PSD-FL-254 PERMITTING HISTORY

Kissii	mmee I	Itility A	Autho	rity	
Cane	Island	Power	Park	Unit 3	,

Facility ID No.: 0970043

PSD Permit History (for tracking purposes):

	Issue	PERMITTING ACTION DESCRIPTION	
Permit No.	Date		
PSD-FL-254	11/24/99	PA.98-38. Permit to construct/install a 250 MW combined cycle unit. Dual Fuel- 720 hr/yr on oil.	

DEP ROUTING AND TRANSMITTAL SLIP		
TO: (NAME, OFFICE, LOCATION) 1. Claur Fanox DARM. 2.	3	
PLEASE PREPARE REPLY FOR:	COMMENTS:	
SECRETARY'S SIGNATURE	Final Order approving	
DIV/DIST DIR SIGNATURE	Certification for the Resummer	
MY SIGNATURE	Certification for the Resummer Utility authority's FMPA's Care	
YOUR SIGNATURE	Island Power Park is	
DUE DATE	enclosed.	
ACTION/DISPOSITION	Inclosed.	
DISCUSS WITH ME		
COMMENTS/ADVISE		
REVIEW AND RETURN	Dro-	
SET UP MEETING	RECEIVED	
FOR YOUR INFORMATION	NOV 2 4 1999	
HANDLE APPROPRIATELY	BUREAU OF AIR REGULATION	
INITIAL AND FORWARD	· ··-GOLATIO:	
SHARE WITH STAFF		
FOR YOUR FILES		
FROM: M. Mornhan	DATE: 11/23/99 PHONE: 1-9720	

DEP 15-026 (12/93)

0GC-71

STATE OF FLORIDA DIVISION OF ADMINISTRATIVE HEARINGS

KISSIMMEE UTILITY AUTHORITY (CANE ISLAND POWER PARK),

Petitioner,

vs.

Case No. 98-3619EPP

DEPARTMENT OF ENVIRONMENTAL PROTECTION,

Respondent.

PSD-F1-254

ORDER OF ADOPTION

THIS CAUSE came on for consideration upon the Joint Motion for Corrected Recommended Order, and the Jointly Filed Proposed Corrected Recommended Order both filed on September 10, 1999. It is, therefore,

ORDERED that the Jointly Filed Proposed Corrected

Recommended Order, a copy of which is attached, is ADOPTED by
this order and incorporated by this reference as though fully
stated herein.

DONE AND ORDERED this 23M day of September, 1999, in Tallahassee, Leon County, Florida

DANIEL MANRY

Administrative Law Judge

Division of Administrative Hearings

The DeSoto Building

1230 Apalachee Parkway

Tallahassee, Florida 32399-3060

(850) 488-9675 SUNCOM 278-9675

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Filed with the Clerk of the Division of Administrative Hearings this 23/4. day of September, 1999.

COMPOCINE TANDED TO

COMPOSITE EXHIBIT A

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STATE OF FLORIDA DIVISION OF ADMINISTRATIVE HEARINGS: SEP 10 PM 0:43

IN RE: KISSIMMEE UTILITY AUTHORITY and FLORIDA MUNICIPAL POWER AGENCY (CANE ISLAND POWER PARK), POWER PLANT SITING APPLICATION PA 98-38)))	DOAH CASE NO. 98-2297 CELLED
)	

JOINTLY FILED PROPOSED CORRECTED RECOMMENDED ORDER

Pursuant to notice, this cause came on for formal hearing before Daniel Manry, duly designated Administrative Law Judge of the Division of Administrative Hearings, in Kissimmee, Florida on June 1, 1999. The appearances were as follows:

APPEARANCES

For the Kissimmee Utility Authority:

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For the Department of Environmental Protection:

SCOTT A. GOORLAND

Assistant General Counsel

State of Florida

Department of Environmental Protection

Office of General Counsel

3900 Commonwealth Boulevard, MS-35

Tallahassee, Florida 32399-3000

DOCKET AND GIVE TO JUDGE.
FILE IN CASE FILE AFTER REVIEW. Exhibit "A"
NO COPY MADE. INITIALS ______

STATEMENT OF THE ISSUE

The issue to be resolved in this proceeding concerns whether certification should be granted to the Kissimmee Utility Authority and Florida Municipal Power Agency (KUA/FMPA) for Cane Island Units 1, 2 and 3 (Units 1-3) at the KUA Cane Island Power Park in Kissimmee, Florida, in accordance with the pertinent provisions of Sections 403.501 through 403.518, Florida Statutes.

PRELIMINARY STATEMENT

This proceeding arose on the application by the Kissimmee Utility Authority and Florida Municipal Power Agency ("KUA/FMPA") for a power plant site certification for their existing Units 1 and 2 and the proposed Cane Island Unit 3 and associated facilities (the Cane Island Unit 3 project). The project and the application include construction of a proposed, new, off-site 230 kilovolt (kV) transmission line to connect to Florida Power Corporation's Intercession City generating plant located one-quarter mile to the west of the Cane Island site boundary.

The Florida Public Service Commission ("PSC") issued a determination of need for Unit 3 on October 7, 1998, in accordance with Section 403.519, Florida Statutes. Thereafter, a landuse hearing was conducted before the undersigned on November 17, 1998, in accordance with Sub-Sections 403.508(1) and (2) and 403.5175(3), Florida Statutes. A Recommended Order was entered and that Recommended Order was adopted by the Governor and Cabinet sitting as the Siting Board on March 9, 1999.

The subject certification hearing was held as noticed on June 1, 1999, in accordance with Section 403.508(3), Florida Statutes. The hearing was conducted for the purpose of receiving evidence concerning whether there is compliance with criteria contained in Section 403.5175, Florida Statutes; 403.502, Florida Statutes; and Section 403.519, Florida Statutes.

KUA/FMPA presented prefiled written testimony of fourteen (14) witnesses and thirteen (13) exhibits numbered KUA-1 through KUA-13, including the Cane Island Units 1-3 Site Certification Application (SCA) as amended and identified as Exhibit KUA-6. A Joint Stipulation Between the Parties stipulating to the prefiled testimony and exhibits, stipulating to acceptance of the expert witnesses, stipulating that there were no facts at issue, and stipulating to the proposed Conditions of Certification was presented by KUA/FMPA. The KUA/FMPA expert witnesses were admitted as proffered, as was the KUA/FMPA prefiled testimony, exhibits, and Joint Stipulation Between the Parties. The witnesses and exhibits are more particularly described in the record in this proceeding, a transcript of which has been filed.

The Department of Environmental Protection presented the testimony of Hamilton S. Oven, Jr., Administrator of the Siting Coordination Office of the Department of Environmental Protection ("DEP" or "Department") and a licensed professional engineer. He was admitted as an expert in electrical power plant siting and the power plant siting process. The Department had three (3) exhibits admitted into evidence (DEP-Ex.1 through DEP-Ex.3), including Mr. Oven's resumé.

Opportunity was afforded for members of the general public to appear; however, no members of the public appeared.

Upon concluding the taking of evidence, KUA/FMPA elected to order a transcript of the proceedings. Accordingly, a Proposed Recommended Order was timely submitted and has been considered in the rendition of this Recommended Order.

FINDINGS OF FACT

1. The Kissimmee Utility Authority and Florida Municipal Power Agency are each fifty (50) percent joint owners of Cane Island Units 1 and 2 (Sharma prefiled test. at 3).

- 2. The Cane Island Power Park ("Power Park") is an existing power plant site located in an unincorporated area of Osceola County, situated five (5) miles west of the City of Kissimmee, one (1) mile northwest of Intercession City and just north of the Old Tampa Highway (Site Certification Application, Vol. 2, at 2-1). The Reedy Creek Swamp surrounds the site on three sides (DEP-Ex.2 at 12). The site is bordered on the south by the CSX railroad. Id. The lands bordering the site on the west, north, and northeast are uninhabited conservation areas. Id. During permitting of Cane Island Units 1 and 2, approximately 876.1 acres of the Power Park uplands and wetlands were dedicated to the South Florida Water Management District ("SFWMD") as a conservation area. Id. The nearest residents are located approximately 0.6 mile to the south of the generating Units along Old Tampa Highway and 0.8 mile to the southeast. Id.
- 3. The Cane Island Power Park encompasses approximately 1,026.5 acres (Site Certification Application, Vol. 2, at 2-1). Of approximately 1,026.5 acres only approximately 150.4 acres have been allocated for development of power generation and support facilities (<u>Id.</u>; DEP-Ex.2 at 1). The proposed Unit 3 will be constructed on approximately five (5) acres of that approximately 1,026.5 acre existing Power Park site (SCA, Vol.2 at 4-1).
- 4. The Department is an agency of the State of Florida charged, in pertinent part, with jurisdiction over and regulation of the certification of power plant siting and operation, in accordance with the various provisions of the Florida Electrical Power Plant Siting Act, Sections 403.501-403.518, Florida Statutes, and related rules cited and discussed elsewhere herein.
- 5. Notice of the certification hearing was accorded to all parties entitled thereto as well as to the general public (KUA-Ex.2 G and H).
- 6. The existing Power Park began commercial operation in 1995. It currently consists of a simple cycle combustion turbine generating unit known as Unit 1, a combined cycle

combustion turbine generating unit known as Unit 2, a fuel oil unloading facility, a switch yard, industrial wastewater treatment facilities, water tanks, two (2) No. 2 fuel oil storage tanks, water treatment facilities, as well as maintenance shops and a warehouse (SCA, Vol. 2 at 1-1, Fig. 2.1-3).

7. The on-site facilities of the Cane Island Unit 3 project consist of a new combined-cycle electric generating unit which includes one combustion turbine, a heat recovery steam generator and a steam turbine generator (SCA, Vol. 2, at 2-1). An additional 1 million gallon No. 2 oil storage tank is planned for installation that will allow all the Cane Island units to operate at full load for approximately three days on No. 2 oil (Sharma prefiled test. at 4). A second mechanical draft cooling tower using treated sewage effluent from the City of Kissimmee effluent pipeline will be installed to provide cycle cooling water for Unit 3 (DEP-Ex.2 at 9). Additionally, a new 230 kV transmission line will be constructed from the plant to Florida Power Corporation's Intercession City Plant (SCA, Vol. 2 at 6-1).

CONSISTENCY AND COMPLIANCE WITH LOCAL COMPREHENSIVE PLAN AND LAND DEVELOPMENT CODES

8. On November 17, 1998, the Division of Administrative hearings conducted a public hearing as required by Section 403.508, Florida Statutes, to determine whether the power plant site would be consistent and in compliance with existing land use plans and zoning requirements. Id. On December 8, 1998, the Administrative Law Judge issued an Order of Adoption that recommended, "that the site as used and proposed is consistent and in compliance with the land use plans and zoning ordinances of Osceola County". Id. On March 9, 1999, the Siting Board adopted the Administrative Law Judge's Order and found the site as used, and as proposed to be used, consistent and in compliance with Osceola County's land use plans and zoning ordinances. Id.

9. Unit 3 will further the goals, objectives, and policies of the Economic Development Element of the Osceola County Comprehensive Plan. (Joint Stipulation at 5.) The construction phase of Unit 3 is expected to create approximately 240 temporary jobs during the peak of construction. (Grotts prefiled test. at 6.) KUA will retain two additional full-time workers to assist with operation of Unit 3. <u>Id.</u> at 8.

PSC NEED DETERMINATION

10. On October 7, 1998, the Public Service Commission issued Order No. PSC-98-1301-FOF-EM, determining the need for the proposed combined cycle Unit 3 to be constructed at Cane Island Power Park. (DEP-Ex.2, App. IIA.)

