



Jeb Bush
Governor

Department of Environmental Protection

Marjory Stoneman Douglas Building
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000

David B. Struhs
Secretary

MAILED
8 JULY 03 5:11

July 8, 2003

- CERTIFIED MAIL - RETURN RECEIPT REQUESTED -

John J. Hunter
Progress Energy Florida
Post Office Box 14042
St. Petersburg, FL 33733-4042

**RE: Hines Energy Complex
Modification to Conditions of Certification
DEP Case Number PA 92-33E
OGC Case Number 03-0638**

ORDER MODIFYING CONDITIONS OF CERTIFICATION

Dear Mr. Hunter:

On April 26, 2001, Progress Energy Florida ("PEF"), formerly known as Florida Power Corporation ("FPC"), submitted a request for modification of site certification for the Hines Energy Complex, PA92-33. The requested modification would allow construction and implementation of the treatment portion of an Aquifer Recharge and Recovery Project ("ARRP"), construction of an exploratory underground injection control well, development of various other alternative water supply sources, and generation of water use offsets by operation of the ARRP. The proposed modification would also allow the receipt and use at the Hines Energy Complex of industrial wastewater generated at the Tiger Bay Generating Station. A new pipeline to convey this water to the Hines Energy Complex site would be constructed. The request also sought permission to transfer to the Hines Energy Complex that portion of groundwater authorized for consumptive use at the Tiger Bay Generating Station but which is as yet unneeded at the Tiger Bay facility. This water would be conveyed to the Hines Energy Complex in the same pipeline built to convey the industrial wastewater.

The water transfer pipeline would be built within the certified Hines Energy Complex transmission line right-of-way. Consequently, the construction of the pipeline required an amendment to the Site Certification Application rather than a modification of the Conditions of Certification. An amendment was approved in April 2002.

The Department has reviewed the modification request and subsequent supplemental information submittals. On May 15, 2003, all parties to the certification proceeding were provided with notice by certified mail of the Department's intent to modify the Conditions of Certification for this facility, along with a copy of the proposed Order Modifying Conditions of Certification. Additionally, on May 30, 2003, notice of the Department's intent to modify the Conditions of Certification for this facility was published in the Florida Administrative Weekly ("FAW") and on the Department's internet home page at <http://www.dep.state.fl.us/> under the link or button titled "Official Notices." Those notices specified that pursuant to Section 403.516, Florida Statutes ("F.S."), and Rule 62-17.211, Florida Administrative Code ("F.A.C."), all parties to the certification proceeding have 45 days from the issuance of notice by mail to such party's last address of record in which to file a written objection to the modification; that any person who is not already a party to the certification proceeding and whose substantial interests will be affected by the requested modification has 30 days from the date of publication of the public notice in the Florida Administrative Weekly to object in writing; that failure to act within the time frame constitutes a waiver of the right to become a party; and that the Department will issue an Order Modifying the Conditions of Certification for this facility if no written objections are received by the Department.

No objections to the modification have been received by the Department. The Conditions of Certification for the Hines Energy Complex are hereby modified as follows:

I.A.1. "Application" shall mean the Site Certification Application (SCA) for the ~~Polk County Site~~ Hines Energy Complex (originally known as the Polk County Site) Project, as supplemented.

{Note: all subsequent occurrences in the Conditions of Certification of the phrase "Polk County Site" shall be replaced with the phrase "Hines Energy Complex" without further specific reference to change in this Final Order.}

I.A.2. through 6. No change.

I.A.7. ~~"FPC" shall mean Florida Power Corporation (FPC)~~ "PEF" shall mean Progress Energy Florida, Inc.

{Note: all subsequent occurrences in the Conditions of Certification of the phrase "FPC" shall be replaced with the phrase "PEF" and all subsequent occurrences of the phrase "Florida Power Corporation" shall be replaced with the phrase "Progress Energy Florida" without further specific reference to change in this Final Order.}

I.A.8. through 11. No change.

II. through XVIII.A. No change.

XVIII.B. Underground Injection

XVIII.B. Underground Injection

1. ~~Deep well injection is not addressed nor authorized in this certification and prior to implementation shall be subject to further department approval.~~ 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.

XIX. through XXV. No change.

XXVI.A. Water Use Regulation ~~Permitting~~ Conditions

XXVI.A.1. through 13. No change.

XXVI.A.14. No change.

XXVI.A.14.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 ~~sewage plant~~ 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.

XXVI.A.14.b. No.change.

XXVI.A.14.b.i. 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 940 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 ~~sewage treatment plant~~ or other reuse sources.

XXVI .A.14.b.ii. The total quantity of water that ~~which~~ 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:

XXVI.A.14.b.ii.1) No change.

