STATE OF FLORIDA
DIVISION OF ADMINISTRATIVE HEARINGS

IN RE: FLORIDA POWER CORPORATION HINES ENERGY COMPLEX, POWER BLOCK 3, POWER PLANT SITING SUPPLEMENTAL APPLICATION NO. PA92-33SA2.	)	Case No. 02-3529EPP

RECOMMENDED ORDER

Pursuant to 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 May 12, 2003, in Bartow, Florida.

APPEARANCES

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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 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 Progress Energy Florida'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 Chapter 62-17, Florida Administrative Code, to consider PEF's application for site certification for the proposed Hines Power Block 3 (also referred to as the "Project").

On September 4, 2002, Florida Power Corporation ("FPC" or "PEF") filed its Supplemental Application for site certification for the Hines Power Block 3 with the Florida Department of Environmental Protection ("Department" or "FDEP"). (On January 1, 2003, Florida Power Corporation changed its corporate

name to Progress Energy Florida ("PEF")). The application was found to be complete on September 19, 2002. The application was found to be sufficient on February 13, 2003.

On February 4, 2003, the Florida Public Service Commission issued its Final Order determining the need for the proposed electrical power plant.

On April 11, 2003, 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 May 7, 2003, a joint prehearing stipulation was submitted to the undersigned, which indicated that no party to this proceeding objected to certification of the Project.

On May 12, 2003, during the certification hearing, FDEP submitted its revised Staff Analysis Report as FDEP Exhibit 2.

After proper public notice by both PEF and by FDEP, a certification hearing was held in Bartow, Florida on May 12, 2003, 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 3 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 balance the increase in demand for an electrical power plant location and operation with the broad interests of the public. See Section 403.502, Florida Statutes. 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 numbered 1 through 9, 11 and 12 admitted into evidence. These exhibits included the prefiled written testimony of three additional witnesses. That testimony was filed pursuant to Rule 62-17.141(3), Florida Administrative Code. The prefiled written testimony has been accepted based upon execution of affidavits attesting to the accuracy of the testimony and accompanying exhibits. FDEP presented the testimony of Hamilton S. Oven, of the FDEP's Siting Coordination Office, and had FDEP Exhibits 1 and 2 admitted into evidence. No member of the public appeared at the hearing to offer testimony or other evidence on the Project.

Subsequent to the certification hearing, PEF, upon authorization granted at the hearing, submitted its late-filed

exhibit PEF-10, representing the Affidavit of Paul V. Crimi, attesting to his prefiled written testimony and exhibits.

Following the conclusion of the May 12, 2003 hearing, a transcript of the hearing was filed on May 29, 2003. The Joint Proposed Recommended Order of PEF, FDEP, Southwest Florida Water Management District ("SWFWMD"), and Polk County 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 32-county service area in Florida, extending from the middle of the Panhandle down through the center of the state, including the west 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 for over 100 years, beginning in 1899 when it began business as the St. Petersburg Electric Light & Power Company. The Company's generating capacity has grown from an initial generation of 50 kilowatts up to its total generating capacity today of approximately 8,586 megawatts. PEF has a customer growth rate of approximately two percent per year. The Company currently

operates 14 different power plant facilities using a mix of natural gas, oil, coal, and nuclear power.

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 unincorporated community of Homeland lies about one mile to the northeast of the site boundary. County Road 555 runs through the Project site. The Hines site contains approximately 8,200 acres of reclaimed phosphate mine lands. The site is located in a region of the state 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 reclaimed mine lands.

3. The Hines Energy Complex was identified and purchased by then Florida Power Corporation in the mid-1990s. The site was selected following a comprehensive process of locating a suitable site for a large new generating facility. A systematic site selection approach was undertaken to identify sites suitable for multiple units which could accommodate potential clean coal technology, be technology and fuel flexible, be cost effective, be fully compatible with PEF's commitment to environmental protection, be in compliance with applicable government regulations, and be consistent with state and local land use policies. At that time, Florida Power Corporation

solicited the help of a team of community, educational and environmental leaders to evaluate over 50 potential sites in Florida and south Georgia. That two-year process culminated in 1991 with the selection of the Hines site.

4. In January 1994, the Siting Board certified the Hines Energy Complex for an ultimate site capacity of 3,000 megawatts of electrical generating capacity and also granted certification for the construction and operation of an initial 470 MW combined cycle unit known as Power Block 1. In 2001, the Siting Board also granted certification for the construction and operation of Hines Power Block 2, a 530 MW combined cycle unit, which is currently under construction.