CAPITAL COSTS AND SCHEDULING

- 11. KUA/FMPA will invest approximately \$117.6 million in Unit 3 and its associated facilities. (Sharma prefiled test. at 5.)
- 12. Mobilization and physical construction of Unit 3 are scheduled to begin on October 1, 1999, with commercial operation commencing on June 1, 2001. (Sharma prefiled test. at 5.)

GENERATING UNITS

13. Cane Island Unit 3 will be a 1-on-1, "F" class combined cycle unit consisting of one combustion turbine, one heat recovery steam generator (HRSG) and one steam turbine. The estimated net output of the unit at International Organization for Standardization (ISO) conditions is 262 MW which includes a reduction of four (4) percent for degradation. Current plans are for the unit to have evaporative cooling and a small amount of duct firing to allow the steam turbine to be fully loaded during hot ambient temperatures. The unit will burn natural gas

as a primary fuel and will be capable of burning low sulfur, No. 2 oil as backup fuel. (Sharma prefiled test. at 4.)

14. The existing Unit 1 is a nominal, 40 MW simple cycle, combustion turbine unit. (SCA, Vol. 2, at 1-1.) Existing Unit 2 is a nominal, 120 MW combined-cycle unit. <u>Id.</u> With the addition of Cane Island Unit 3, the generating capacity at the Cane Island Power Park will more than double from 160MW to approximately 410MW.

TRANSMISSION FACILITIES

capacity is delivered through 230KV and 69KV transmission lines to eight (8) distribution substations. (Sharma prefiled test. at 4.) Unit 3 will use some of the existing transmission facilities. The addition of Unit 3 will require the construction of a new, offsite, 230KV transmission line to be constructed from the plant to Florida Power Corporation's Intercession City Plant located west of Reedy Creek. (DEP-Ex.2 at 11.) The initial segment of the proposed transmission line will be constructed on existing transmission structures as the line exits the Power Park switch yard. (DEP-Ex.2 at 11.) It will then be constructed as a single circuit design on single pole, tubular steel structure with drilled concrete pier foundations capable of supporting a double circuit in a 120 foot wide right-of-way. Id. Construction of a portion of the line will require crossing and clearing wetland areas associated with the Reedy Creek Swamp. Id. An associated access road will be constructed to allow for erection and maintenance of the line. Id. Overall, adverse environmental impacts from the construction of new transmission line are expected to be slight. Id. No long-term, significant changes in diversity or abundance of wildlife are expected. Id.

16. Both the electric and magnetic fields for the new transmission line will be in compliance with all applicable standards of Chapter 62-814, Florida Administrative Code, Electric and Magnetic Fields. (DEP-Ex.2 at 11.)

NATURAL GAS PIPELINE LATERAL

17. The natural gas to be used to fuel Unit 3 will be pumped to the site by way of the existing Florida Gas Transmission system utilizing the existing KUA lateral. (DEP-Ex.2 at 9.) All fuel handling and metering facilities, will meet the applicable requirements of the Florida Department of Environmental Protection, as specified in Chapter 62-762, F.A.C., and will meet all applicable requirements of the applicable National Fire Prevention Association codes. <u>Id.</u>

WASTEWATER TREATMENT

- 18. Sanitary wastewater produced during normal plant operations will continue to be routed to the onsite septic tank and drain field system. (DEP-Ex.2 at 10.) The two new employees expected to be associated with Unit 3 will increase sanitary wastes by approximately 80 gallons per day (gpd). <u>Id.</u> This minor increase in the current 3,000 gpd flow can be adequately accommodated by the existing system. <u>Id.</u>
- 19. Process wastewaters consist of service water treatment system backwash water, water from equipment and floor drains, neutralization basin effluent, steam cycle (boiler) blowdown and evaporative cooling tower blowdown. <u>Id.</u> These wastewaters are now being treated appropriately by the onsite, industrial waste treatment system. <u>Id.</u> Neutralized wastewater from this system, steam cycle blowdown, and cooling tower blowdown from Unit 3 operations will be treated and discharged to the City of Kissimmee municipal effluent pipeline as is currently done. <u>Id.</u>

20. Water discharging through plant floor drains with the potential for oil contamination is routed through an oil/water separator and percolation pond for treatment before discharge to onsite groundwater. (SCA, Vol. 2 at 5-25.)

WELL FIELD

21. Groundwater withdrawals from the two (2) existing deep wells that serve the Cane Island Power Park are permitted by the SFWMD. (SCA, Vol. 2, at 5-29.) The current annual allocation is 75 million gallons. <u>Id.</u> These wells will also supply Unit 3 service and potable water demands. (DEP-Ex.2 at 50.) KUA/FMPA has requested authorization for the use of well water under emergency conditions, such as the disruption of effluent supply from the City of Kissimmee. (Sommerfield prefiled test. at 5-6.) The annual allocation requested, which includes the emergency use, is 283 million gallons. (DEP-Ex.3 at 48.) Four new wells will be installed onsite to provide the emergency use withdrawals (DEP-Ex.2 at 50.) No adverse impacts are anticipated from the increased withdrawals. (Sommerfield prefiled test. at 7.)

FUEL SUPPLY AND STORAGE

- 22. A new 1 million gallon, above-ground fuel oil (No. 2) storage tank will be added at the Power Park for Unit 3 (SCA, Vol. 2, at 3-7). This tank will tie into and use the existing backup fuel system associated with Units 1 and 2. <u>Id.</u>
- 23. The existing fuel oil storage consists of two above-ground tanks (one 300,000 gallon tank for Unit. 1, and one 700,000 gallon tank for Unit 2). <u>Id.</u> The construction, materials, installation and use of the bulk storage tanks conform to American Petroleum Industry (API) Standard 650, American Institute of Steel Construction (AISC), American Society for Testing and Materials (ASTM), national Electric Code (NEC), and Occupational Safety and Health

Administration (OSHA) standards. <u>Id.</u> The locations of these storage tanks are indicated on the Site Arrangement, Figure 2.1-3 of the Site Certification Application, Volume 2.

- 24. Fuel will be delivered to one of the three vertical oil storage tanks by tanker truck. <u>Id.</u> The containment area for each fuel oil tank is provided by an earthen berm. <u>Id.</u> Each berm is designed to meet DEP requirements to provide containment for both 110 percent of the storage capacity of the largest tank within the impoundment and a sufficient allowance for the design (10 year, 24 hour) rainfall storm event (approximately 7 inches). <u>Id.</u> In addition, each containment area is provided with a synthetic liner which is protected with approximately 6 inches of sand. <u>Id.</u> The liner is sufficiently impermeable to ensure that no oil can escape by infiltrating through the liner and soil, and into surface or ground waters as required by DEP regulation. <u>Id.</u>
- 25. The fuel oil truck unloading station is located south of the Unit 1 storage tank as indicated on the Site Arrangement. <u>Id.</u> The unloading station consists of above ground and double-walled, below grade piping running to the storage tanks outside and inside each of the earthen berms. <u>Id.</u> The unloading station includes a manually operated isolation valve and a check valve immediately adjacent to the unloading station. <u>Id.</u> This allows immediate isolation of the piping system from a spill at the delivery truck and prevents backflow spillage of oil from the system. <u>Id.</u>
- 26. KUA's existing Spill Prevention, Control and Countermeasures Plan and Facility Response Plan will be modified as required to include Unit 3 facilities. <u>Id.</u>

FOUNDATION STABILITY

27. The geology of the Cane Island site consists of 30 to 50 feet of loose to medium dense sands with intermittent layers of clayey and silty sands. Underlying the surficial layer was 30 to 50 feet of clayey silt, silty clay, and clayey sand. Limestone was encountered from 68 to

102 feet below ground surface. Some localized areas of buried karstic activity were identified at the site and were classified as past activity. (SCA, Vol 2, at 2-30 and 2-31.)

28. Foundations for Unit 3 are to be similar to the foundations types utilized for Units 1 and 2. The existing units were constructed using shallow foundations consisting of mats and spread and strip footings. Ground improvement methods consisting of stone columns, deep dynamic compaction and compaction grouting were utilized to prepare the subsurface materials for the constructed facilities. (SCA, Vol. 2 at 2-31.)

ARCHEOLOGICAL AND HISTORIC SITES

29. The Florida Department of State, Division of Historical Resources ("DOS DHR") determined that the existing site was not likely to include significant archaeological or historical resources and that the Cane Island project is unlikely to affect any properties listed, or eligible for listing, in the National Register. (DEP-Ex.2, at 6.)

LAND-USE COMPATIBILITY

- 30. Construction noise, including preoperation steam pipe blowing and steam venting, may be noticed by some neighbors. <u>Id.</u> at 12. Construction noise levels for site clearing and steel erection are estimated to be between 40-45 decibels (dBA) at residences nearest the site. <u>Id.</u> The cleaning of steam lines will generate loud noise in two to three minute bursts over a period of several weeks. <u>Id.</u> A public notification response program will help mitigate the disturbance of the steam blows to nearby residents. <u>Id.</u> Noise levels during operation should not increase significantly. <u>Id.</u>
- 31. Traffic impacts of the Unit 3 construction are expected to cause an increase in local traffic, especially on Old Tampa Highway and US Highway 17/92. <u>Id.</u> The increased traffic is not expected to exceed the Level of Service designated for the impacted roadways and

intersection. <u>Id</u>. During operation of Unit 3, there will be a slight increase in traffic due to the two additional workers on site and a slightly more frequent delivery of supplies or fuel to the site. <u>Id</u>.

32. The developed portion of the Power Park site is a sufficient distance from existing public roads such that the intervening wooded areas conceal the facilities from public view. Id. The screening vegetation also acts as a muffler to reduce operational noise as well as construction noises. Id. The presence of the swamp system associated with Reedy Creek will continue to act as a barrier to development in the immediate site vicinity on the east, north and west. Id. at 13. This site location insures that construction of Unit 3 and operation of the Power Park will cause minimal disturbance to citizens of Osceola County. Id.

SOCIOECONOMIC IMPACTS

- 33. The construction of Unit 3 will have a positive impact on the local economy, providing approximately 240 jobs at the peak of construction during the 20-month construction period (Grotts prefiled test. at 6; SCA, Vol. 2 at 4-16). The vast majority of the construction work force is expected to be filled by workers already residing in the study area (Grotts prefiled test. at 6). Direct construction payroll will be approximately \$18 million. Id. Most of this payroll amount, therefore, will directly benefit the area's economy. Id. at 6-7.
- 34. There will be no significant, long-term increase in demand by the Cane Island Power Park for public services, either directly or indirectly, through any increase in population attributable to increased staffing. While the influx of the construction work force may increase the demand for services from local governments and nearby service providers, representatives of these entities have indicated that they have more than enough service capacity to accommodate the construction work force (Grotts prefiled test. at 7).

