phase of this project. All construction traffic shall park inside the site, well away from the road right-of-way.

Citation: CUP 92-06 Condition No. 8I.

I. Solid Waste Disposal

1. PEF shall be responsible for proper disposal of slag and/or ash by-products produced in the power generation process at locations other than at Polk County landfills.

Citation: CUP 92-06 Condition No. 9A.

2. PEF shall monitor groundwater in relation to solid waste disposal areas and make available to the Polk County Water Resources Director all data produced from the groundwater monitoring system. Upon prior notice, PEF shall allow county staff members access to the site for purposes of examining the condition of the groundwater monitoring equipment,

observing the sampling procedures and collection of samples as deemed necessary for Polk County.

Citation: CUP 92-06 Condition No. 9B.

J. Hazardous Materials Storage

PEF shall annually report their storage and usage of hazardous material to Polk County as required by SARA Title III and upon prior notice shall allow county staff members access to the site for purposes of determining compliance with reporting requirements. As part of the first report, PEF shall specifically address with narrative descriptions, data and maps, as appropriate, the location of the Polk County Site, as a facility at which hazardous materials may be used, handled or stored, with respect to the following:

1. access from the site to major transportation routes for ease and safety of transporting hazardous materials.

Citation: CUP 92-06 Condition No. 10A.

2. access and reasonable response time to the site for properly-trained and equipped personnel to service potential hazardous materials accidents

Citation: CUP 92-06 Condition No. 10B.

3. the nearness and degree of sensitivity of surrounding land uses.
Citation: CUP 92-06 Condition No. 10C.

4. the compatibility of the proposed use with respect to the nature of hazardous materials stored or used on adjacent sites.

Citation: CUP 92-06 Condition No. 10D.

5. the existence of surface water features, including drainage patterns and basin characteristics.

Citation: CUP 92-06 Condition No. 10E.

6. the location of potable water supplies, private wells, public well fields, sinkholes, and other conduits for potential migration of contaminants.

Citation: CUP 92-06 Condition No. 10F.

7. atmospheric conditions, including but not limited to prevailing wind patterns.

Citation: CUP 92-06 Condition No. 10G.

K. Spill Prevention Control and Countermeasure Plan

PEF shall be required to submit a preliminary Spill Prevention Control and Countermeasure Plan (SPCC) to the Polk County Public Safety Department and the Polk County Planning Department as part of the building construction code compliance review. The final SPCC Plan shall be submitted to Polk County for compliance review six months prior to the date the first unit begins commercial operation and shall be implemented when the first unit begins commercial operation. The SPCC Plan shall be updated in the event of a change in design, construction, operation, technology, or maintenance, which materially affects the facility's potential for the discharge of oil into or upon the navigable waters of the U.S. or adjoining shore line. This Plan shall be prepared and updated in accordance with requirements of the Clean Water Act, as in 40 CFR Part 112 and submitted to Polk County for review and comment prior to implementation.

Citation: CUP 92-06 Condition No. 11.

L. Flood Study

1. PEF shall submit a flood study to the Federal Emergency Management Agency (FEMA) in support of a Letter of Map Amendment or Revision, whichever is appropriate, in accordance with National Flood Insurance Program Rules and Regulations, within one year of release of reclamation of the site.

Citation: CUP 92-06 Condition No. 12.

2. PEF shall construct and maintain adequate flood protection berms to assure that the Homeland area will not receive flood waters in the event of a dam failure.
Citation: Polk Ordinance 88-04.

3. PEF shall perform and provide to Polk County a detailed analysis of dam failure flood conditions including alternatives for minimizing obstruction and damage to roadways.

Citation: Polk Ordinance 88-04.

M. Stack Emissions Monitoring

PEF shall make available to the Polk County Environmental Services Director all data produced from the emissions monitoring systems for the exhaust stack(s) when requested and report on a quarterly basis any excess emissions. PEF shall allow designated county staff: members' access to the site for purposes of examining the condition of this equipment and the monitoring program upon prior notice.

Citation: CUP 92-06 Condition No. 13.

N. Compliance with Applicable Air Quality Regulations

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

Citation: CUP 92-06 Condition No. 14.

O. Transmission Lines

PEF shall apply to Polk County for a modification to CUP 92-06 at the time it submits a supplement to or modification of their site certification application to the state regarding a defined, proposed corridor route for any new, proposed transmission lines associated with the PEF Polk County site.

Citation: CUP 92-06 Condition No. 15.

P. Wildlife Habitat Management Plan

A wildlife habitat management plan for the buffer areas shown on Site Certification Application Figure 2.1.3-1 shall be required and must be approved by the Florida Game and Fresh Water Fish Commission and Polk County prior to commercial operation of the first unit at the Polk County site. Revegetation and planting in the buffer areas shall be in accordance with applicable approved non-mandatory reclamation plans. If no non-mandatory reclamation plans are approved for the buffer areas, revegetation and planting shall be in accordance with the plan presented in the Site Certification Application (SCA) process and with federal agency input if required. The wildlife habitat management plan shall include a map of the buffer areas and shall describe the type and objectives of habitat management activities to be performed within the buffer areas. Such management activities may include water level management, habitat diversification, and removal of exotic and unwanted vegetation (e.g., Brazilian pepper).

Citation: CUP 92-06 Condition No. 16.

Q. Water Use and Conservation Reporting

Following the start of commercial operation, PEF shall:

1. supply a quarterly report on ground water use quantities, ground water level measurements, and water quality analysis results.
2. supply an annual report on methods of water conservation, and estimates

of water conservation (if available).