XXVI.A.14.b.ii.2)a) No change.

XXVI.A.14.b.ii.2)b) Offset through recharge and subsequent withdrawal of water pursuant to the Aquifer Recharge and Recovery Project described in Condition XXVI.A.25: or

XXVI.A.14.b.ii.2)c) Approved as a "competing application" under the applicable standards of Section 373.233, F.S. Florida Statutes.

XXVI.A.14.b.ii.3) 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 Paragraph XXVI.A.14.a., 14.b.i., and 14.b.ii.1), but not subject to those of Condition Paragraph XXVI.A.14.b.ii.2).

XXVI.A.14.b.iii. 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 500 275 MW (range of 450 200 to 550 350 MW) every four two 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:

XXVI.A.14.b.iii.1) through 2) No change.

XXVI.A.14.c. No change.

XXVI.A.15. 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. in connection with each subsequent application submitted pursuant to Condition XXVI.A.14. 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 ~~The report~~ 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.

~~XXVI.A.16. Within 90 days of completion of construction of the withdrawal facility or prior to activation of a stand-by source, SWFWMD ID Nos. 1, 2, 3, 4, 5, & 6 (PEF ID Nos. P-1, P-2, P-3, P-4, P-5, and PPW-1) shall be equipped with non-resettable, totalizing flow meters, or other measuring devices as approved in writing by the Permitting Department Director, Resource Regulation, unless an extension is granted by the Director. Such devices shall have and maintain an accuracy within five percent of the actual flow as installed. Total withdrawal and meter readings from each metered withdrawal shall be recorded on a monthly basis and reported to the Permits Data Section (using SWFWMD forms) on or before the tenth day of the second month following data collection. If a metered withdrawal is not utilized during a given month, a report shall be submitted to the Permits Data Section indicating zero gallons. Prior to meter installation, non-use shall be documented with monthly pumpage reports indicating zero gallons withdrawn. 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. 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:~~

XXVI.A.16.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.

XXVI.A.16.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.

XXVI.A.16.c. The meters shall adhere to the following requirements and shall be installed or maintained as follows:

XXVI.A.16.c.i. 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.

XXVI.A.16.c.ii. Meters shall be installed on all standby withdrawal facilities prior to activation.

XXVI.A.16.c.iii. The flow meter(s) or other approved device(s) shall have and maintain an accuracy within five percent of the actual flow as installed.

XXVI.A.16.c.iv. The meter shall 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. 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.

XXVI.A.16.c.v. The meter shall be installed in a straight length of pipe where there is a least an upstream length equal to ten (10) times the outside pipe diameter and a downstream length equal to two (2) times the outside pipe diameter. Where there is not at least a length equal to ten (10) times the diameter upstream available, flow straightening vanes shall be used in the line.

XXVI.A.16.c.vi. 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.

XXVI.A.16.c.vii. When the meter has malfunctioned or has been removed 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.

XXVI.A.16.c.viii. 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.

XXVI.A.17. Water quality samples shall be collected and analyzed, for parameter(s), and frequency(ies) specified below. Water quality samples from production wells shall be collected whether or not the well is being used, unless infeasible. If sampling is infeasible PEF FPC 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 Environmental Protection (DEP) certified laboratory in accordance with Chapter 64-E-1 17-160, Florida Administrative Code, "Certification of Environmental Laboratories". F.A.C. 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 ~~Permitting Department Director, Resource Regulation~~. Reports of the analyses shall be submitted to the Permits Data Section (using SWFWMD forms) on or before the tenth 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 ~~Permitting Department Director, Resource Regulation~~, 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). Chapter 17-160, F.A.C.

XXVI.A.18. During drilling of SWFWMD ID Nos. 1 and 5 (PEF ID Nos. P-1 & P-5), water quality samples shall be collected at intervals of 50 feet or less, from 300 feet to a maximum depth of five feet above the bottom of the well. Regardless of the specified sample collection interval, a sample shall be collected from the depth which corresponds to five feet above the bottom of the well. Samples shall be collected during reverse air drilling, or other appropriate method with prior approval by the Bartow Regulation ~~Permitting Department Director, Resource Regulation~~, which will allow representative samples for each depth to be collected.

Samples shall be analyzed by a certified laboratory for chlorides, sulfates, and TDS. 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 Permits Data Section (using SWFWMD forms) within 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 ~~DEP~~ certified laboratory, utilizing the standards and methods applicable to the parameters analyzed and to the water use pursuant to Chapter 64E-1, DEP-certified laboratory. Florida Administrative Code, F.A.C. "Certification of Environmental Laboratories".