AIR QUALITY

- 35. The Unit 3 combustion turbine is subject to pre-construction review requirements under the provisions of Chapter 403, Florida Statutes, and Chapters 62-4, 62-204, 62-210, 62-212, 62-214, 62-296 and 62-297, Florida Administrative Code ("F.A.C."). (DEP-Ex.2 at 16.)
- 36. The Cane Island Power Park is located in Osceola County, an area designated as an attainment area for all criteria pollutants in accordance with Rule 62-204.360, F.A.C. Id.
- 37. The Unit 3 combustion turbine is subject to review under Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD), because the potential emission increases for particulate matter/particulate matter less than 10 microns (PM/PM₁₀), carbon monoxide (CO), volatile organic compounds (VOC) and nitrogen oxides (NO_X) exceed the significant emission rates given in Chapter 62-212, Table 62-212.400-2, F.A.C. The PSD review consists of a determination of Best Available Control Technology (BACT) for PM/PM₁₀, VOC, CO and NO_X, an analysis of air quality impacts on soils, vegetation and visibility and an analysis of air quality impacts resulting from associated commercial, residential and industrial growth. <u>Id.</u>
- 38. The Unit 3 combustion turbine will increase emissions of four pollutants at levels in excess of PSD significant amounts: PM₁₀, CO; NO_X; and VOC. PM₁₀ and NO_X are criteria pollutants and have defined national and state ambient air quality standards (AAQS), PSD increments and significant impact levels. CO and VOC are criteria pollutants and have only AAQS and significant impact levels defined. Since the project's VOC emissions increase is less than 100 tons per year, no air quality analysis is required for VOC. <u>Id</u>. at 19.
- 39. Air emissions from the Unit 3 combustion turbine must not cause or contribute to a violation of federal and state ambient air quality standards and PSD increments. All of Osceola County is classified as a Class II area for PSD purposes. The Class I area nearest to the Cane

Island Power Park is the Chassahowitzka National Wilderness area, located approximately 105 km northwest of the site. Id.

- 40. An air quality analysis, undertaken in accordance with computer modeling procedures approved in advance with the DEP, demonstrated that the project resulted in no significant air quality impacts arising from the emissions. Therefore, further air quality impact studies which would include AAQS/NAAQS and PSD increment impact analyses for these pollutants were not required. <u>Id.</u>
- 41. The Unit 3 combustion turbine is not a major source of hazardous air pollutants (HAP) and is not subject to any specific industry or HAP control requirements pursuant to Section 112 of the Clean Air Act, 42 U.S.C. s. 7401 et seq. <u>Id</u>. at 22.
- 42. The Unit 3 combustion turbine's air emissions are not expected to cause any adverse impacts on vegetation, soil or wildlife in the Cane Island Power Park vicinity or in the Chassahowitzka National Wilderness areas, the nearest PSD Class I area. Id. at 21.
- 43. A regional haze analysis was performed which shows that the Unit 3 combustion turbine will not result in adverse impacts on visibility in the vicinity of the Chassahowitzka National Wilderness area. <u>Id.</u> at 22.
- 44. Short-term increases in the labor force during the construction phase will not result in permanent or significant commercial and residential growth in the vicinity of the project. Any resulting air emissions from residual growth will be very small, well distributed and will have no significant impact on ambient air quality. <u>Id.</u>

BACT AND EMISSION RATES

45. A BACT analysis is intended to ensure that the air emission control systems selected for a new project reflect the latest in control technologies used in a particular industry based on a

considerations. BACT is a case-by-case analysis made by the permitting authority (DEP) during P.S.D. permitting. Section 403.509(3), Florida Statutes. A BACT review for the Unit 3 combustion turbine was conducted for PM/PM₁₀; CO; NO_X and VOC. (SCA, Appendix 10.7.)

- 46. The Department determined in the P.S.D. analysis that BACT for the Unit 3 combustion turbine particulate matter (PM/PM₁₀) emissions is use of natural gas as the primary fuel and low sulfur diesel fuel oil (distillate fuel oil) as a back-up fuel, good combustion practices and a 10% opacity limitation. This is the most stringent form of control technology available for the control of particulate matter emissions from combustion turbines. (DEP-Ex.2 at 33.)
- 47. The Department determined in the P.S.D. analysis that BACT for the Unit 3 combustion turbine for CO and VOC emissions consists of good combustion practices. The economic, energy and environmental impacts associated with use of an oxidation catalyst were too great to warrant its use based upon the BACT analysis, and upon recent BACT determinations by DEP for similar units. As such, the BACT emission limits for CO emissions are 20 and 30 parts per million (ppm) while firing natural gas and distillate fuel oil, respectively. The BACT emission limits for VOC emissions are 4 and 10 ppm while firing natural gas and distillate fuel oil, respectively. Id.
- 48. The Department determined in the P.S.D. analysis that BACT for the Unit 3 combustion turbine NOx emissions consists of dry, low NOx (DLN) burners and water injection during natural gas and distillate fuel oil firing, respectively. The environmental, economic and energy costs associated with use of a selective catalytic reduction (SCR) system analyzed in DEP's BACT review process did not warrant the use of the SCR post-combustion control device.

As such, the proposed emissions for NO_X are 9 and 42 ppm (dry at 15% oxygen) for natural gas and distillate fuel oil firing, respectively. Additionally, NO_X emission limits of 9.4 and 12 ppm apply during duct burner operation and intermittent simple cycle operation, respectively. <u>Id.</u>

49. No petition was filed under Section 403.508, Florida Statutes, challenging the Department's determination of BACT for P.S.D.; therefore, it is not at issue in this proceeding. Section 403.508(3), Florida Statutes.

INDUSTRIAL WASTEWATER

- 50. The Power Park has five major sources of wastewater. (SCA, Vol. 2 at 3-16.) These are sanitary wastewaters, oil/water separator effluent, cooling tower blowdown, chemical wastes and boiler blowdown. <u>Id.</u> Process wastewaters will be treated and discharged at three locations. <u>Id.</u> Oil/water separator effluent is, and will continue to be, routed to an onsite percolation pond prior to ground water discharge. <u>Id.</u> Cooling tower blowdown, neutralization basin effluent, and boiler blowdown will be combined and returned to the City of Kissimmee effluent pipeline for additional reuse or disposal at the Imperial Percolation Pond site. <u>Id.</u> Sanitary wastes will be routed to the existing onsite septic tank/tile field system. <u>Id.</u> There is no source of leachate associated with the existing Units 1 and 2, or proposed Unit 3 and, therefore, no basis for the leaching process to occur. <u>Id.</u>
- 51. It is estimated that 680,000 gpd of combined wastewater from cooling tower blowdown, neutralization basin effluent and boiler blowdown will be returned to the City of Kissimmee effluent pipeline during natural gas operation of all three Cane Island Power Park units at 100 percent load. <u>Id.</u> at 17.
- 52. The heat recovery steam generator and preboiler cycle piping will be chemically cleaned during commissioning and cleaned periodically during the life of the plant. <u>Id.</u> The

chemical boiler cleaning wastes resulting from this process will be immediately neutralized onsite, thereby avoiding their classification as hazardous wastes. <u>Id.</u> The treated cleaning wastes will be disposed of offsite by a licensed contractor. <u>Id.</u>

WASTE DISPOSAL

- 53. The Cane Island Power Park does not and will not generate any solid waste, such as combustion ash or flue gas desulfurization (FGD) scrubber waste, from the generation process. (SCA, Vol. 2 at 3-19.) The firing of natural gas or fuel oil does not create significant combustion byproducts of this nature. <u>Id.</u> Therefore, the Cane Island Power Park does not have, nor require, any landfills or solid waste disposal areas. Id.
- 54. Waste oil is the only potentially hazardous substance generated by Cane Island Power Park operation. <u>Id</u>. at 3-20. The following processes generate waste oil: combustion turbine cleaning, false starts of the combustion turbines and oil/water separator operation. <u>Id</u>. This waste oil is hauled offsite as needed by a licensed contractor for ultimate disposal. <u>Id</u>.

SURFACE WATER HYDROLOGY AND WATER QUALITY IMPACTS

- 55. The Cane Island Unit 3 project is designed to minimize impacts on surface and ground water resources. (DEP-Ex.2 at 50.) Unit 3 will use an off-stream, mechanical draft cooling tower with makeup water coming from the City of Kissimmee treated effluent pipeline. Id. Unit 3 will require an additional 2 million gallons of treated wastewater per day (2 MGD) for water lost due to evaporation and drift, and for blowdown. Id. Cooling tower blowdown will be discharged back to the City of Kissimmee effluent pipeline. Id.
- 56. Cane Island is crowned topographically in the central portion and drains to the east and to the west into Reedy Creek Swamp (SCA, Vol. 2 at 2-38). The elevation at the site is five (5) to fifteen (15) feet higher than that of the surrounding swamp. Id. The Bonnet Creek Canal is

located offsite, one-half mile west of the power block area at its nearest point. <u>Id</u>. at 4-3. Power Park operations do not withdraw or discharge to these waters; therefore, no impacts to these surface waters are expected as a result of Power Park operations. <u>Id</u>. at 5-26.

- 57. Construction of Unit 3 will have no significant impact on Reedy Creek, the Bonnet Creek Canal or the onsite wetlands. <u>Id.</u> at 4-3. The erosion and sedimentation control measures will control and minimize such impacts beyond the eight (8) acre construction zone. <u>Id.</u> at 4-3 and 4-4. The Unit 3 storm water pond and temporary drainage ditches will be developed early in the construction sequence to serve as the construction drainage system. <u>Id.</u>
- 58. Existing stormwater discharges of the Cane Island Power Park are fully permitted by .

 SFWMD and DEP and meet all applicable water quality requirements. (DEP-Ex.3 at 29.)

 GROUNDWATER HYDROLOGY AND IMPACTS FROM WATER WITHDRAWAL
- 59. During construction, dewatering will be necessary for construction of the new waste treatment facilities, including the neutralization basin and the new oil/water separator. (DEP-Ex.2 at 51.) Dewatering activity is expected to last no more than 120 days with total withdrawal of less than one (1) MGD. <u>Id.</u> Discharge from dewatering activities will be sent to the existing storm water pond now serving Units 1 and 2. <u>Id.</u> Most of the dewatering effluent is expected to percolate back into the surficial aquifer. <u>Id.</u> No adverse offsite effects are expected from dewatering activities. <u>Id.</u>
- 60. The Cane Island Power Park currently uses groundwater withdrawn from two (2), 200 gallon per minute (gpm) Floridan Aquifer wells pursuant to Permit No. 49-00671-W issued by the SFWMD. Units 1 and 2 currently use approximately 95,000 gallons per day of groundwater. <u>Id.</u> at 50. Unit 3 will require an additional 126,000 gpd of groundwater. <u>Id.</u> These

approximate water demands are based on the plant operating at 100% load conditions. <u>Id.</u> Actual average annual flows are normally less than this estimate. <u>Id.</u>

- 61. KUA has also requested authorization from the SFWMD for groundwater to be available for cooling tower makeup water during emergency conditions when the City of Kissimmee sewage treatment plants or treated effluent pipeline are not operating. <u>Id.</u>; SCA, Vol. 2 at 3-9. The maximum emergency cooling water makeup to be pumped from wells will be approximately three (3) MGD. <u>Id.</u>
- 62. Four (4) new 450 gpm wells will be needed to adequately supply the Power Park Units 1, 2, and 3 in an emergency situation. (DEP-Ex.2 at 50.) The proposed wells and predicted groundwater drawdown by the Power Park wells will not adversely affect existing domestic, irrigation or other public water supply wells due to Floridan Aquifer ground water withdrawals on the site. The nearest offsite wells are located 3.5 miles from the site. Id. No withdrawals of surficial aquifer groundwater are made during operation. Id. at 51. Power Park impacts on the surficial aquifer during operation are therefore insignificant. Id.