These reports shall be submitted to the Polk County Planning and Water Resource Division Directors. The quarterly report shall be submitted 45 days after each quarter. The annual report(s) summarizing the year's results shall be submitted by March 31, for the preceding calendar year.

Citation: CUP 92-06 Condition No. 17.

R. Ambient Air Quality Testing

To the extent not already provided for through the DEP Title V funded statewide air quality monitoring network or other means, PEF shall provide up to two ambient air quality monitoring stations concurrent with the operation of the first unit to the Polk County site. The purpose of this condition is to provide reasonable assurance that sufficient monitoring apparatus will be put in place to determine actual air quality conditions in the area affected by PEF's Polk County site. Monitoring requirements, such as station location, parameters to be monitored, number of monitoring stations and quality assurance procedures shall be determined by the Florida Department of Environmental Protection in consultation with the Polk County air program manager and PEF.

Citation: CUP 92-06 Condition No. 18.

S. Protection of Wells

PEF shall remediate any potable water well located on lands at the northwest corner of CR 555 and CR 640 owned by Mr. Donald Haag which has been determined by the Polk County Water Resources Director to have been adversely impacted by PEF's operation.

Citation: CUP 92-06 Condition No. 19.

T. Non-Designated Area

The non-designated area on the Generalized Project (Site Plan Site Certification Application Figure 2.1.3-1) shall be designated as undeveloped, with the exception of the existing transmission line and substation.

Citation: CUP 92-06 Condition No. 20.

U. Consumptive Use

PEF shall investigate the possible reuse of available treated municipal and county effluent, and other potential sources of water (such as deeper aquifer water) as cooling pond makeup in order to reduce the use of potable ground water. PEF shall investigate alternative methods to reduce

the amount of potable water needed for use as cooling pond makeup water, such as, but not limited to conservation and treatment/ use of lower quality water. The investigation shall include all municipal and county sewage treatment facilities within Polk County. As a goal, PEF shall seek to develop and implement a program to maximize the use of alternative water sources. The results of the investigation and compliance shall be included in each supplemental application.

In subsequent applications for this site, if technically and economically feasible, PEF shall incorporate reuse of treated effluent or alternative lower quality water sources into its design. It is the intent that to the extent that it is technically and economically feasible, PEF shall in subsequent applications include in its design that reuse/alternative water sources shall constitute an increasing proportion of the PEF total cooling water makeup requirements.

Citation: CUP 92-06 Condition No. 23. Polk Comprehensive Plan Policy 2.306-B1, 2.306-B2, and 3.105D-2

V. Sinkhole Response and Clean-Up Plan

PEF shall develop and submit to Polk County for approval six months prior to commencing operation of the first commercial unit, a plan detailing the emergency measures to be implemented if such an event occurs, and a remedial action plan to clean-up the impacted aquifer(s) and surface water(s) if a sinkhole occurs on the PEF site.

Citation! CUP Finding 20-2

W. Inspection and Permit Compliance Fees

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

Citation: Polk County Building Codes

X. Building Construction Code Compliance Review Agreements

Prior to the commencement of construction, Polk County and PEF shall enter into an agreement on the following items:

1. responsibility for inspections.
2. types of inspections:
 - a. site preparation

- b. installation of facilities
 - c. need for threshold inspection
- 3. fees to be paid by PEF to Polk County for the Building Code Compliance Review.

Citation: Polk County Building Codes and Power Plant Siting Act.

Y. Reporting

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

Citation: Florida Electrical Power Plant Siting Act, Chapter 403, Part II, F.S.

**XXXI. HILLSBOROUGH ENVIRONMENTAL PROTECTION COMMISSION,
HILLSBOROUGH COUNTY AND TAMPA PORT AUTHORITY**

A. Alafia River Crossing

The crossing of the Alafia River by the natural gas pipeline lateral shall be accomplished underneath the riverbed so as not to interfere with flow or use of the river for boating, swimming or other recreational activities. No vegetation will be cleared along the banks of the Alafia River at the pipeline river crossing for a distance of 25 feet back from the stream bank.

B. Buffering and Screening

1. Landscape Buffer - A 10 foot landscape buffer, as required for a Group 1 use adjacent to a single family residential use, or such other buffer as may be appropriate based on the surrounding land use, site layout and the height and bulk of the metering station facilities, shall be provided for the metering station site. If deemed appropriate by the County, the 10-foot landscape buffer shall include screening in accordance-with-Section 2.5.14.2.1 of the Hillsborough County Land Development Code (dated March 4, 1992). In no case shall the buffering and screening requirements exceed those for a Group 2 use adjacent to a single family residential use, as specified in Table 2.5.3, Buffer Matrix, and Section 2.5.14.2.4 of the Hillsborough County Land Development Code. Notwithstanding this condition, provisions of Section 2.5.14.7 and 2.5.14.8 dealing with "Alternative Buffers and Screening" and "Existing Vegetation", respectively, shall also be allowed if existing site conditions are such that the provisions would be applicable. Landscaping within the buffer area shall be provided in accordance with section 3.6.3, Landscaping Standards and Guidelines, of the Hillsborough County Land Development Code.

2. Radio Tower - Any radio or other communications tower located on the metering station site whose purpose is to provide communications for the operation of the natural gas pipeline and metering station shall meet the setback requirements and height limitations of the AR zoning district and shall comply with the standards listed in Sections 2.6.4.95.1 through 2.6.4.95.5.