5. 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 has been constructed on the site, along with a 311-acre brine pond. A buffer area has been created along the eastern portion of the site containing approximately 2,128 acres. These areas serve as a wildlife corridor as well. Approximately 4,000 acres of the site are designated for water crop areas to supply captured rainfall for use in the power plant.

6. The Hines Energy Complex is served by an existing dual circuit 230 kV transmission line that enters the Hines site from the northwest. A second dual circuit 230 kV transmission line departs the site heading due south. The existing transmission lines are adequate to serve the new Power Block 3. Natural gas is delivered to the Hines Energy Complex by two existing natural gas pipelines, which will serve Power Blocks 1, 2 and 3. Fuel oil is also burned in the existing units and is delivered by truck and stored in an on-site storage tank. That tank is adequate to serve the requirements of Power Block 3.

PROJECT OVERVIEW

7. The Hines Power Block 3 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 3 will be located entirely within the existing Hines Energy Complex site. The unit will be located west of Power Blocks 1 and 2. All construction activities for Power Block 3 will occur within an approximately 5-acre portion of the plant island.

NEED FOR POWER BLOCK 3

8. On February 4, 2003, the Florida Public Service Commission issued a Final Order determining the need for the Progress Energy Florida's Hines Power Block 3 Project. The Public Service Commission determined that the Hines Power Block 3 will be needed by December 2005, 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 reserve margin of generating capacity above the firm demand of PEF's customers. The Public Service Commission also found that the Hines Power Block 3 will contribute to the provision of adequate electricity at reasonable cost. The Project was found to consist of a proven technology at reasonable estimated cost. Construction at the Hines site also allows PEF to take advantage of existing infrastructure at the Hines Energy Complex, thereby saving PEF site development costs. The Public Service Commission also concluded that PEF, in proposing the Hines Power Block 3, 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 3. In conclusion, the Florida Public Service Commission 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 3.

PROJECT SCHEDULE AND CONSTRUCTION

9. The proposed Power Block 3 is very similar both to the existing Hines Power Block 1 and to Power Block 2, which is currently under construction at the Hines site. The proposed

combustion turbines for the new unit are from the same manufacturer, Siemens Westinghouse. Due to normal upgrades in those combustion turbines, they will be able to produce slightly more electrical energy. Engineering of the units will commence in August 2003, and on-site construction will begin no later than the first quarter of 2004. The new unit is proposed to be in service by December 1, 2005.

10. 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 personnel. Existing construction lay down and parking areas will be utilized for Power Block 3. On-site construction will begin with the installation of the circulating water piping and pilings for structural foundations. Power Block 3 will be mechanically complete by August 2005.

11. The construction workforce for Power Block 3 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 and 2, it is expected that most construction workers will be drawn from the Polk County and the central Florida area. Construction employees are expected to commute daily to the job site. Approximately 10-15 percent of

total material and equipment purchases are expected to be made in the central Florida area, including Polk County.

12. No new roads will be required to support construction of Power Block 3 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.

13. Most major earthwork activities for construction for the Power Block 3 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.

14. 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 would include deep foundations such as pilings similar to that used for Power Blocks 1 and 2. Lightly loaded foundations will use spread foundations. Construction dewatering will occur primarily at excavations for the circulating water intake structure and the discharge structure in the cooling pond. Other additional limited dewatering may occur depending upon the amount of rainfall and

the depth of other excavations on-site. Dewatering would be performed using well points or open pit sump pumps, which have a very localized impact area. Any dewatering would all be within the existing plant island area. Dewatering effluent will be routed to the existing on-site stormwater collection ditches for return to the existing cooling pond.

15. 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.

16. On-site construction activities will not cause measurable adverse ecological effects. The five-acre Project area has already been cleared and graded in anticipation of construction of Power Block 3 and other future units. Vegetation coverage in these areas consists of maintained grasslands 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 state or federal jurisdictional wetlands that would be impacted by the development of Power Block 3. Mitigation for wetland impacts occurred as part of the original permitting process for the Hines Energy Complex.