ECOLOGICAL RESOURCES

- 63. The Cane Island Power Park currently includes approximately 15 acres of land that is developed (including mowed areas) and under regular maintenance. (SCA, Vol. 2 at 4-1). Approximately 876.1 acres at the Power Park are dedicated as a conservation area and are relatively undisturbed, consisting of upland and wetland components. (DEP-Ex.2 at 12.)
- 64. Unit 3 will be constructed primarily on a portion of the site that has already been disturbed by earlier development. (DEP Ex.2 at 8.) A total of up to approximately eight (8) acres will be affected by Unit 3 construction. (SCA, Vol.2 at 4-1.) Construction of Unit 3 will have no significant impact on Reedy Creek, the Bonnet Creek Canal or the onsite wetlands. (SCA, Vol.2

- at 4-3.) The Unit 3 project would necessitate clearing five (5) acres of grassland and sand pine scrub vegetation. (SCA, Vol.2 at 4-1.)
- 65. The proposed new transmission line will connect the Cane Island Power Park with the Florida Power Corporation's Intercession City Plant. (SCA, Vol. 2 at 6-1.) Vegetation in the existing transmission line corridor on Power Park property is maintained essentially as a lawn. (SCA, Vol. 2 at 6-13.) The new construction corridor passes through pine-mesic oak, mixed hardwood swamp, old agricultural field, cypress strand and hydric hammock plant communities. Id. The surface water bodies that are crossed by the corridor are limited to Reedy Creek and its associated wetlands. Id. at 6-16. The anticipated impacts on these waterbodies were minimized to the extent practicable by the siting of the corridor. Id. at 6-21. The line will span Reedy Creek, thereby avoiding direct impacts to it. Id. The proposed linear facilities will, however, have some impact on wetland areas in the new utility corridor. Id. Approximately 14.7 acres of jurisdictional wetlands will be impacted. Id. at 6-22. An Environmental Resource Permit application has been submitted to the U.S. Army Corps of Engineers (USACOE) and the SFWMD for construction of the transmission line. Id. Water management district staff have determined that mitigation for such impacts consists of using 8.05 of the applicant's mitigation units established under SFWMD Permit No. 49-00672-S. (DEP-Ex.3 at 50.)
- 66. The Cane Island Power Park will not discharge effluent from the site into surface waters; no impacts to aquatic life from such discharge are therefore expected. (SCA, Vol. 2 at 5-1.)
- 67. A review of potential impacts to threatened and endangered species was conducted based on habitat types that occur at the Cane Island Power Park. Lists of threatened and endangered species obtained from the U.S. Fish and Wildlife Service and from the Florida Game

and Fresh Water Fish Commission ("FGFWFC) were reviewed and field surveys were conducted. (SCA, Vol. 2 at 2-43). No federally-listed plant or animal species designated as threatened or endangered were found at the site. Id. at 2-44. Marginal habitat for the Florida scrub jay (federally threatened) was discovered on the northern half of Cane Island, but no scrub jays were observed on-site during field surveys. Id. According to these agencies, habitat suitable for several state-listed species occur either on Cane Island or in habitats directly adjacent to Cane Island on Power Park property. Id. Only two state-listed animal species, however, have been found onsite. The gopher tortoise (Gopherus polyphemus), a state species of special concern; and, the Florida mouse (Podomys floridanus), a state species of special concern were observed on the site. Id. Six state protected plants were located onsite, but are not found in the impact areas. Id.

68. Site preparation will permanently impact wildlife habitat. <u>Id</u>. at 5-53. All vegetation will be permanently removed from the five acre Unit 3 power block area. <u>Id</u>. As a result, there will be a decrease of wildlife habitat and wildlife will be displaced from the impact areas. <u>Id</u>. However, the FGFWFC determined that facility certification would not cause any significant impacts to fish and wildlife resources under their jurisdiction. (DEP-Ex. 2, at 7.) In addition, the FGFWFC issued Permit No. OSC-6 for the incidental take of gopher tortoises and their burrows during Unit 1 and 2 construction. This permit is still in effect for construction of Unit 3. <u>Id</u>. at 4-5.

IMPACTS FROM FLOODING AND HURRICANES

69. Pursuant to applicable requirements of the SFWMD, the site access road is located two (2) feet above the ten (10) year, 24 hour storm elevation, which is 69 feet NGVD (National Geodetic Vertical Datum). (SCA, Vol. 2 at 2-6.) The access road centerline is at 71 feet NGVD.

Id. Roads in the power block area are located 4.5 feet above the ten (10) year, 24 hour storm elevation which is 76.25 feet NGVD. Id. Road crown elevations on Cane Island are and will continue to be at 80.75 feet NGVD. The SFWMD also required that the finished floor elevations in the power block area be located at least 3.8 feet above the 100 year, 72 hour storm elevation. Id. The finished floor elevations are and will be at 81.75 feet NGVD. Id.

NOISE IMPACTS

70. Noise emissions attributable to construction activities are highly variable, depending upon the location and operating load of the construction equipment. (SCA, Vol. 2 at 4-19.) Noise emissions during site clearing and preparation will be dominated by diesel engine noise. Id. Equipment installation noise emissions are expected to be less than during other phases of construction. Id. Site clearing and facility startup will generally result in minimal noise emissions. Id. at 4-20. The one significant noise emission associated with facility startup will be steam blowout of the heat recovery steam generator (HRSG) and steam lines. Construction activities will be scheduled during daytime and early evening periods to the fullest extent possible. Id. Any nighttime construction will be limited to low noise activities as much as possible. Id.

71. Noise emissions are regulated under Article IV, Section 9-110 of the Osceola County Code. <u>Id</u>. at 5-51. The predicted A-weighted noise emissions will satisfy the code criteria at the nearest residential locations. <u>Id</u>. at 5-53. However, the criteria will be exceeded at certain property boundary locations. <u>Id</u>. All locations in excess of the criteria are within areas where forested wetlands preclude the possibility of development. <u>Id</u>.

TRAFFIC

- 72. All roadways serving the construction and operational traffic of Cane Island Power Park have adequate capacity to handle the increase in traffic generated by construction and operation of Unit 3. (SCA, Vol. 2 at 4-27.) No section of roadway will be impacted adversely. Id. at 4-27. No significant impacts on traffic in the Intercession City area are expected. Most employees are expected to use US Highway 17/92 until they are within one (1) mile of the site entrance off Old Tampa Highway. No new offsite roads or road improvements will be required as a result of the construction and operation of Unit 3. Id. at 5-54.
- 73. Traffic control will be maintained during plant construction in compliance with the standards contained in the Manual of Uniform Traffic Control Devices, Chapter 14-94, Florida Administrative Code; Florida Department of Transportation's Design Standards; and the Florida Department of Transportation's Specifications for Roads and Bridges, whichever is most stringent. (DEP-Ex.3 at 51.)

CONSISTENCY WITH THE STATE COMPREHENSIVE PLAN

74. Cane Island Power Park Units 1-3, once certified, will be affirmatively consistent with all of the applicable subjects, goals, and expressed policies of the State Comprehensive Plan, Chapter 187, Florida Statutes, and will also implement applicable agency strategic policy plans. (Joint Stipulation at 5.)

SOLID WASTE

75. Solid waste collection and disposal services at the Power Park are handled by a private contractor. (DEP-Ex.2 at 10.)

PUBLIC SERVICES

76. Other public services such as police, fire, and emergency medical services are available and sufficient to meet the needs of the Power Park. (Grotts prefiled test. at 7.)

VARIANCES

77. Osceola County will require no variances for operation of the Cane Island Power Park including the construction or operation of Unit 3 and its associated facilities. (DEP-Ex.2 at 53.)

AGENCY POSITIONS AND STIPULATIONS

- 78. The DEP, Department of Transportation ("DOT"), Department of Community Affairs ("DCA"), and the SFWMD have recommended certification of the existing Units 1 and 2 and the proposed Unit 3 project, including construction and operation of Unit 3 and its associated facilities, subject to recommended Conditions of Certification. (DEP-Ex.2 at 5-7.) Those recommended Conditions of Certification are attached hereto and incorporated by reference herein as Appendix One.
- 79. The FGFWFC determined that Unit 3 will have no significant impact to fish and wildlife resources under its jurisdiction. <u>Id.</u> at 7. The East Central Florida Regional Planning Council ("ECFRPC") determined that use of the site for this industrial use is consistent with the Osceola County future land use plan. <u>Id.</u> at 5. No state, regional or local agency has recommended denial of certification. <u>Id.</u> at 4-7. Osceola County neither requested nor recommended any Conditions of Certification before or during the certification hearing. <u>Id.</u>

CONCLUSIONS OF LAW

80. The Division of Administrative Hearings has jurisdiction over the parties to, and the subject matter of, this proceeding. The proceeding was conducted in accordance with

Chapter 403.501-518, Part II, Florida Statutes, the "Florida Electrical Power Plant Siting Act," and Chapter 62-17, F.A.C.

- 81. In accordance with Chapters 120 and 403, Florida Statutes, and Chapter 62-17, Florida Administrative Code, proper notice was accorded all persons, entities and parties entitled thereto, as well as notice being provided to the general public. All necessary and required governmental agencies participated in the certification process. Reports and studies were issued by the DEP, the DCA, the DOT, the SFWMD, the ECFRPC, the Environmental Protection Agency, the FGFWFC, and the DOS DHR, in accordance with their various statutory charges.
- 82. The PSC has certified the need for the electrical generating capacity, nominally 250 MW, to be supplied by Unit 3 as required by Sections 403.508 and 403.519, Florida Statutes.
- 83. The Governor and Cabinet sitting as the Siting Board have determined that the Cane Island Power Park, including the proposed Unit 3 project, is consistent and in compliance with the existing land use plan and zoning ordinances of Osceola County as required by Sections 403.5175(3) and 403.508(2), Florida Statutes.
- 84. Pursuant to Section 403.508(3), Florida Statutes, the Department's determination of BACT for P.S.D. is not at issue in this proceeding.
- 85. Preponderant evidence produced by the KUA and FMPA, in its Site Certification Application, at the certification hearing, in its pre-filed testimony, in the Joint Stipulation Between the Parties, demonstrates that the Applicant has met its burden of proving that the Cane Island Power Park, including proposed Unit 3 and its associated facilities, is entitled to certification as described more particularly below.

- 86. Preponderant evidence produced in its Site Certification Application, in its pre-filed testimony, in the Joint Stipulation Between the Parties and at hearing demonstrates that the construction and operational safeguards for the Power Park are technically sufficient for the welfare and protection of citizens, and are reasonable and available methods to achieve that protection. The Cane Island Power Park including the new Unit 3 and associated facilities, if constructed, maintained and operated in accordance with the conditions and parameters recommended and found herein and in the attached Conditions of Certification, will result in minimal environmental impacts compared to the benefits of the Cane Island Power Park. Such measures will minimize adverse effects on human health, the environment, the ecology of the land and its wildlife, and the ecology of state waters and their aquatic wildlife through the use of reasonable and available methods. Certification of existing Units 1 and 2 and the construction and operation of Unit 3 is consistent with the goal of abundant, low cost energy and will effect a reasonable balance between minimal environmental impacts and an already determined need for Unit 3 at the Cane Island Power Park.
- 87. The Cane Island Power Park, including proposed Unit 3 and its associated facilities, if constructed and operated in accordance with the findings and conclusions herein and in the attached recommended Conditions of Certification, will be consistent and in compliance with the State Comprehensive Plan and the Osceola County Comprehensive Plan.
- 88. The Cane Island Power Park, including proposed Unit 3 and associated facilities, if constructed and operated in accordance with the findings and conclusions herein and in the attached recommended Conditions of Certification, will comply with the applicable, non-procedural requirements of all agencies, including the land development codes of Osceola County, the local government with jurisdiction, pursuant to the Order of the Siting Board.

Certification of the Cane Island Power Park including Unit 3 and its associated facilities will serve and protect the broad interests of the public.