Analyses shall be performed according to procedures outlined in the current edition of Standard Methods for the Examination of Water and Wastewater by the American Public Health Association-American Water Works Association-Water Pollution Control Federation (AQHA-AWWA-WPCF) or Methods of Chemical Analyses for Water and Wastes by the U.S Environmental Protection Agency (EPA) Chapter 17-160, F.A.C.

XXVI.A.19. ~~Within 90 days of completion of construction of the first phase power generation facility, FPC shall install and maintain a continuous recording rain gauge in the area around SWFWMD ID No. 1. Total daily rainfall shall be recorded at this station and submitted to the Permits Data Section, on SWFWMD forms on or before the tenth day of the second month following data collection. The reporting period for these data shall begin on the first day of each month and end on the last day of each month. Final location shall be submitted plotted on an original blue line aerial map or United States Geological Survey quadrangle map, or by providing latitude-longitude location. PEF shall maintain a continuous recording rain gauge and an evaporation pan at Latitude 27° 47' 28" and Longitude 81° 52' 17", 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.~~

XXVI.A.20. Any wells not in use, and in which pumping equipment is not installed shall be capped or valved in a watertight ~~water-tight~~ manner in accordance with Chapter 62-17-532.500(3)(a)(4), F.A.C.

XXVI.A.21. 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 ~~value~~ 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 saltwater intrusion.

<u>SWFWMD ID No.</u>	<u>PEF FPC ID No.</u>	<u>Surface Diameter</u>	<u>Minimum Casing Depth</u>	<u>Estimated Total Depth</u>
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.
6	P-6	8 in.	300 ft.	500 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.

XXVI.A.21.a. through d. No change.

XXVI.A.21.e.ii 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 Permitting Department Director, ~~Resource Regulation~~, or the Manager Supervisor of the Well Construction Permitting Section in Brooksville.

XXVI.A.21.f.ii. Advance approval from the Bartow Regulation Permitting Department Director, ~~Resource Regulation~~ is necessary should PEF propose to change the well location or casing diameter.

XXVI.A.22. At least one year prior to the planned production from the first of P-1 FPC-1 through P-5 FPC-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 Permitting Department Director, ~~Resource Regulation~~. The test shall be conducted for a sufficient period of time to determine the leakance parameter between the surficial and intermediate aquifers and the leakance parameter between the intermediate and Upper Floridan aquifers. The test shall be conducted for a minimum of seven 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 Permitting Department Director, ~~Resource Regulation~~. 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.

XXVI.A.23. No change.

XXVI.A.23.a.ii 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 ~~Permitting~~ Department Director, ~~Resource Regulation~~ prior to dewatering within the specified distance. This alternative cannot be used if adjacent lands contain wetlands or other water bodies within 2,640 feet of PEF's dewatering activity.

XXVI.A.23.b.ii 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 ~~Permitting~~ Department Director, ~~Resource Regulation~~. The procedure shall include items a, b, c, d, and e under Condition ~~No.~~ XXVI.A.24.

XXVI.A.24. Prior to dewatering within 2,640 feet of on- or off-site wetlands that will not be disturbed in association with this certification, PEF shall implement a procedure to mitigate impacts by maintaining the water table at historic levels beneath such wetlands or at the property boundary for off-site wetlands. Prior to implementation of the proposed dewatering plan submitted June 28, 1993, PEF must obtain approval, in writing, from the Bartow Regulation ~~Permitting~~ Department Director, ~~Resource Regulation~~. The procedure shall include:

XXVI.A.24.a.ii A water table monitoring network, approved by the Bartow Regulation ~~Permitting~~ Department Director, ~~Resource Regulation~~, designed to demonstrate that water table drawdown does not adversely impact on- or off-site wetlands.

XXVI.A.24.b.ii through d. No change.

XXVI.A.24.c. 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.

XXVI.A.25. PEF is authorized to develop a new water resource through the construction of an Aquifer Recharge and Recovery Project on the Hines Energy Complex site (Hines ARRP) that treats surface water and wastewater and injects or recharges that water, subject to FDEP approval, into the Upper Floridan aquifer, which will be used to store and convey this water for subsequent withdrawal and use. The Hines ARRP shall be operated to offset future groundwater withdrawals as provided in condition XXVI.A.14.b.ii.2). The Hines ARRP shall be developed pursuant to the following criteria:

XXVI.A.25a. Captured rainwater, reclaimed domestic wastewater effluent from the City of Bartow's Douglas H. Allen Reclaimed Water Facility, 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.

XXVI.A.25b. 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;

XXVI.A.25c. On-site recharge wells shall be constructed in accordance with applicable regulatory standards;

XXVI.A.25d. Withdrawal amounts from the new water resource developed through the Hines ARRП shall be as follows:

XXVI.A.25.d.i. 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

XXVI.A.25.d.ii. 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.