17. Construction noise impacts from construction of all phases up to the 3000 MWs of ultimate site capacity were analyzed as part of the 1992 certification application. It was shown at that time that all of the applicable noise criteria would be complied with during construction. An updated analysis of construction noise reaffirmed the earlier analysis and demonstrated no adverse impacts from construction noise. The nearest residence is approximately 2.5 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.

18. 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.

PROJECT DESCRIPTION

19. Power Block 3 will be similar to the existing Power Blocks 1 and 2 at the Hines site. Power Block 3 is a new combined cycle unit of approximately 530 MWs. It will consist of two advanced Siemens Westinghouse combustion turbines ("CT") designed for dual fuel operation. Each CT will connect to an electrical generator, capable of generating approximately 170 MWs of electricity. Each CT in Power Block 3 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.

20. The normal operating mode for Power Block 3 will be for both CTs to be in operation providing steam from their respective HRSGs to the single steam turbine. However, Power Block 3 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.

The modern combined cycle power plant is one of the most efficient power cycles available today.

21. Natural gas will be the primary fuel used in Power Block 3. Gas will be delivered by the existing gas pipelines that serve the Hines Energy Complex. Fuel oil will be delivered by truck to the existing fuel unloading facilities and stored in the existing on-site fuel storage tanks.

22. The existing on-site electrical switchyard will be expanded to provide electrical transmission interconnection for Power Block 3. No new off-site transmission lines will be required for Power Block 3.

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

24. Solid wastes that may be generated by Power Block 3 include circulating water system screenings, sanitary waste solids, water treatment filter backwash solids, office solid

wastes, 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 system screenings 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.

WATER USE AND SUPPLY

25. The 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 3 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. A new discharge structure will also be constructed in the cooling pond. There will be no need to

expand the size of the cooling pond to accommodate Power Block 3.

26. The existing 722-acre cooling pond will supply cooling water and other water needs for Power Block 3. All process water needs for Power Block 3 will be supplied from the existing cooling pond. Water is pumped from the pond to the existing water treatment area east of Power Block 1. 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 nitrogen oxide (NO_x) emissions.

27. The reverse osmosis equipment in the demineralized water system produces a brine reject that will be pumped to the existing on-site brine pond. The other wastewater streams from Power Block 3 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 will be properly disposed. All wastewaters will be collected and processed as appropriate and pumped back to the cooling pond. The cooling pond has no discharge to area surface waters.

28. 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 and the proposed Power Block 3 is approximately 9.3 million gallons per day. This includes an increase in evaporation of 2.2 million gallons per day for Power Block 3. This loss of water needs to be replenished to keep the cooling pond operating and keep the plant continuing in operation.

29. It has been determined that, over the long term, Power Block 3 will require an average annual daily water supply of 2.6 million gallons per day, and a peak monthly water supply need of 4.4 million gallons per day. This is needed to replace evaporation from the pond and to supply the process water needs

for the new unit. The existing Conditions of Certification for the Hines Energy Complex authorize the use of at least 5 million gallons per day of groundwater beginning with the third generating unit at the Hines Energy Complex. 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. The water needs for Power Block 3 will be supplied from these previously approved quantities of groundwater. The water will be pumped from the Upper Floridan Aquifer from two new on-site wells located south of the cooling pond. They will be spaced to minimize interference during simultaneous pumping operations. The wells will have a diameter of 20 inches and the casing will be set to a depth of 360 feet below land surface. The total depth of these two production wells will be 880 feet below land surface.

30. Under the proposed 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 and the water that is stored in the on-site water cropping areas have been depleted. The normal pond operating level is proposed to range between 159 and 163 feet above National Geodetic Vertical Datum ("NGVD"). 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 for Power Block 3 will not have any adverse impacts on existing legal users of water in the vicinity of the Project. PEF has investigated other reasonably obtainable sources of water in the region and found none that could meet the needs for Power Block 3 beginning in November 2005, when the unit is to begin operation.

31. 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 combined cycle combustion turbine design that uses water conserving electric generation technologies, retention of any dewatering effluents on-site, on-site rainwater and stormwater capture and reuse in the cooling pond, return of internal wastewater streams to the cooling pond for reuse, and reuse of treated wastewater from sewage treatment facilities.

32. 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 the water cropping system, precipitation that falls within the dams in the water cropping areas of the Hines Energy Complex will be captured, temporarily

stored and routed to the cooling pond as needed. This captured rainfall is used to make up for evaporative losses. In addition, recycled plant wastewaters and treated wastewater from the City of Bartow are the other primary sources of water for Hines Power Blocks 1 and 2. The City of Bartow currently provides approximately 1.7 million gallons per day of treated wastewater for use at the Hines Energy Complex.