RECOMMENDATION

Having considered the foregoing findings of fact, conclusions of law, the evidence of record and the Joint Stipulation Between the Parties, it is, therefore,

RECOMMENDED: That the Kissimmee Utility Authority and Florida Municipal Power Agency be granted certification, pursuant to Chapter 403, Part II, Florida Statutes, for the operation of the existing Cane Island Power Park, and including the location, construction, and operation of proposed Unit 3 and its associated facilities, as described in the Site Certification Application and as modified by the preponderant evidence of record supportive of the above findings of fact and conclusions of law, and in accordance with the attached Conditions of Certification which are incorporated herein and made a part hereof by reference.

DONE AND ENTERED this	day of	, 1999, in Tallahassee,
Leon County, Florida.		

DANIEL MANRY
Administrative Law Judge
Division of Administrative Hearings
The DeSoto Building
1230 Apalachee Parkway
Tallahassee, Florida 32399-3060
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Filed with the Clerk of the
Division of Administrative Hearings
this ______, 1999.

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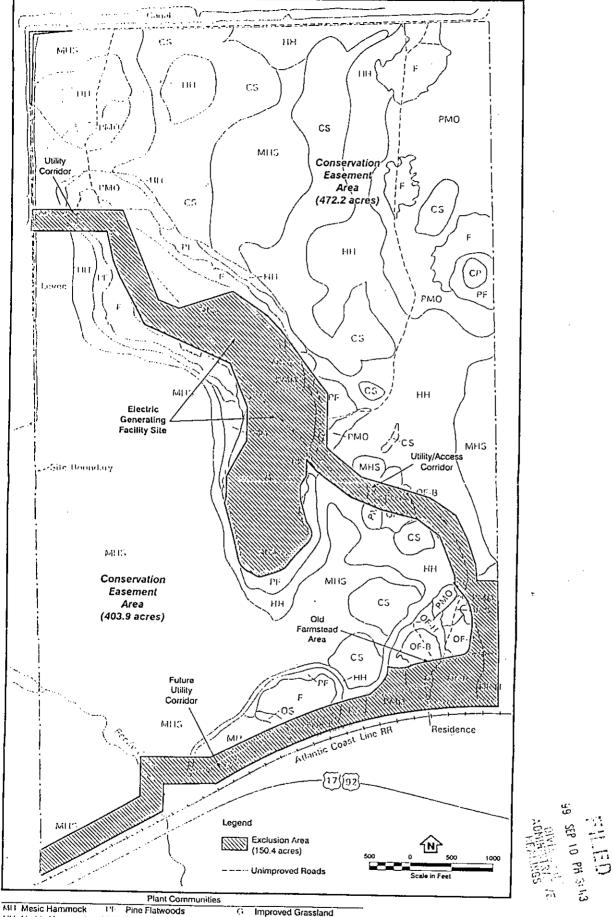
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NOTICE OF RIGHT TO SUBMIT EXCEPTIONS

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.

Word-rec-order

" 1 3 Y 1



Hydric Hammock
CS Cypress Strand
CP Cypress Pond
Flatwoods

Pine Mesic Oak

MIC: Mixed Hardwood Swamp

OF-1) Old Field – Broomsedge OF-1) Old Field – Mixed Hardwood OF-1) Old Field – Saw Palmetlo OS Oak Scrub
SPS Sand Pine Scrub OF-S Old Field - Slash Pine

EXHIBIT "B"

November 1996

RECEIVED

STATE OF FLORIDA SITING BOARD

NOV 24 1999

BUREAU OF AIR REGULATION

IN RE: KISSIMMEE UTILITY AUTHORITY)	
and FLORIDA MUNICIPAL POWER)	
AGENCY (CANE ISLAND POWER PARK),)	DOAH CASE NO. 98-3619EPP
POWER PLANT SITING)	
APPLICATION PA 98-38,)	
	_/	

FINAL ORDER APPROVING CERTIFICATION

On September 23, 1999, an Administrative Law Judge ("ALJ") with the Division of Administrative Hearings ("DOAH") submitted an Order of Adoption in this proceeding. This Order of Adoption adopts, in its entirety, the "Jointly Filed Proposed Corrected Recommended Order" filed by counsel for the Kissimmee Utility Authority ("KUA") and counsel for the Department of Environmental Protection ("DEP") with DOAH on September 10, 1999. The Order of Adoption indicates that copies were served upon counsels for DEP, KUA, the Florida Municipal Power Agency ("FMPA"), the County Manager of Osceola County ("the County"), and upon counsels or representatives of other designated governmental entities. A copy of the Order of Adoption with the Jointly Filed Proposed Corrected Recommended Order is attached as Composite Exhibit A. The matter is now before the Governor and Cabinet, sitting as the Siting Board, for final agency action under the Florida Electrical Power Plant Siting Act (hereafter "PPSA") embodied in §§ 403.501-403.518, Florida Statutes.

BACKGROUND

KUA is an independent authority engaged in the generation and distribution of electrical power to persons within its service area. FMPA is a joint agency formed pursuant to the Florida Interlocal Cooperation Act of 1969, Section 163.01, Florida Statutes, and exercises powers under the Joint Power Act, Chapter 361, Part II, Florida Statutes. KUA and FMPA each have a fifty (50) percent joint ownership of the existing Cane Island Units 1 and 2 and the proposed Cane Island Unit 3 and associated facilities. KUA/FMPA have requested certification under the PPSA of Cane Island Units 1-3 and the Cane Island-Intercession City transmission line proposed corridor ("the Project"). The Project site is in the Cane Island

On January 25, 1993, KUA was granted a Conditional Use/Site Development Plan Permit (CU/SDP 92-86) by the Board of County Commissioners for development of the Power Park as a combustion turbine power plant facility. Approximately 150.4 acres of the Power Park have been permitted for power development and support facilities. Cane Island Units 1 and 2 began commercial operation in 1995, along with the Clay Street Transmission Line, the Bonnet Creek Canal Transmission Line, and the natural gas pipeline. The two transmission lines and the natural gas pipeline were not required to be certified under the PPSA, since these units were below 75 megawatts of steam generation. See § 403.503(12), Florida Statutes. Cane Island Units 1 and 2, the two transmission lines, the natural gas pipeline, and the Power Park were permitted with each individual agency involved.

The proposed on-site facilities of Cane Island Unit 3 consist of a new combined cycle electric generating unit which includes one combustion turbine, a heat recovery steam generator, and a steam turbine generator. The approximate 100 megawatt steam generating capacity of Unit 3 requires this unit to be certified under the PPSA. KUA/FMPA elected to include Units 1 and 2 in the certification request to incorporate all permit conditions into one site-specific set of conditions. The Florida Public Service Commission issued a determination of need for Unit 3 on October 7, 1998 (Order No. PSC-98-1301-FOF-EN).

PPSA PROCEEDINGS

A PPSA land use hearing was conducted by the ALJ on November 17, 1998, as required by § 403.508(1), Florida Statutes. On December 8, 1998, the ALJ entered an Order of Adoption finding and concluding that the subject site at the Power Park is consistent and in compliance with the County's existing land use plans and zoning ordinances. On March 9, 1999, the Siting Board entered an Order adopting the ALJ's Order of Adoption and determining that the proposed site is consistent and in compliance with the existing land use plans and zoning ordinances of the County.

A PPSA site certification hearing was conducted by the ALJ on June 1, 1999, pursuant to § 403.508(3), Florida Statutes. This site certification hearing was conducted for the purpose of receiving evidence concerning the issue of whether the Project complies with the

evidence included a Joint Stipulation Between the Parties and Conditions of Certification as revised on May 18, 1999. The record reflects that no other agencies or persons appeared at this hearing.

On September 10, 1999, KUA/FMPA and DEP jointly filed with DOAH a Proposed Corrected Recommended Order which was subsequently adopted by the ALJ on September 23, 1999. The ALJ concluded in the Order of Adoption that KUA/FMPA had demonstrated that the Project will minimize adverse effects on human health, the environment, the ecology of the land and its wildlife, and the ecology of state waters and their aquatic wildlife through the use of reasonable and available methods. The ALJ further concluded that the Project will comply with applicable nonprocedural requirements of all agencies, result in minimal environmental impacts compared to its benefits, and will "serve and protect the broad interests of the public." The ALJ thus recommended that the Siting Board grant certification of the Project pursuant to the PPSA, subject to DEP's Conditions of Certification.

CONCLUSIONS

No Exceptions have been filed with the Siting Board challenging any of the factual findings, legal conclusions, or recommendation set forth in the ALJ's Order of Adoption now on review. Furthermore, the record before the Siting Board does not contain any recommendations of denial of site certification of this Project by any state, regional, or local agency. Having reviewed the Order of Adoption and other matters of record and being otherwise duly advised, it is ORDERED that:

- A. The ALJ's Order of Adoption dated September 23, 1999, is hereby ADOPTED in its entirety and incorporated herein by reference.
- B. Certification of the location, construction, and operation of the Project as proposed in KUA/FMPA's site certification application, is APPROVED, subject to the Revised Conditions of Certification admitted into evidence at the site certification hearing as DEP's Exhibit 3 and adopted by reference by the ALJ's Order of Adoption dated September 23, 1999.
 - C. Authority to assure and enforce compliance by KUA/FMPA and their agents with

D. Pursuant to subsection 403.516(1), F.S., the Siting Board hereby delegates the authority to the Secretary to modify any condition of this certification, except that any proposed modification to burn a fuel other than natural gas or oil shall be reviewed by the Board.

Any party to this certification proceeding has the right to seek judicial review of this Final Order pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department of Environmental Protection, Office of General Counsel, 3900 Commonwealth Boulevard, M.S. 35, Tallahassee, Florida 32399-3000; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date this Final Order is filed with the Clerk of the Department.

DONE AND ORDERED this 22nd day of November 1999, in Tallahassee, Florida, pursuant to a vote of the Governor and Cabinet, sitting as the Siting Board, at a duly noticed and constituted Cabinet meeting held on November 9, 1999.

THE GOVERNOR AND CABINET SITTING AS THE SITING BOARD

TAE HONORABLE JEB BUSH

GOVERNOR

KATHERINE HARRIS

SECRETARY OF STATE

BOB BUTTERWORTH ATTORNEY GENERAL

South m'

TREASURER

BOB CRAWFORD

COMMISSIONER OF AGRICULTURE

TOM GALLAGNER COMMISSIONER OF EDUCATION

Filing Is Acknowledged On This Date,
Pursuant To \$120.52, Florida Statutes,
With The Designated Department Clerk,
Receipt Of Which is Hereby Acknowledged.

CLERK

DATE

CERTIFICATE OF SERVICE

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

Ben Sharma, Professional Engineer Kissimmee Utility Authority Post Office Box 423219 Kissimmee, FL 34742-3219

Claude L'Engle Florida Municipal Power Agency 7201 Lake Ellenor Drive Orlando, FL 32809

Ken van Assenderp, Esquire Tasha Buford, Esquire Young, van Assenderp and Varnadoe, P.A. 225 South Adams Street, Suite 200 Post Office Box 1833 Tallahassee, FL 32303-1833

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Daniel Manry, Administrative Law Judge
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and by hand delivery to:

Hamilton Oven, Administrator Department of Environmental Protection Office of Siting Coordination 2600 Blair Stone Road Mail Station 48 Tallahassee, FL 32399-2400

and

Scott A. Goorland, Esquire
Department of Environmental Protection
3900 Commonwealth Blvd., M.S. 35
Tallahassee, FL 32399-3000

this / day of

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

J. TERRELL WILLIAMS
Assistant General Counsel

3900 Commonwealth Blvd., M.S. 35 Tallahassee, FL 32399-3000 Telephone 850/488-9314

APPENDIX ONE CONDITIONS OF CERTIFICATION

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION Kissimmee Utility Authority/Florida Municipal Power Agency CANE ISLAND POWER PARK PA 98-38

CONDITIONS OF CERTIFICATION

1. GENERAL

The following general and specific conditions shall apply to the construction and operation of the Cane Island Power Park. Prior to the completion of Cane Island Unit 3, the Cane Island Power Park may operate in accordance with existing permits. Within 90 days of the commencement of commercial operation on Unit 3, the Kissimmee Utility Authority (KUA) shall surrender any existing non-federal state operating permits for Units I and 2 at the Cane Island Power Park.