XXVI.A.25.e. PEF shall annually submit an ARRП Performance Report which will contain, but shall not be limited to, the following:

XXVI.A.25.e.i. 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

XXVI.A.25.e.ii. A narrative and analysis of the overall performance of the ARRП, addressing strengths, weaknesses, problems, and future plans with time frames for improvement.

XXVI.A.26. 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 nby the Bartow Regulation Department Director, as necessary to ensure the protection of urce.

<u>SWFWMD ID</u> <u>No.</u>	<u>PEF ID No.</u>	<u>Water</u> <u>Body/Wetland</u>	<u>Latitude/Longitude</u>	<u>rding</u> <u>ency</u>
<u>121</u>	<u>HSG-1</u>	<u>Cooling Pond</u>	<u>27°47'41"/81°51'59"</u>	<u>ekly</u>

Water Level Recording Timetable: Weekly Same day of each week

XXVI.A.27. PEF shall meter injections of water into the Upper Floridan aquifer. Meter readings from each injection well shall be recorded on a monthly basis within the week of the month. The meter reading(s) shall be reported to the Permit Data Section, Record Data Department (using SWFWMD scanning forms, unless SWFWMD has approved an 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. All following injection wells shall be metered as applicable:

XXVI.A.27.a. PEF shall install meters on SWFWMD ID Nos. 21, 22, 23, 24, 25, 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.

XXVI.A.27.b. The meters shall adhere to the following requirements and shall be installed or maintained as follows:

XXVI.A.27.b.i. The meter(s) shall be non-resettable, totalizing flow meter. If other measuring device(s) are proposed, prior to installation, approval shall be obtained in writing from the Bartow Regulation Department Director.

XXVI.A.27.b.ii. Meters shall be installed on all standby injection facilities prior to activation.

XXVI.A.27.b.iii. The flow meter(s) or other approved device(s) shall be maintained to an accuracy within five percent of the actual flow as installed.

XXVI.A.27.b.iv. 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.

XXVI.A.27.b.v. The meter shall be installed in a straight length of pipe where there is a least an upstream length equal to ten (10) times the outside pipe diameter and a downstream length equal to two (2) times the outside pipe diameter. Where there is not at least a length equal to ten (10) times the diameter upstream available, flow straightening vanes shall be used in the line.

XXVI.A.27.b.vi. 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.

XXVI.A.27.b.vii. 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.

XXVI.A.27.b.viii. 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.

XXVI.A.28. 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:

XXVI.A.28.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.

XXVI.A.28.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.

XXVI.A.28.c. The meters shall adhere to the following requirements and be installed or maintained as follows:

XXVI.A.28.c.i. 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.

XXVI.A.28.c.ii. The flow meter(s) or other approved device(s) shall have and maintain an accuracy within five percent of the actual flow as installed.

XXVI.A.28.c.iii. 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.

XXVI.A.28.c.iv. 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.

XXVI.A.28.c.v. 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.

XXVI.A.28.c.vi. 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.

XXVI.A.28.c.vii. 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.

XXVI.A.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.

XXVI.A.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.

XXVI.A.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:

XXVI.A.31.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.

XXVI.A.31.b. PEF must concurrently provide a copy of the notification to the FDEP, Office of Siting Coordination.

XXVI.A.31.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.

XXVI.A.31.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.

XXVI.A.31.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.

XXVI.A.31.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.

XXVI.A.31.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.

XXVI.A.31.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-Chmicals 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

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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.

PEF shall provide two written reports to the SWFWMD Permits Data Section regarding its efforts to locate additional sources of water pursuant to this condition. The first report shall be provided no later than December 30, 2003, and the second no later than December 30, 2004. Each 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.

XXVI.A.31.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

Any party to the this Order has a right to seek judicial review of it pursuant to Section 120.68, Florida Statutes by filing a Notice of Appeal, pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department of Environmental Protection in the Office of General Counsel, 3900 Commonwealth Boulevard, M.S. 35, Tallahassee, Florida 32399-3000, and by filing a copy of the Notice of Appeal, accompanied by the applicable filing fees, with the appropriate District Court of Appeal. The Notice of Appeal must be filed within thirty days from the date this Order is filed with the Clerk of the Department of Environmental Protection.

Executed in Tallahassee, Florida.

Hamilton S. Oven

Hamilton S. Oven, P.E.

Administrator, Siting Coordination Office

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

Landa F. Korokos 7/8/03
Clerk Date

CC by U.S. mail:

Jamie Althouse, Esquire

Hines Energy Complex
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Ross Stafford Burnaman, Esquire
Scott Goorland, Esquire
Lawrence D. Harris, Esquire
Joseph Jarrett, Esquire
Martha Moore, Esquire
Colin Roopnarine, Esquire
Norman White, Esquire
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