33. PEF is also pursuing other activities for the potential development of water resources at the Hines Energy Complex. This involves preparing an integrated water supply plan for the site. The plan will be incorporated into the site certification through separate modification requests. One component of this plan is an aquifer recharge and recovery project ("ARRP"). This Project will take stormwater and reclaimed effluent and provide additional on-site treatment to comply with FDEP's groundwater standards. The treatment will take place in on-site treatment wetlands and sand filters. Once treated, the water would be injected into the Floridan Aquifer through an on-site recharge well for later use at the Hines Energy Complex and for aquifer enhancement. Under this proposal, PEF would withdraw 85 percent of the total water injected into the aquifer; the remaining 15 percent will not be withdrawn in order to provide water resource enhancement to the aquifer. PEF will also continue to investigate and report to

the Southwest Florida Water Management District on evaluation of alternative sources of reclaimed water and of the feasibility of using brackish groundwater resources to minimize the use of fresh groundwater resources.

AIR EMISSIONS

34. The primary air pollutants emitted from Hines Power Block 3 will include nitrogen oxides ("NO_x"), carbon monoxide ("CO"), volatile organic compounds ("VOC"), 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 or light oil in the CTs. Emissions of NO_x, CO, and VOC will result from the combustion process. Emissions of PM and sulfur dioxide result from trace impurities in the fuel itself.

35. Air emissions from Power Block 3 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 720 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 3.

36. The Hines Power Block 3 is required to meet federal and state new source performance standards ("NSPS") and best available control technology ("BACT") requirements, both of which limit 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.

37. Hines Power Block 3 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, VOC, and sulfuric acid mist because these emissions are greater than the established PSD thresholds. FDEP has independently prepared a draft PSD review for Power Block 3 that will be addressed in FDEP's separately-issued PSD permit for the Project.

38. The BACT analysis for Hines Power Block 3 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. A BACT analysis is performed first by identifying available and technically feasible emission control alternatives and then evaluating their degree of emission reduction, costs and adverse impacts. The BACT limit arrived at for each pollutant is the most stringent degree of emission control that is not rejected on the basis of economic, energy, environmental or other technical grounds.

39. For NO_x, in its separate draft PSD analysis, 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. These limits are equivalent to emission limits established on other similar units in Florida.

40. For emissions of carbon monoxide, in its PSD analysis, FDEP preliminarily has determined for this facility, a BACT

limit of 10 parts per million during natural gas firing and 20 parts per million during oil firing, which will be achieved using good combustion techniques.

41. In its preliminary PSD analysis, FDEP has determined for this facility that sulfur dioxide emissions, including sulfuric acid mist, will be controlled through the use of clean fuels. In its draft PSD analysis, FDEP has also determined for this facility that BACT limits for particulate matter for Power Block 3 will be achieved through the use of clean fuels, natural gas and low sulfur fuel oil.

42. Fuel oil firing will be limited to a maximum of about 720 hours per year. For VOC, emissions will be controlled using good combustion, and in its PSD analysis, FDEP has determined preliminarily for this facility that BACT limits will be 2 parts per million during gas firing and 10 parts per million when firing low sulfur fuel oil.

43. The air emissions from Power Block 3 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.

44. Air emissions from Power Block 3 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 indicated that Power Block 3 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 ambient air quality standards. 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 to not be significant in the PSD Class I area.

45. Air emissions from Power Block 3 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 Class I area demonstrated no adverse impact on visibility at that location due to Power Block 3.

NOISE

46. Noise impacts during construction and operation of Power Block 3 were shown not to be significant, and the expected increase in noise will be below levels noticeable by human hearing. 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 during the permitting of Power Block 2, 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. Mining activities in the surrounding area result in considerable traffic on nearby roads, causing noise levels to exceed the EPA guideline of 55 decibels ("dBa"). Without the area traffic, noise levels meet the EPA guidelines. Using a conservative approach which tends to overstate the Project impacts, noise impacts due to Power Block 3 would increase by less than 1 dBa at the nearest receptor and will not be significant. Similar noise level increases were predicted for plant construction. Therefore, the Project will meet applicable noise criteria and no significant noise impacts will occur as a result of the Project.