A. Definitions

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

- 1. "Application" shall mean the Site Certification Application (SCA) for the Cane Island Units 1-3, as supplemented.
 - 2. "DEP" or Department shall mean the Florida Department of Environmental Protection.
 - 3. "DHR" shall mean the Florida Department of State, Division of Historical Resources.
- 4. "Emergency conditions" shall mean urgent circumstances involving potential adverse consequences to human life or property as a result of weather conditions or other calamity, and necessitating new or replacement gas pipeline, transmission lines, or access facilities.
- 5. "Feasible" or "practicable" shall mean reasonably achievable considering a balance of land use impacts, environmental impacts, engineering constraints, and costs.
 - 6. "GFWFC" shall mean the Florida Game and Fresh Water Fish Commission.
 - 7. "Permittee" shall mean the Kissimmee Utility Authority (KUA) and Florida Municipal Power Agency (FMPA).
 - 8. "Power plant" shall mean the electric power generating plant and appurtenances to be modified or constructed on the Cane Island Power Park site in Osceola County, as generally depicted in the Application.

- 9. "Project" shall mean the Cane Island Unit 3 and all associated facilities, including but not limited to: the combined cycle unit, fuel and water storage tanks, natural gas delivery pipes, effluent pumping station, air pollution control equipment, storm water control facilities, the cooling tower and related facilities.
 - 10. "SFWMD" shall mean the South Florida Water Management District.
- 11. "ROW" shall mean the transmission line right-of-way to be selected within the certified corridor in accordance with the conditions of certification.

B. Applicable Rules

The construction and operation of the Cane Island Power Park shall be in accordance with all applicable provisions of at least the following regulations of DEP: Chapters 62-4, 6217, 62-814, 62-256, 62-296, 62-297, 62-301, 62-302, 62-531, 62-532, 62-550, 62-555, 62-560, 62-600, 62-601, 62-604, 62-610, 62-620, 62-621, 62-650, 62-699, 62-660, 62-701, 62-762, 62767, 62-769, 62-770, and 62-814, Florida Administrative Code (F.A.C.), or their successors as they are renumbered.

II. CHANGE IN DISCHARGE

All discharges or emissions authorized herein shall be consistent with the terms and conditions of this certification. The discharge of any regulated pollutant not identified in the application, or more frequent than, or at a level in excess of that authorized herein, shall constitute a violation of the certification. Any anticipated facility expansions beyond the certified led initial generating capacities of the existing units or Unit 3, production increases, or process modifications which may result in new, different, or increased discharges of pollutants, or expansion in steam generation capacity shall be reported by submission of an application for modification pursuant to Chapter 403, F.S.

III. GENERAL CONDITIONS

A. Facilities Operation

- 1. The KUA shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the KUA to achieve compliance with the conditions of this certification, and are required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the approval and when required by Department rules.
- 2. In the event of a prolonged [thirty (30) days or more] equipment malfunction or shutdown of air pollution control equipment, operation may be allowed to resume and continue to take place under an appropriate Department order, provided that the Permittee demonstrates that such operation will be in compliance with all applicable ambient air quality standards and PSD increments, solid waste rules, domestic wastewater rules and industrial wastewater rules. During such malfunction or shutdown, the operation of the Cane Island Power Park shall comply with all other requirements of this certification and all applicable state and federal emission and effluent standards not affected by the malfunction or shutdown which is the subject of the Department's order.
- 3. The KUA shall comply with the terms and conditions contained in Permit No. PSD-FL-254/PA98-38 and any revisions, modifications or reissuances thereof

B. Non-Compliance Notification

If, for any reason, the permittee (defined as the applicant or its successors and/or assigns) does not comply with or will be unable to comply with any limitation specified in this certification, the permittee shall notify the Central District office of the DEP by telephone at (407) 894-7555. After normal business hours, reports of any condition that poses a public health threat shall be made to the State Warning Point at telephone number (850)413-9911 or (850)413-9912. The KUA shall confirm this non-compliance in writing at 3319 Maguire Boulevard, Suite 232, Orlando, Florida 32803-3767 within seventy-two (72) hours of becoming aware of such conditions, and shall supply the following information:

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

C. Spill Notification

The KUA shall report all critical (having potential to significantly pollute surface or ground waters) spills of liquid or liquid-solid materials, not confined to a building or similar containment structure, to the Department by telephone immediately after discovery and submit a written report within forty-eight hours, excluding weekends, from the original notification. The telephonic report shall be submitted by calling the Central District Industrial Wastewater Compliance/Enforcement Section under telephone number (407)893-3308. After normal business hours, contact the State Warning Point by calling (850)413-9911 or (850)413-9912. The written report shall include, but not be limited to, a detailed description of how the spill occurred, the name and chemical make-up (include any MSDS sheets) of the substance, the amount spilled, the time and date of the spill, the name and title of the person who first reported the spill, the area] size of the spill and surface types (impervious, ground, water bodies, etc.) it impacted, the cleanup procedures used and status of completion, and include a map or aerial photograph showing the extent and paths of the material flow. Any deviation from this requirement must receive prior approval from the Department.

D. Safety

- 1. The overall design, layout, and operation of the facilities shall be such as to minimize hazards to humans and the environment. Security control measures shall be utilized to prevent exposure of the public to hazardous conditions. The Federal Occupational Safety and Health Standards will be complied with during construction. The Safety Standards specified under Section 442.20, F.S., by the Division of Safety of the Florida Department of Labor and Employment Security shall also be complied with.
- 2. The Permittee shall not discharge to surface waters wastes which are acutely toxic, or present in concentrations which are carcinogenic, mutagenic, or teratogenic to human beings or to significant locally occurring wildlife or aquatic species. The Permittee shall not discharge to ground waters wastes in concentrations which, alone or in combination with other substances, or components of discharges (whether thermal or non-thermal) are carcinogenic, mutagenic, teratogenic, or toxic to human beings (unless specific criteria are established for such components in Section 62-520.420, F.A.C.) or are acutely toxic to indigenous species of significance to the aquatic community within surface waters affected by the ground water at the point of contact with surface waters.

E. Enforcement

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

F. Design and Performance Criteria

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

G. Certification - General Conditions

- I. The terms, conditions, requirements, limitations and restrictions set forth in these conditions of certification are the same as "Permit Conditions" and are binding and enforceable pursuant to Sections 403.141, 403.161, 403.514, 403.727, and 403.859 through 403.86 1, F.S. Any noncompliance with a condition of certification or condition of a federally delegated or approved permit constitutes a violation of chapter 403, F.S., and is grounds for enforcement action, permit termination, permit revocation and reissuance, or permit revision. The KUA/FMPA is placed on notice that the Department will review this approval periodically and may initiate enforcement action for any violation of these conditions.
- 2. This approval is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this approval may constitute grounds for revocation and enforcement action by the Department.
- 3. As provided in Subsections 403.087(6), 403.511, and 403.722(5), F.S., the issuance of this approval does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations. This approval is not a waiver of or approval of any other Department approval that may be required for other aspects of the total project under federally delegated programs which are not addressed in this certification.
- 4. This certification does not relieve the KUA/FMPA from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this approved source, or from penalties therefore; nor does it allow the KUA to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department. The permittees shall take all reasonable steps to minimize or prevent any discharge, reuse of reclaimed water, or residuals use or disposal in violation of these Conditions which has a reasonable likelihood of adversely affecting human health or the environment. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with these Conditions

- In accepting this certification, the KUA understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this approved source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the approved source arising under the Florida Statutes or Department rules, except where such use is proscribed by Sections 403.111 and 403.73, F.S., or Rule 62-620.302, Florida Administrative Code. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.
- 6. This certification is transferable only upon Department approval in accordance with Section 403.516, F.S., Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The KUA shall be liable for any noncompliance of the approved activity until the transfer is approved by the Department.
- 7. These conditions of certification or a copy thereof shall be kept at the work site of the approved activity.
 - 8. The KUA shall comply with the following:
- a. Upon request, the KUA shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
- b. The KUA shall hold at the facility or other location designated by this approval records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the approval, copies of all reports required by this approval, and records of all data used to complete the application for this approval. These materials shall be retained at least three (3) years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule. Data utilized to prepare the application may be maintained at the following locations:

KUA Cane Island Power Park: 6075 Old Tampa Highway Intercession City, Florida KUA Electric Operations: 1701 West Carroll Street* Kissimmee, Florida 34741

*or subsequent principle office location.

- C. Records of monitoring, information shall include:
 - (1) the date, exact place, and time of sampling or measurements;
 - (2) the person responsible for performing the sampling or measurements;
 - (3) the dates analyses were performed;
 - (4) the person responsible for performing the analyses;

- (5) the analytical techniques or methods used;
- (6) the results of such analyses.
- 9. These Conditions may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit revision, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.
- The permittee, by accepting these Conditions, specifically agrees to allow authorized Department personnel, including an authorized representative of the Department and authorized EPA personnel, when applicable, upon presentation of credentials or other documents as may be required by law, and at reasonable times, depending upon the nature of the concern being investigated, to
- a. Enter upon the permittee's premises where a regulated facility, system, or activity is located or conducted, or where records shall be kept under these Conditions;
- b. Have access to and copy any records that shall be kept under the conditions of these Conditions;
- c. Inspect the facilities, equipment, practices, or operations regulated or required under these Conditions; and
- d. Sample or monitor any substances or parameters at any location necessary to assure compliance with these Conditions or Department rules.
- 11. When requested by the Department, the permittee shall within a reasonable time provide any information required by law which is needed to determine whether there is cause for revising, revoking and reissuing, or terminating these Conditions, or to determine compliance with the permit. The permittee shall also provide to the Department upon request copies of records required by these Conditions to be kept. If the permittee becomes aware of relevant facts that were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be promptly submitted or corrections promptly reported to the Department.
- Unless specifically stated otherwise in Department rules, the permittee, in accepting these Conditions, agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules. A reasonable time for compliance with a new or amended surface water quality standard, other than those standards addressed in Rule 62-302.500, F.A.C., shall include a reasonable time to obtain or be denied a mixing zone for the new or amended standard.
- 13. The permittee, in accepting these Conditions, agrees to pay the applicable regulatory program and surveillance fee in accordance with Rule 62-4.052, F.A.C.
- 14. The permittee shall give the Department written notice at least 60 days before inactivation or abandonment of a wastewater facility and shall specify what steps will be taken to safeguard public health and safety during and following inactivation or abandonment.