C. Land Alteration Review

1. General Provision

a. Exemption - Once the right-of-way for the natural gas pipeline lateral and the specific site for the metering station have been selected, PEF shall determine, in consultation with the County and EPC, whether construction of the pipeline or the metering station will adversely impact any environmentally sensitive area, as defined in Division 7.3 of the Hillsborough County Land Development Code (including wetlands pursuant to Chapter 1-11, Rules of the EPC). In the event PEF so determines, and the County and EPC concur, that pipeline or metering station construction will not adversely impact an environmentally sensitive area, that facility shall be exempt from land alteration review as provided in Section 3.5.1.3.3.(7) of the Hillsborough County Land Development Code. Pipeline crossings of environmentally sensitive areas accomplished by drilling or boring underneath the surface, such that the land surface or bottom of inundated portions of the environmentally sensitive area is not disturbed, shall not constitute an adverse impact to the environmentally sensitive area. For purposes of verification that environmentally sensitive areas will not be adversely impacted, PEF shall submit aerial photographs (at scale of 1" = 400' or greater) of the pipeline right-of-way and metering station site showing the locations of proposed uses of drilling or boring construction techniques to the Hillsborough County Administrator and the Executive Director of EPC.

b. Tree Replacement - Even if the pipeline or metering station is determined exempt from land alteration review as provided in Section 3.5.1.3.3.7 of the Hillsborough County Land Development Code, PEF shall be required to comply with Section 3.5.3.3.5, requiring replacement of 50 percent of the total DBH of any tree having a DBH of 24 inches or greater or any clump of trees, as defined in Section 7.3, that is to be removed from the metering station site or the pipeline right-of-way. A tree survey shall be conducted in accordance with Section 3.5.2.2.17.5 of the Hillsborough County Land Development Code, except that it shall only identify those trees requiring replacement under this condition. The survey shall be accomplished in conjunction with the ecological survey provided for in Condition XXXI.3.b and shall be limited to the area where the pipeline right-of-way crosses Sections 5, 8 and 9 of Township 31S, Range 22E. As provided in Section 3.5.3.3.5 of the Hillsborough County Land Development Code, "total DBH removed" shall be the sum of the DBH's of all trees being removed from the metering station site or pipeline right-of-way that require replacement. DBH shall mean Diameter at Breast Height, as defined in Section 7.3 of the Hillsborough County Land Development Code. Replacement of trees in accordance with this condition may occur off-site or outside the pipeline right-of-way and shall be accomplished in accordance with Sections 3.5.3.3.6 through 3.5 3.3.10 dealing with replacing, relocating, planting and transplanting of

trees. As provided in Section 3.5.4 of the Hillsborough County Land Development Code, PEF may contribute money, as approved by the County under generally applicable criteria, to the Environmental Restoration Fund in lieu of or as part of the tree replacement requirements of this condition.

c. Information Submittal for Land Alteration Review -

In the event PEF determines, in consultation with the County and EPC, that pipeline and/or metering station construction will adversely impact an environmentally sensitive area, PEF shall submit information necessary to demonstrate compliance with Hillsborough County's land alteration review standards. This information filing shall be on the form provided by the County for an application for a Land Alteration Permit. Submission requirements specified in Section 3.5.2.2 of the Hillsborough County Land Development Code shall be met, except for:

(1) Item #2 - Evidence that the applicant is the authorized agent of the owner will be provided for the metering station site but not for the pipeline right-of-way. Prior to the initiation of pipeline construction, PEF shall provide the County with evidence of its legal right to construct the pipeline.

(2) Item #5 - The legal description, section, township and range, folio number and street address, if any, will be provided for the metering station; however, only the section, township and range and folio numbers will be provided for the pipeline right-of-way.

(3) Item #12 requiring a project compatibility plan for a development project proposed adjacent to a public or private, non-profit natural preserve is not applicable.

(4) Item #14 - Soil boring obtained for purposes of detailed engineering required for the pipeline and metering station will be provided to the County.

(5) Item #17(1) through (4) and (6) through (8) shall be provided for the metering station only. Item #17 (9) (typical cross section of the area to be excavated) shall be provided for the pipeline trench and jack and bore construction.

d. Land Alteration Review Standards and Guidelines -

Land alteration standards and guidelines as listed in Section 3.5.3 shall be followed, except it is recognized that:

(1) Trees having a DBH of 5 inches or greater within the area between 25 feet and 100 feet of the Alafia River bank may need to be removed for construction of the pipeline lateral and such construction in support of a certified electric power generating facility would constitute a case of overriding public interest for purposes of Section 3.5.3.3.(4).

(2) Planting of replacement trees or preservation of significant or essential upland habitat, if required, may not be possible on-site, i.e., within the boundary of metering station site or the pipeline right-of-way. If required, planting of replacement trees and/or preservation of significant or essential upland habitat may be accomplished off-site in accordance with Section 3.5.3.4.2.6. As provided in Section 3.5.4 of the Hillsborough County Land Development Code, PEF may contribute money as approved by the County under generally applicable criteria, to the Environmental Restoration Fund in lieu of or as part of the tree replacement requirements of this condition.

(3) Criteria, exceptions or exemptions in Section 3.5 for utility installation or installation of utility lines, such as Section 3.5.3.4.1.2.4 concerning setbacks, Section 3.5.3.5.2 concerning retention of natural plant community vegetation, and Section 3.5.3.4.2.2.4(c) concerning protection of xeric and mesic habitats shall be applicable to the natural gas pipeline lateral.