LAND USE AND SOCIOECONOMIC IMPACTS

47. The Plant Island, where Power Block 1 is in operation and where Power Block 3 will be constructed, is located near the southern end of the site.

48. 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 3.5 miles east of the Plant Island, and the unincorporated community of Homeland is more than 2.5 miles northeast of the Plant Island. The nearest residential use is three homes located more than 2.5 miles from the southern boundary of the Plant Island. Otherwise, the entire area surrounding the proposed power plant site consists of phosphate mines.

49. The site is buffered from surrounding populations at Homeland and Fort Meade by an extensive buffer area on the eastern perimeter of the site.

50. 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.

51. There have not been any changes in the area surrounding the Hines Energy Complex that would change the land use and socioeconomic conclusions reached in the Final Order of Certification issued for the site by the Siting Board on January 27, 1994.

52. No land use or socioeconomic impacts will be associated with construction of Power Block 3 that were not previously addressed in the Final Order of Certification for the Hines Energy Complex in 1994.

53. The number of indirect jobs in Polk County resulting from construction of Power Block 3 will be approximately 113. These jobs will generate earnings of about $11 million. They will primarily be in manufacturing of fabricated metal products, retail trade, real estate, business services, and health services sectors of the local economy.

54. The land use impacts from development of Power Block 2 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 3. Annual payroll was $2.7 million in 2002. The annual payroll will increase by about $500,000 (2002 dollars) when Power Block 3 becomes operational in 2005.

55. The estimated number of new indirect jobs from the operation of Power Block 3 is 10, generating earnings of $458,000 per year. These jobs will primarily be in construction, retail trade, real estate, business services and health services sectors of the local economy.

56. The estimated increase in property taxes for Power Block 3 is $3.4 million. Over one-half of this revenue goes to support the Polk County school system. Since Polk County is required to provide very few services to the Hines Energy Complex, the net benefit of these revenues to the County and the local school system is substantial.

AGENCY POSITIONS AND STIPULATIONS

57. The FDEP, the Florida Department of Community Affairs ("DCA"), the FDOT, the Florida Fish and Wildlife Conservation Commission, and the Southwest Florida Water Management District each prepared written reports on the Project. Each of these agencies either recommended approval of Hines Power Block 3 or otherwise did not object to certification of the proposed power plant. FDEP has proposed a series of Conditions of Certification for the Project that incorporate the recommendations of the various reviewing agencies. PEF states that it can comply with these Conditions of Certification in the design, construction, and operation of the Hines Power Block 3. No state, regional, or local agency has recommended denial of certification of the Project or has otherwise objected to certification of the Project.

CONCLUSIONS OF LAW

58. The Division of Administrative Hearings has jurisdiction over the parties to and the subject matter of this proceeding. Section 403.508(3), Florida Statutes (2002)

59. This proceeding was conducted to implement the purpose 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 3 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. Section 403.502(1)-(2), Florida Statutes

60. In accordance with Chapters 120 and 403, Florida Statutes, and Chapter 62-17, Florida Administrative Code, 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.

61. The Florida Public Service Commission, in an order dated February 4, 2003, 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.

62. 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. 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.

63. The Florida Department of Environmental Protection and the other participating agencies have all recommended certification of the Hines Power Block 3 for construction and operation, subject to this Recommended Order and to the conditions of certification recommended by FDEP. Progress Energy Florida, the applicant, 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 3.

64. Based upon a preponderance of the evidence presented at the certification hearing held on May 12, 2003, Progress Energy Florida has met its burden of proving that the Hines Power Block 3 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 3 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, incorporated herein by reference, 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 effect a reasonable balance between the environmental and other impacts which might occur and the need for the Project as separately determined by the Public Service Commission.

RECOMMENDATION

Based upon the foregoing Findings of Fact and Conclusions of Law, it is

RECOMMENDED that the Siting Board grant full and final certification to Progress Energy Florida to construct and operate a new 530 MW natural gas-fired electrical power plant in Polk County, Florida, subject to the conditions of certification contained in FDEP Exhibit 2 and incorporated herein by reference.

DONE AND ENTERED this 10th day of June, 2003, in Tallahassee, Leon County, Florida.

CHARLES A. STAMPELOS
Administrative Law Judge
Division of Administrative Hearings
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Filed with the Clerk of the
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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.