- 15. The permittee shall apply for a revision to any Department issued PSD, Title V, or NPDES permit in accordance with Department Rules in Chapter 62, Florida Administrative Code, at least 90 days before construction of any planned substantial modifications to the permitted facility is to commence or with applicable rules for minor modifications to the permitted facility. A revised permit shall be obtained before construction begins except as provided in the applicable portions of Chapter 62, F.A.C.
- The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. The permittee shall be responsible for any and all damages which may result from the changes and may be subject to enforcement action by the Department for penalties or revocation of these Conditions. The notice shall include the following information:
 - a. A description of the anticipated noncompliance;
 - b. The period of the anticipated noncompliance, including dates and times; and
 - c. Steps being taken to prevent future occurrence of the noncompliance.
- 17. Water quality sampling and monitoring data shall be collected and analyzed in accordance with Rule 62-4.246, Chapters 62-160 and 62-601, F.A.C., and 40 CFR 136, as appropriate.
 - a. Monitoring results shall be reported at the intervals specified elsewhere in these Conditions and shall be reported on a Discharge Monitoring Report (DMR), DEP Form 62-620.910(10).
 - b. If the permittee monitors any contaminant more frequently than required by the permit, using Department approved test procedures, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR.
 - c. Calculations for all limitations which require averaging of measurements shall use an arithmetic mean unless otherwise specified in these Conditions.
 - d. Under Chapter 62-160, F.A.C., sample collection shall be performed by following the protocols outlined in "DER Standard Operating Procedures for Laboratory Operations and Sample Collection Activities" (DEP-QA-001/92). Alternatively, sample collection may be performed by an organization who has an approved Comprehensive Quality Assurance Plan (CompQAP) on file with the Department. This CompQAP shall be approved for collection of samples from the required matrices and for the required tests.
 - 18. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule detailed elsewhere in these Conditions shall be submitted no later than 14 days following each schedule date.

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

H. Laboratories and Quality Assurance

- 1. The Permittee shall ensure that all laboratory analytical data submitted to the Department, as required by this certification, must be from a laboratory which has a currently valid and Department approved Comprehensive Quality Assurance Plan (CompQAP) [or a CompQAP pending approval] for all parameters being reported, as required by Chapter 62-160, F.A.C.
- When a contract laboratory is used to analyze samples required pursuant to this certification, the Permittee is required to have the samples taken by qualified personnel following EPA and Department approved sampling procedures and chain-of-custody requirements in accordance with Rule 62-160, F.A.C.
- 3. When an in-house laboratory is used to analyze samples required pursuant to this permit, the Permittee is required to have the samples taken by a qualified technician following EPA and Department approved sampling procedures and chain-of-custody requirements. All chain-of-custody records must be retained on-site for at least three (3) years and made available to the Department immediately upon request.

1. Procedures for Post-Certification Submittals

I. Purpose of Submittals

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

2. Filings

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

3. Completeness

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

4. Interagency Meetings

Within sixty (60) days of the filing of a complete post-certification submittal, DEP may conduct an interagency meeting with other agencies which received copies of the submittal. The purpose of such an interagency meeting shall be for the agencies with regulatory jurisdiction over the matters addressed in the post-certification submittal to discuss whether reasonable assurance of compliance with the conditions of certification has been provided. Failure of any agency to attend an interagency meeting shall not be grounds for

DEP to withhold a determination of compliance with these conditions nor to delay the time frames for review established by these conditions.

5. Reasonable Assurance of Compliance

Within ninety (90) days of the filing of a complete post-certification submittal, or 45 days after a submittal is made by the applicant, or unless another date is specified herein, DEP shall give written notification to the KUA and the agencies to which the post-certification information was submitted of its determination whether there is reasonable assurance of compliance with the conditions of certification. If it is determined that reasonable assurance has not been provided, The KUA shall be notified with particularity and possible corrective measures suggested. Failure to notify The KUA in writing within ninety (90) days of receipt of a complete post-certification submittal shall constitute a compliance determination.

6. Commencement of Construction

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

IV. ADVERSE IMPACT

The Permittee shall take all reasonable steps to minimize any adverse impact resulting from noncompliance with any limitation specified in this certification, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge. The Permittee shall not adversely impact any jurisdictional wetland without prior approval.

V. RIGHT OF ENTRY

The Permittee shall allow during normal business hours the Secretary of the Florida Department of Environmental Protection and/or authorized representatives, including representatives of the SFWMD upon the presentation of credentials:

- A. To enter upon the Permittee's premises where an emission or effluent source is located or in which records are required to be kept under the terms and conditions of this certification;
- B. To have access during normal business hours (Monday Friday, 7:00 a.m. to 3:30 p.m.) to any records required to be kept under the conditions of this certification for examination and copying;
- C. To inspect and test any monitoring equipment or monitoring method required in this certification and to sample any discharge or pollutants, or monitor any substances or parameters at any location reasonably necessary to assure compliance with this certification or Department rules; and,
 - D. To assess any damage to the environment or violation of ambient standards.

VI. REVOCATION OR SUSPENSION

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

VII. CIVIL AND CRIMINAL LIABILITY

This certification does not relieve the Permittee from civil or criminal penalties for noncompliance with any conditions of this certification, applicable rules or regulations of the Department or Chapter 403, F.S., or regulations thereunder.

Subject to Section 403.511, F.S., this certification shall not preclude the institution of any legal action or relieve the Permittee from any responsibilities or penalties established pursuant to any other applicable state statutes or regulations.

VIII. PROPERTY RIGHTS

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

IX. SEVERABILITY

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

X. REVIEW OF SITE CERTIFICATION

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

XI. MODIFICATION OF CONDITIONS

- A. Pursuant to Subsection 403.516(l), F.S., the Siting Board hereby delegates the authority to the Secretary to modify any condition of this certification, except that any proposed modification to burn a fuel other than natural gas or oil shall be reviewed by the Board.
- B. Subject to the notice requirements of 403.516(l), F.S., the certification shall be automatically modified to conform to subsequent DEP-issued amendments, modifications or renewals of any separately-issued Prevention of Significant Deterioration (PSD) permit, Title V Air Operation permit, or National Pollutant Discharge Elimination System (NPDES) permit for the project and the conditions of such permits shall be controlling over these Conditions of. Certification.

XII. CONSTRUCTION

A. Standards and Review of Plans

- application and the standards or plans and drawings submitted and signed by an engineer registered in the state of Florida. Specific Central District office acceptance of plans will be required based upon a determination of consistency with approved design concepts, regulations and these conditions prior to initiation of construction of any: industrial waste treatment facilities; domestic waste treatment facilities; potable water treatment and supply systems; ground water monitoring systems and storm water runoff systems; solid waste disposal areas; facilities impacting jurisdictional wetlands, and hazardous or toxic handling facilities or areas. The Applicant shall present specific facility plans for these facilities for review by the Central District office at least ninety (90) days prior to construction of those portions of the facility for which the plans are then being submitted, unless other time limits are specified in the following conditions herein. Review and approval or disapproval shall be accomplished in accordance with Chapter 120, F.S., or these conditions of certification as applicable.
- 2. The Department must be notified in writing and prior written approval obtained for any changes, modification, or revision to be made to the project during construction which is in conflict with these conditions of certification. If there are any changes, modification, or revision made to a project approved by the Department without this prior written approval, the project will be considered to have been constructed without departmental approval, the construction will not be cleared for service, and the construction will be considered a violation of the conditions of certification.
- 3. Ninety (90) days prior to the anticipated date of first operation, the KUA shall provide the Department with an itemized list of any changes made to the facility design and operation plans that would affect a change in discharge as referenced in Condition II since the time of the approval of these conditions. This pre-operational review of the final design and operation shall demonstrate continued compliance with Department rules and standards.

B. Control Measures

Storm Water Runoff

To control runoff during construction which may reach and thereby pollute waters of the state, necessary measures shall be utilized to settle, filter, treat or absorb silt-containing or pollutant-laden storm water to ensure against spillage or discharge of excavated material that may cause turbidity in excess of 29 Nephelometric Turbidity Units above background in waters of the state. Control measures may consist of sediment traps, barriers, berms, and vegetation plantings. Exposed or disturbed soil shall be protected and stabilized as soon as possible to minimize silt and sediment-laden runoff. The pH of the runoff shall be kept within the range of 6.0 to 8.5.

2. Open Burning

Any open burning in connection with initial land clearing shall be in accordance with Chapter 62-256, F.A.C., Chapter 51-2, F.A.C., Uniform Fire Code Section 33. 101 Addendum, and any other applicable county regulation. Any burning of construction-generated material, after initial land clearing that is allowed to be burned in accordance with Chapter 62-256, F.A.C., shall be approved by the Central District office in conjunction with the Division of Forestry and any other county regulations that may apply. Burning shall not occur unless approved by the appropriate agency or if the Department or the Division of Forestry has issued a ban on burning due to fire safety conditions or due to air pollution conditions.

3. Sanitary Wastes

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

4. Solid Wastes

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

5. Noise

Construction noise shall not exceed noise requirements of the Osceola County Noise Ordinance except as exempted by the Conditional Use Permit CU/SDP 92-86, or as exempted by the Ordinance between 7 a.m. and sunset. KUA and FMPA shall notify area residents in advance of the onset of the steam blowout of the Unit 3 heat recovery steam generator and steam lines phase of construction, which shall be conducted between 7:00 a.m. and sunset

6. Dust and Odors

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

7. Transmission Lines

The directly associated transmission lines from the Cane Island Power Park electric switchyard to the existing Florida Power Corporation Intercession City Plant shall be maintained in accordance with the application and the appropriate state and federal regulations concerning use of herbicides. The KUA shall notify the Central District office of the Department of the type of herbicide to be used at least 60 days prior to its first use.

8. Protection of Vegetation

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

9. Dewatering Operations

The dewatering operations during construction shall be carried out in accordance with Rule 62-621.300(2), F.A.C.

10. Historical or Archaeological Finds

If historical or archaeological artifacts, such as Indian canoes, are discovered at any time within the project site, the Permittee shall notify the DEP Central District office and the Bureau of Historic Preservation, Division of Historical Resources, R.A. Gray Building,, Florida 32399, telephone number (850) 487-2073.

C. Environmental Control Program

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

D. Reporting

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

XIII. AIR

A. General And Administrative Requirements

- Regulating, Agencies: All documents related to applications for permits to construct, operate or modify an emissions unit should be submitted to the Bureau of Air Regulation (BAR), Florida Department of Environmental Protection (FDEP), at 2600 Blairstone Road, Mail Station 23, Tallahassee, Florida 32399-2400 and telephone number (850)488-0114. All documents related to reports, tests, and notifications should be submitted to the DEP Central District Office, 3319 Maguire Boulevard, Suite 232, Orlando, Florida 32803-3767 and telephone number 407/894-7555.
- 2. General Conditions: The owner and operator is subject to and shall operate under the attached General Permit Conditions G. I through G. 15 listed in Appendix GC of this permit. General Permit Conditions are binding and enforceable pursuant to Chapter 403 of the Florida Statutes. [Rule 62-4.160, F.A.C.]
- 3. Terminology: The terms used in this permit have specific meanings as defined in the corresponding chapters of the Florida Administrative Code.
- 4. Forms and Application Procedures: The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. [Rule 62-210.900, F.A.C.]
- 5. Modifications: The permittee shall give written notification to the Department when there is any modification to this facility. This notice shall be submitted sufficiently in advance of any critical date involved to allow sufficient time for review, discussion, and revision of plans, if necessary. Such notice shall include, but not be limited to, information describing the precise nature of the change; modifications to any emission control system; production capacity of the facility before and after the change; and the anticipated completion date of the change. [Chapters 62-2 10 and 62-212, F.A.C.]
- 6. Expiration: Approval to construct shall become invalid if construction is not commenced within 18 months after receipt of such approval, or if construction is discontinued for a period of 18 months or

more, or if construction is not completed within a reasonable time. The Department may extend the 18-month period upon a satisfactory showing that an extension is justified. [40 CFR 52.21(r)(2)]

- 7. BACT Determination: In conjunction with extension of the 18 month periods to commence or continue construction, or extension of the December 31, 2002 permit expiration date, the permittee may be required to demonstrate the adequacy of any previous determination of best available control technology for the source. [40 CFR 52.216)(4)]
- 8. Permit Extension: The permittee, for good cause, may request that this PSD permit be extended. Such a request shall be submitted to the Bureau of Air Regulation prior to 60 days before the expiration of the permit (Rule 62-4.080, F.A.C.).
- 9. Application for Title IV Permit: An application for a Title V Acid Rain Permit, must be submitted to the U.S. Environmental Protection Agency Region IV office in Atlanta, Georgia, and a copy to the DEP's Bureau of Air Regulation in Tallahassee, Florida, 24 months before the date on which the new unit begins serving an electrical generator (greater than 25 MW). [40 CFR 72]
- 10. Application for Title V Permit: An application for a Title V operating permit, pursuant to Chapter 62-213, F.A.C., must be submitted to the DEP's Bureau of Air Regulation, and a copy to the Department's Central District Office. [Chapter 62-213, F.A.C.]
- New or Additional Conditions: Pursuant to Rule 62-4.080, F.A.C., for good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]
- Annual Reports: Pursuant to Rule 62-210.370(2), F.A.C., Annual Operation Reports, the permittee is required to submit annual reports on the actual operating rates and emissions from this facility. Annual operating reports shall be sent to the DEP's Central District Office by March 1st of each year.
- 13. Stack Testing Facilities: Stack sampling facilities shall be installed in accordance with Rule 62-297.310(6), F.A.C.
- 14. Quarterly Reports: Quarterly excess emission reports, in accordance with 40 CFR 60.7 (a)(7) (c) (1997 version), shall be submitted to the DEP's Central District Office.