(4) For purposes of determining compliance with Section 3.5.3.4.2.2.3 concerning preservation of significant wildlife habitat, the clearing for and underground construction of the natural gas pipeline lateral shall be considered a design feature that allows for the safe passage of wildlife and shall not be considered to result in fragmentation of a wildlife corridor.

D. Ecological Survey

1. No later than 120 days prior to the initiation of clearing activities within the gas pipeline lateral right-of-way, an ecological survey shall be conducted to identify the presence of threatened or endangered species (plants and animals), as defined in the Site Certification Application in Tables 2.3.6.9 and 2.3.6.10, in the right-of-way based on range and habitat. This survey shall also identify the location of any wading bird colonies. Results of this survey shall be submitted to the Hillsborough County Administrator and the Hillsborough County EPC at the same time the survey results are submitted to the Florida Department of Environmental Protection (DEP) and the Florida Game and Fresh Water Fish Commission (FGFWFC). If it is determined that any of those species will be adversely affected by the construction of the pipeline lateral, the PEF shall consult with DEP, the County and FGFWFC to determine the appropriate steps to be taken to avoid, minimize, mitigate or otherwise appropriately deal with, any adverse impact to resources within those agencies' respective jurisdictions. The results of this survey shall be considered sufficient to meet the submission requirements of Hillsborough County's land alteration standards review.

2. Procedure for Review

The County shall complete review of PEF's land alteration submittal, ecological survey and affected environmentally sensitive area within the same time frame and generally applicable procedure established for such review in the Conditions of Certification for other agencies.

Inspections

Per Section 3.5.2.1.2.2.9 of the Hillsborough County Land Development Code, the County Administrator may conduct periodic inspections of the metering station site and pipeline right-of-way to determine compliance with these conditions.

- E. Site Plan Review
- F.
- G. 1. Information Submittal for Site Plan Review

Prior to construction, PEF shall submit information on the natural gas metering station site as appropriate for administrative review of a Limited Use. Submission of such information shall be for the purpose of determining compliance with applicable Hillsborough County review standards and criteria for approval of a Limited Use, as provided in the Hillsborough County Land Development Code, Division 2.6. Applicable Limited Use Permit submission requirements, as listed in Section 2.7.9.7.3 of the Hillsborough County Land Development Code, including completion of the Hillsborough County Limited Use application form attached as Attachment D, shall be met.

2. Procedure for Review of Site Plan

Hillsborough County shall promptly review for completeness the information submitted by PEF for a site plan review. For the purposes of this condition, completeness shall mean that the information submitted is both complete and sufficient. If the information is found to be incomplete, Hillsborough County shall notify PEF within 30 days of the date the submittal is filed. Failure to so notify PEF constitutes a finding of completeness. PEF shall send Hillsborough County a reminder notice 20 days after the submittal is filed.

Within 90 days of PEF's complete information submittal, Hillsborough County shall determine whether there is reasonable assurance of compliance with the County's site plan review standards and criteria for approval of a Limited Use. If it is determined that reasonable assurance has not been provided, PEF shall be notified with particularity and possible corrective measures suggested. Failure to notify PEF in writing within 90 days of receipt of the complete information submittal shall constitute a compliance verification. PEF shall send Hillsborough County a reminder notice 70 days after the submittal is filed.

If Hillsborough County does not object within the time period specified above, PEF may begin construction pursuant to the terms of the Conditions of Certification and the subsequently submitted construction details.

Neither the information specified in this condition, nor referral of a site plan-related issue for dispute resolution pursuant to Condition 8 shall affect other conditions or operate as a stay on the construction or other activities of PEF which are not in dispute.

H. Hillsborough County Right-of-Way Use

Hillsborough County shall authorize each natural gas pipeline road right-of-way crossing or use within 30 days of the submission of a complete use permit application for such natural gas pipeline. In construction of the natural gas pipeline lateral, PEF shall follow the standards of Hillsborough County for a right-of-way use permit unless PEF and Hillsborough County subsequently agree to the contrary.

I. Environmental Protection Commission Review

1. Pipeline crossing of jurisdictional wetlands or open water habitat accomplished by drilling or boring underneath the surface, such that the land surface of the wetland or the bottom of the open water habitat is not disturbed, shall not constitute destruction or degradation of the wetland or open water habitat under EPC's regulations. EPC shall review any such crossings as identified by PEF, along with their related construction plans, and if EPC agrees and also determines that the proposed construction methods will avoid adverse impact to waters of the County, no further EPC review will be required for those crossings. Temporary clearing with restoration of natural contours and opportunity for natural revegetation shall not constitute destruction or degradation of the wetland or open water habitat, provided the vegetation does re-establish, and shall not be subject to EPC review except to verify that the vegetation has re-established. PEF shall provide a letter of commitment to EPC to ensure re-establishment of the natural vegetation. If pipeline construction is accomplished in a different manner such that wetlands or open water habitat may be degraded or destroyed, such pipeline construction shall be subject to full EPC review in accordance with this condition and the County's land alteration review in accordance with Condition XXXI.3. above.

2. EPC and PEF agree to abide by the approval of the corridor through the State Site Certification process and the right-of-way through the Post-Certification Process, both of which may weigh other public issues than wetlands protection. PEF may, at its own discretion, propose a right-of-way or a narrowing of the corridor prior to completion of the State Site Certification process. In the event, EPC and PEF agree to abide by the approval of the narrowed corridor or right-of-way through the State Site Certification process.

3. To initiate the EPC review process, PEF will submit to EPC the equivalent of the appropriate fee, as established in Chapter 1-6.05(10) of EPC's rules, and a request that a wetland delineation be performed by EPC for all wetlands within the corridor using EPC's aerial photographic delineation method or field delineation method. EPC shall complete the wetland delineation within 30 days of receipt of a complete wetland delineation request and payment of the fee. EPC sign-off on the wetland delineation shall be provided in writing within 30 days of satisfactory completion of the delineation survey.

4. To minimize impact to wetlands, PEF agrees that it shall consult with EPC

as a part of its selection of a right-of-way within the certified corridor, and, to the extent practicable, avoid locating the right-of-way in wetlands.

5. EPC shall review PEF's right-of-way selection and decide whether wetland impacts have been avoided to the extent possible, given environmental, land use and engineering considerations. PEF's right-of-way selection shall be depicted on the same aerial photographs as were used for the wetland delineation. If PEF elects to propose a right-of-way prior to the completion of the State Site Certification process as provided in paragraph 6B above, this review shall be completed in sufficient time to resolve through the certification hearing any wetland avoidance issues remaining between EPC and PEF. If EPC reviews PEF's right-of-way selection as part of a post-certification review process, EPC's review shall be completed within 30 days following submittal of aerial photographs showing the right-of-way location. The results of this post-certification review process shall be an agreed upon right-of-way, and, thereafter, right-of-way location shall not be an issue in the EPC review process.

6. Upon completion of the wetland delineation and review of the right-of-way by EPC, PEF will submit the equivalent of the appropriate fees, as established in Chapter 1-6.05(11) of EPC's rules for wetland mitigation, and submit a Development and Mitigation Approval package in accordance with EPC guidelines, providing a complete explanation and justification of the proposed method of construction and any proposed mitigation to EPC asking that EPC consider all impacts within a designated right-of-way. This submittal and EPC's consideration of it may include other public issues than wetlands protection.

7. EPC will review the submittal and decide whether wetland impacts within the right-of-way have been minimized given the environmental, land use and engineering considerations. EPC shall notify PEF of its decision in writing within 30 days of receipt of a complete submittal. Such notice shall specify the basis for EPC's conclusion, and possible corrective measures shall be suggested, if considered necessary.

8. PEF shall provide construction plans for the right-of-way and suitable kind for-kind, acre-for-acre wetland mitigation or upland mitigation, where appropriate under Chapter 1-11, for all wetland impacts. This mitigation can be proposed either on PEF's own property or by written consent of the property owner, on the property of others in a mitigation bank according to EPC's standard mitigation criteria.

9. Upon review of the mitigation proposal required by Conditions XXXI.6.f and XXXI.6 h above and any modification that may be necessary to bring any required mitigation proposal into compliance with EPC's non procedural standards, EPC will approve (by letter) the mitigation proposal and forward the attached Mitigation Agreement (see Attachment E) to PEF for execution. Review of the mitigation proposal and any modifications shall be accomplished within 30 days of PEF's submittal of all necessary information.

10. Once the Mitigation Agreement is executed and recorded, PEF may proceed with construction.

11. EPC shall make every effort to conform as closely as possible to the procedures and timetables established in the Conditions of Certification for other wetland review agencies.

J. Submerged Lands

The Tampa Port Authority (TPA) or its staff shall issue the appropriate concurrence for a natural gas pipeline crossing of lands and waterways under the jurisdiction of the Authority within 30 days of the submission of a complete application for such natural gas pipeline crossing demonstrating compliance with applicable provisions of the Tampa Port Authority's Rules for Sovereignty Lands Management (January 4, 1984). In the construction of the natural gas pipeline lateral, PEF shall follow the applicable standards of the Tampa Port Authority's Rules for Sovereignty Lands Management (January 4, 1984), unless PEF and Tampa Port Authority subsequently agree to the contrary.

K. Dispute Resolution

It is understood that PEF, the County, EPC and TPA shall strive to resolve disputes by mutual agreement. All parties to this stipulation may take whatever position(s) they deem appropriate with respect to any dispute resolution mechanism to be incorporated in Conditions of Certification imposed by the Governor and Cabinet sitting as the Siting Board.

XXXII. HISTORY NOTES

Certification Issued 01/27/94; signed by Governor Chiles
Modification (A) 05/18/95; signed by Secretary Wetherell
Modification (B) 12/21/95; signed by Secretary Wetherell
Modification (B) 08/18/97; signed by Secretary Wetherell
Modification (C) 12/24/97; signed by Secretary Wetherell
Modification (D) 01/27/99; signed by Acting Secretary Green
Supplemental Certification issued 06/04/01; signed by Governor Bush
Modification (E) 07/08/03; signed by Program Administrator Oven
Supplemental Certification issued 09/11/03; signed by Governor Bush
Modification (F) xx/xx/xx; signed by Program Administrator Oven

Attachments

Figure 1 – Monitoring Wells

Attachment A

EXOTIC AND NUISANCE PLANT LISTS
EXOTIC PLANT LIST
Brazilian Pepper (<i>Schinus terebinthifolius</i>) Water Lettuce (<i>Pistia stratiotes</i>) Cogon Grass (<i>Imperata brasiliensis</i> & <i>cylindrica</i>) Caeser's Weed (<i>Urena lobata</i>) Kudzu (<i>Pueraria montana</i>) Lantana (<i>Lantana camara</i>) Japanese Climbing Fern (<i>Lygodium japonicum</i>) Melaleuca (<i>Melaleuca quinquenervia</i>) Australian Pine (<i>Casuarina equisetifolia</i>)
NUISANCE PLANT LIST
Cattail (<i>Typha</i> spp.) Primrose Willow (<i>Ludwigia peruviana</i>) Climbing Hempvine (<i>Mikania scandens</i>) Water Hyacinth (<i>Eichornia crassipes</i>)

Attachment B

VEGETATION PLANTING PLAN FOR N-9B, N-13 AND SA-10 WITH CANDIDATE SPECIES AND PLANTING DENSITIES

MINE AREA N-9B

1. UPLAND FOREST

ACRES OF HABITAT TO BE ESTABLISHED: 41

Trees - Total average density of 300/acre

- Slash Pine (*Pinus elliottii*)
- Laurel Oak (*Quercus laurifolia*)
- Southern Red Ceder (*Juniperus silicicola*)
- Live Oak (*Quercus virginiana*)
- Sweetgum (*Liquidambar styraciflua*)
- American Holly (*Ilex opaca*)
- Pignut Hickory (*Carya glabra*)
- Redbud (*Cercis canadensis*) - Delayed until overstory shading
- Dogwood (*Cornus florida*) - Delayed until overstory shading
- Black Cherry (*Prunus serotina*) - Natural recruitment
- Cabbage Palm (*Sabal palmetto*)

Shrubs - Total average density of 240/acre

- Saw Palmetto (*Serenoa repens*)
- Wax Myrtle (*Myrica cerifera*)
- Beautyberry (*Callicarpa americana*)
- Yaupon Holly (*Ilex vomitoria*)
- Wild Olive (*Osmanthus americanus*)
- Shining Sumac (*Rhus copallina*)
- Hawthorne (*Crataegus* spp.)
- Blueberry (*Vaccinium* spp.)
- Groundsel Tree (*Baccharis halimifolia*) - Natural recruitment

Grasses, Forbs and Vines - 80 percent of ground cover

- Eastern Gamagrass (*Tripsacum dactyloides*)
- Panicum (*Panicum* spp.)
- Blackberry (*Rubus* spp.) - Natural recruitment
- Virginia Creeper (*Parthenocissus quinquefolia*) - Natural recruitment
- Greenbriar (*Smilax* spp.) - Natural recruitment
- Wild Grape (*Vitis munsoniana*) - Natural recruitment
- Wood Fern (*Thelypteris* spp.) - Natural recruitment

2. SHRUB/BRUSHLAND

ACRES OF HABITAT TO BE ESTABLISHED: 23

Shrubs - Total average density of 240/acre

- Saw Palmetto (*Serenoa repens*)
- Wax Myrtle (*Myrica cerifera*)
- Beautyberry (*Callicarpa americana*)
- Yaupon Holly (*Ilex vomitoria*)
- Wild Olive (*Osmanthus americanus*)
- Shining Sumac (*Rhus copallina*)

Groundsel Tree (*Baccharis halimifolia*) - Natural recruitment

Grasses, Forbs and Vines - 80 percent of ground cover

Eastern Gamagrass (*Tripsacum dactyloides*)

Panicum (*Panicum* spp.)

Blackberry (*Rubus* spp.) - Natural recruitment

Virginia Creeper (*Parthenocissus quinquefolia*) - Natural recruitment

Greenbriar (*Smilax* spp.) - Natural recruitment

Wild Grape (*Vitis munsoniana*) - Natural recruitment

Wood Fern (*Thelypteris* spp.) - Natural recruitment

3. RANGELAND

ACRES OF HABITAT TO BE ESTABLISHED: 6

Grasses, Forbs and Vines - 100 percent of ground cover

Eastern Gamagrass (*Tripsacum dactyloides*)

Panicum (*Panicum* spp.)

Bluestems (*Andropogon* spp.)

Lopsided Indiangrass (*Sorghastrum secundum*)

Blackberry (*Rubus* spp.) - Natural recruitment

Partridge Pea (*Cassia chamaecrista*)

Wild Grape (*Vitis munsoniana*) - Natural recruitment

Hairy Indigo (*Indigofera hirsuta*) - Natural recruitment

Aster (*Aster* spp.) - Natural recruitment

4. PINE FLATWOODS

ACRES OF HABITAT TO BE ESTABLISHED: 27

Trees - Total average density of 200/acre

Slash Pine (*Pinus elliotii*)

Longleaf Pine (*Pinus palustris*)

Persimmon (*Diospyros virginiana*)

Shrubs - Total average density of 200/acre

Saw Palmetto (*Serenoa repens*)

Wax Myrtle (*Myrica cerifera*)

Beautyberry (*Callicarpa americana*)

Yaupon Holly (*Ilex vomitoria*)

Gallberry (*Ilex glabra*)

Fetterbush (*Lyonia lucida*)

Blueberry (*Vaccinium* spp.)

Grasses, Forbs and Vines - 80 percent of ground surface

Eastern Gamagrass (*Tripsacum dactyloides*)

Panicum (*Panicum* spp.)

Bluestems (*Andropogon* spp.)

Lopsided Indiangrass (*Sorghastrum secundum*)

Blackberry (*Rubus* spp.) - Natural recruitment

Greenbriar (*Smilax* spp.) - Natural recruitment

Partridge Pea (*Cassia fasciculata*)

Wild Grape (*Vitis munsoniana*) - Natural recruitment
Aeschynomene (*Aeschynomene* spp.)

5. SHRUB WETLAND

ACRES OF HABITAT TO BE ESTABLISHED: 25

Shrubs - Total average density of 300/acre

Buttonbush (*Cephalanthus occidentalis*)
Dahoon Holly (*Ilex cassine*)
Elderberry (*Sambucus simpsonii*)
Swamp Dogwood (*Cornus foemina*)
Swamp Hibiscus (*Hibiscus grandiflorus*)
Groundsel Tree (*Baccharis halimifolia*) - Natural recruitment
Carolina Willow (*Salix caroliniana*) - Natural recruitment
Wax Myrtle (*Myrica cerifera*) - Natural recruitment

Grasses, Forbs and Vines - 100 percent of ground surface

Panicum (*Panicum* spp.)
Lizard's Tail (*Saururus cernuus*)
Sedge (*Carex* spp. and *Cyperus* spp.)
Royal Fern (*Osmunda regalis*)
Cinnamon Fern (*Osmunda cinnamomea*)
Sawgrass (*Cladium jamaicense*)
Duck Potato (*Sagittaria* spp.)
Golden Ragwort (*Senecio glabellus*) - Natural recruitment
Wood Fern (*Thelypteris* spp.) - Natural recruitment
Wild Grape (*Vitis munsoniana*) - Natural recruitment
Camphorweed (*Pluchea* spp.) - Natural recruitment
Cow Pea (*Vigna luteola*) - Natural recruitment

6. FRESHWATER MARSH (HERBACEOUS WETLAND)

ACRES OF HABITAT TO BE ESTABLISHED: 79

Groundcover - 50 percent of remaining available ground surface

Panicum (*Panicum* spp.)
Sedge (*Carex* spp. and *Cyperus* spp.)
Sawgrass (*Cladium jamaicense*)
St. John's Wort (*Hypericum fasciculatum*)
Spike Rush (*Eleocharis* spp.)
Soft Rush (*Juncus effusus*)
Black Rush (*Juncus repens*)
Bullrush (*Scirpus* spp.)
Swamp Lily (*Crinum americanum*)
Spider Lily (*Hymenocallis* spp.)
Pickerelweed (*Pontederia cordata*)
Arrowroot (*Thalia geniculata*)
Canna Lily (*Canna* spp.)
Duck Potato (*Sagittaria* spp.)
Spatterdock (*Nuphar lutea*)
Water Lily (*Nymphaea* spp.)

7. ISLANDS AND OVERBURDEN MOUNDS

ACRES OF HABITAT TO BE ESTABLISHED: 6

Vegetation in these areas will require minimal to no plantings. They will either be overburden mounds left intact or constructed mounds tapered into the slough.

MINE AREA N-13

1. WETLAND MIXED FOREST

ACRES OF HABITAT TO BE ESTABLISHED: 13

Trees - Total Average Density

Red Maple (*Acer rubrum*)
Sugarberry (*Celtis laevigata*)
Pop Ash (*Fraxinus caroliniana*)
Bald Cypress (*Taxodium distichum*)
Red Mulberry (*Morus rubra*)
Water oak (*Quercus nigra*)

Shrubs - Total average density of 300/acre Buttonbush (*Cephalanthus occidentalis*)

Dahoon Holly (*Ilex cassine*)
Elderberry (*Sambucus simpsonii*)
Swamp Dogwood (*Cornus foemina*)
Swamp Hibiscus (*Hibiscus grandiflorus*)
Wild Olive (*Osmanthus americanus*)
Groundsel Tree (*Baccharis halimifolia*) - Natural recruitment

Grasses, Forbs and Vines - 100 percent of ground cover

Panicum (*Panicum* spp.)
Lizard's Tail (*Saururus cernuus*)
Sedge (*Carex* spp. and *Cyperus* spp.)
Royal Fern (*Osmunda regalis*)
Cinnamon Fern (*Osmunda cinnamomea*)
Wood Fern (*Thelypteris* spp.) - Natural recruitment
Wild Grape (*Vitis munsoniana*) Natural recruitment

2. SHRUB WETLAND

ACRES OF HABITAT TO BE ESTABLISHED: 14

Shrubs - Total average density of 300/acre

Buttonbush (*Cephalanthus occidentalis*)
Dahoon Holly (*Ilex cassine*)
Elderberry (*Sambucus simpsonii*)
Swamp Dogwood (*Cornus foemina*)
Swamp Hibiscus (*Hibiscus grandiflorus*)
Groundsel Tree (*Baccharis halimifolia*) - Natural recruitment
Carolina Willow (*Salix caroliniana*) - Natural recruitment
Wax Myrtle (*Myrica cerifera*) - Natural recruitment

Grasses, Forbs and Vines - 50 percent of remaining available ground surface

Panicum (*Panicum* spp.)
Lizard's Tail (*Saururus cernuus*)
Sedge (*Carex* spp. and *Cyperus* spp.)
Royal Fern (*Osmunda regalis*)
Cinnamon Fern (*Osmunda cinnamomea*)
Sawgrass (*Cladium jamaicense*)
Duck Potato (*Sagittaria* spp.)
Golden Ragwort (*Senecio glabellus*) - Natural recruitment
Wood Fern (*Thelypteris* spp.) - Natural recruitment
Wild Grape (*Vitis munsoniana*) - Natural recruitment
Camphorweed (*Pluchea* spp.) - Natural recruitment
Cow Pea (*Vigna luteola*) - Natural recruitment
Water Lily (*Nymphaea* spp.)

3. PALMETTO PRAIRIE

ACRES OF HABITAT TO BE ESTABLISHED: 268

Shrubs - Total average density of 50/acre

Saw Palmetto (*Serenoa repens*)
 Wax Myrtle (*Myrica cerifera*)
 Gallberry (*Ilex cassine*)
 Fetterbush (*Lyonia lucida*)
 Blueberry (*Vaccinium* spp.)
 Grasses, Forbs and Vines - 100 percent of remaining ground cover
 Eastern Gamagrass (*Tripsacum dactyloides*)
 Panicum (*Panicum* spp.)
 Bluestems (*Andropogon* spp.)
 Lopsided Indiangrass (*Sorghastrum secundum*)
 Blackberry (*Rubus* spp.) - Natural recruitment
 Greenbriar (*Smilax* spp.) - Natural recruitment
 Partridge Pea (*Cassia chamaecrista*)
 Aeschynomene (*Aeschynomene* spp.) - Natural recruitment

MINE AREA SA-10

RANGELAND

ACRES OF HABITAT TO BE ESTABLISHED: 83.6

Grasses, Forbs and Vines - 100 percent of ground cover
 Eastern Gamagrass (*Tripsacum dactyloides*)
 Panicum (*Panicum* spp.)
 Bluestems (*Andropogon* spp.)
 Lopsided Indiangrass (*Sorghastrum secundum*)
 Blackberry (*Rubus* spp.) - Natural recruitment
 Partridge Pea (*Cassia chamaecrista*)
 Wild Grape (*Vitis munsoniana*) - Natural recruitment
 Hairy Indigo (*Indigofera hirsuta*) - Natural recruitment
 Aster (*Aster* spp.) - Natural recruitment

2. FRESHWATER MARSH (herbaceous wetland)

ACRES OF HABITAT TO BE ESTABLISHED: 90

Groundcover - 50 percent of remaining available ground surface
 Panicum (*Panicum* spp.)
 Sedge (*Carex* spp. and *Cyperus* spp.)
 Sawgrass (*Cladium jamaicense*)
 St. John's Wort (*Hypericum fasciculatum*)
 Spike Rush (*Eleocharis* spp.)
 Soft Rush (*Juncus effusus*)
 Black Rush (*Juncus repens*)
 Bullrush (*Scirpus* spp.)
 Swamp Lily (*Crinum americanum*)
 Spider Lily (*Hymenocallis* spp.)
 Pickerelweed (*Pontederia cordata*)
 Arrowroot (*Thalia geniculata*)
 Canna Lily (*Canna* spp.)
 Duck Potato (*Sagittaria* spp.)
 Spatterdock (*Nuphar lutea*)
 Water Lily (*Nymphaea* spp.)

3. SHRUB/BRUSHLAND

ACRES OF HABITAT TO BE ESTABLISHED: 21.6

Shrubs - Total average density of 240/acre

Saw Palmetto (*Serenoa repens*)
 Wax Myrtle (*Myrica cerifera*)

Beautyberry (*Callicarpa americana*)
 Yaupon Holly (*Ilex vomitoria*)
 Wild Olive (*Osmanthus americanus*)
 Shining Sumac (*Rhus copallina*)
 Groundsel Tree (*Baccharis halimifolia*) - Natural recruitment
 Grasses, Forbs and Vines - 80 percent of ground cover
 Eastern Gamagrass (*Tripsacum dactyloides*)
 Panicum (*Panicum* spp.)
 Blackberry (*Rubus* spp.) - Natural recruitment
 Virginia Creeper (*Parthenocissus quinquefolia*) - Natural recruitment
 Greenbriar (*Smilax* spp.) - Natural recruitment
 Wild Grape (*Vitis munsoniana*) - Natural recruitment
 Wood Fern (*Thelypteris* spp.) - Natural recruitment

4. UPLAND FOREST

ACRES OF HABITAT TO BE ESTABLISHED: 65.8

Trees - Total average density of 300/acre

 Slash Pine (*Pinus elliotii*)
 Laurel Oak (*Quercus laurifolia*)
 Southern Red Cedar (*Juniperus silicicola*)
 Live Oak (*Quercus virginiana*)
 Sweetgum (*Liquidambar styraciflua*)
 American Holly (*Ilex opaca*)
 Pignut Hickory (*Carya glabra*)
 Redbud (*Cercis canadensis*) - Delayed until overstory shading
 Dogwood (*Cornus florida*) - Delayed until overstory shading
 Black Cherry (*Prunus serotina*) - Natural recruitment
 Cabbage Palm (*Sabal palmetto*)

Shrubs - Total average density of 240/acre

 Saw Palmetto (*Serenoa repens*)
 Wax Myrtle (*Myrica cerifera*)
 Beautyberry (*Callicarpa americana*)
 Yaupon Holly (*Ilex vomitoria*)
 Wild Olive (*Osmanthus americanus*)
 Shining Sumac (*Rhus copallina*)
 Hawthorne (*Crataegus* spp.)
 Blueberry (*Vaccinium* spp.)
 Groundsel Tree (*Baccharis halimifolia*) - Natural recruitment

Grasses, Forbs and Vines - 80 percent of ground cover

 Eastern Gamagrass (*Tripsacum dactyloides*)
 Panicum (*Panicum* spp.)
 Blackberry (*Rubus* spp.) - Natural recruitment
 Virginia Creeper (*Parthenocissus quinquefolia*) - Natural recruitment
 Greenbriar (*Smilax* spp.) - Natural recruitment
 Wild Grape (*Vitis munsoniana*) - Natural recruitment
 Wood Fern (*Thelypteris* spp.) - Natural recruitment

Attachment C

Attachment D

Attachment E

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Attachment F