B. Applicable Standards And Regulations

- 1. Unless otherwise indicated in this permit, the construction and operation of the subject emission unit(s) shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of Chapter 403, F.S. and Florida Administrative Code Chapters 62-4, 62-17, 62-204, 62-210, 62-212, 62-213, 62-214, 62296, and 62-297; and the applicable requirements of the Code of Federal Regulations Section 40, Parts 52, 60, 72, 73, and 75.
- 2. Issuance of this, permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting requirements or regulations. [Rule 62-210.300, F.A.C.]

- 3. These emission units shall comply with all applicable requirements of 40 CFR 60, Subpart A, General Provisions including:
 - 40 CFR 60.7, Notification and Record keeping
 - 40 CFR 60.8, Performance Tests
 - 40 CFR 60.11, Compliance with Standards and Maintenance Requirements
 - 40 CFR 60.12, Circumvention
 - 40 CFR 60.13, Monitoring Requirements
 - 40 CFR 60.19, General Notification and Reporting requirements
- 4. ARMS Emissions Unit 003. Direct Power Generation, consisting of a nominal 167 megawatt combustion turbine-electrical generator, shall comply with all applicable provisions of 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines, adopted by reference in Rule 62-204.800(7)(b), F.A.C. The Subpart GG requirement to correct test data to ISO conditions applies. However, such correction is not used for compliance determinations with the BACT standard(s).
- 5. ARMS Emission Unit 004. Fuel Storage, consisting of a 1.0 million gallon distillate fuel oil storage tank shall comply with all applicable provisions of 40 CFR 60, Subpart Kb, Standards of Performance for Volatile Organic Liquid Storage Vessels, adopted by reference in Rule 62-204.800, F.A.C.
- 6. ARMS Emission Unit 005. Steam Power Generation, consisting of a supplementally-fired heat recovery steam generator equipped with a natural gas fired 44 mmBTU/hr duct burner (HHV) and 80-90 MW steam electrical generator shall comply with all applicable provisions of 40 CFR 60, Subpart Dc, Standards of Performance for Small Industrial Commercial -Institutional Steam Generating Units Which Construction is Commenced After June 9, 1989, adopted by reference in Rule 62-204.800(7), F.A.C.
- 7. ARMS Emission Unit 006. Cooling Tower, is an unregulated emission unit. The Cooling Tower is not subject to a NESHAP because Chromium-based chemical treatment is not used.
- 8. All notifications and reports required by the above specific conditions shall be submitted to the DEP's Central District Office.

C. General Operation Requirements

- 1. Fuels: Only pipeline natural gas or maximum 0.05 percent sulfur fuel oil No. 2 or superior grade of distillate fuel oil shall be fired in this unit. [Applicant Request, Rule 62-210.200, F.A.C. (Definitions Potential Emissions)]
- 2. Combustion Turbine Capacity: The maximum heat input rates, based on the lower heating value (LHV) of each fuel to this Unit at ambient conditions of 190F temperature, 55% relative humidity, 100% load, and 14.7 psi pressure shall not exceed 1,696 million Btu per hour (mmBtu/hr) when firing natural gas, nor 1,910 mmBtu/hr when firing No. 2 or superior grade of distillate fuel oil. These maximum heat input rates will vary depending upon ambient conditions and the combustion turbine characteristics. Manufacturer's curves corrected for site conditions or equations for correction to other ambient conditions shall be provided to the Department of Environmental Protection (DEP) within 45 days of completing the initial compliance testing. [Design, Rule 62-210.200, F.A.C. (Definitions Potential Emissions)]

- 3. Heat Recovery Steam Generator equipped with Duct Burner: The maximum heat input rate of the natural gas fired duct burner shall not exceed 44 mmBtu/hour (HH'V). [Applicant Request, Rule 62-210.200, F.A.C. (Definitions Potential Emissions)]
- 4. Unconfined Particulate Emissions: During the construction period, unconfined particulate matter emissions shall be minimized by dust suppressing techniques such as covering and/or application of water or chemicals to the affected areas, as necessary.
- 5. Plant Operation Problems. If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by fire, wind or other cause, the owner or operator shall notify the DEP Central District office as soon as possible, but at least within (1) working day, excluding weekends and holidays. _The notification shall include: pertinent information as to the cause of the problem; the steps being taken to correct the problem and prevent future recurrence; and where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with the conditions of this permit and the regulations. [Rule 624.130, F.A.C.]
- 6. Operating Procedures: Operating procedures shall include good operating practices and proper training of all operators and supervisors. The good operating practices shall meet the guidelines and procedures as established by the equipment manufacturers. All operators (including supervisors) of air pollution control devices shall be properly trained in plant specific equipment. [Rule 624.070(3), F.A.C.]
- 7. Circumvention: The owner-or operator shall not circumvent the air pollution control equipment or allow the emission of air pollutants without this equipment operating properly. [Rules 62-210.650, F.A.C.]
- 8. Maximum allowable hours of operation for the 250 MW Combined Cycle Plant are 8760 hours per year while firing natural gas. Fuel oil firing of the combustion turbine is permitted for a maximum of 720 hours per year. [Applicant Request, Rule 62-210.200, F.A.C. (Definitions Potential Emissions)]
- 9. Simple Cycle Operation The plant may be operated in simple cycle mode. Different limits apply depending upon whether simple cycle operation is of an intermittent nature, such as due to maintenance of equipment following the combustion turbine or temporary electrical demand fluctuations, or of a longer term nature, such as a decision to not install the heat recovery steam generator or long term electrical demand situations.

D. Control Technology

- 1. Dry Low NOx (DLN) combustors shall be installed on the stationary combustion turbine and Low NOx burners shall be installed in the duct burner arrangement to comply with the NOx emissions limits listed in Conditions XIII.E. I. and E.2. [Design, Rules 62-4.070 and 62-212.400, F.A.C.]
- 2. A water injection system shall be installed for use when firing No. 2 or superior grade distillate fuel oil for control of NOx emissions. [Design, Rules 62-4.070 and 62212.400, F.A.C.]
- 3. The permittee may design the heat recovery steam generator to accommodate installation of selective catalytic reduction or oxidation catalyst technologies and comply with the corresponding NOx and CO limits listed in Conditions M.E I., E.2. and E.3.. [Rules 62-212.400 and 624.070, F.A.C.]

- 4. The permittee shall design these units to accommodate adequate testing and sampling locations for compliance with the applicable emission limits (per each unit) listed in Conditions XIII.E. 1. through E.6. [Rule 624.070, Rule 62-204.800, F.A.C., and 40 CFR 60.40a(b)]
- 5. The permittee shall provide manufacturer's emissions performance versus load diagrams for the DLN and wet injection systems prior to their installation. DLN systems shall each be tuned upon initial operation to optimize emissions reductions and shall be maintained to minimize NO_x emissions and CO emissions. [Rule 62-4.070, and 62-210.650 F.A.C.] Drift eliminators shall be installed on the cooling tower to reduce PM/PMIO emissions.
 - 6. Drift eliminators shall be installed on the cooling tower to reduce PM/PMIO emissions.

E. Emission Limits And Standards

1. The following table is a summary of the BACT determination and is followed by the applicable specific conditions. Values for NOx are corrected to 15% O₂. These limits or their equivalent in terms of lb/hr or NSPS units, as well as the applicable averaging times, are followed by the applicable specific conditions. Each Unit shall be tested alone to comply with the applicable NSPS and as a Combined Unit to comply with the BACT limits as indicated below: [Rules 62-212.400, 62-204.800(7)(b) (Subpart GG and Dc), 62-210.200 (Definitions-Potential Emissions) F.A.C.]

POLLUTANT	CONTROL TECHNOLOGY	BACT DETERMINATION
PM/PM ₁₀ VE	Pipeline Natural Gas Good Combustion	10 Percent Opacity 5 ppm Ammonia Slip if SCR is used
VOC	As Above	1.4 ppm (Gas, CT on, DB otY) 4 ppm (Gas, CT and DB on)) 10 ppm for F.O.
СО	As Above	12 ppm (Gas, CT on, DB off) 20 ppm (Gas, CT and DB on) 30 ppm for F.O.
NOx (CT on, DB off)	DLN, or DLN & SCR for gas WI or SCR for fuel oil 720 Hours on fuel oil with DB On or Off	9 ppm (DLN) or 4.5 ppm (SCR) for gas 42 ppm (WI) or 15 ppm (SCR) for fuel oil 12/42 ppm (gas/oil) Intermittent Simple Cycle
NOx (CT and DB on)	DLN & Low NO,, or DLN & SCR for gas WI & Low NO.x, or SCR for fuel oil Duct burner only fires natural gas	9.4 ppm (DLN) or 4.5 ppm (SCR) for gas 42 ppm (WI) or 15 ppm (SCR) for fuel oil DB limited to 0.4 lb/MW-hr

2. Nitrogen Oxides (NOx) Emissions:

a. Combined Cycle and Continuous Simple Cycle Operation

The concentration of NOx in the stack exhaust gas, with the combustion turbine operating on gas (fuel oil) and the duct burner off shall not exceed 9 (42) ppmvd at 15% O₂ (24-hr block average), and with the combustion turbine operating and the duct burner on shall not exceed 9.4 (42) ppmvd at 15% O₂ (24-hour block average). Compliance will be determined by the continuous emission monitor (CEMS). Emissions of NO_x in the stack exhaust gas (at ISO conditions) with the combustion turbine operating shall not exceed 65 (310) pounds per hour (lb/hr) with the duct burner off and 68 (310) lb/hr with the duct burner on to be demonstrated by initial stack test. [40 CFR 60 Subpart GG and Rule 62-212.400, F.A.C.]

If selective catalytic reduction (SCR) technology is installed, the concentration of NOx in the stack exhaust gas, with the combustion turbine operating on gas (fuel oil) and the duct burner on or off, shall not exceed 4.5 (15) ppmvd @ 15% O₂ on a 3-hr block average. Compliance shall be determined by the continuous emission monitor (CEMS). Emissions of NO_x calculated as NO₂ in the stack exhaust gas (at ISO conditions) with the combustion turbine operating shall not exceed 33 (108) pounds per hour (lb/hr) with the duct burner on or off to be demonstrated by initial stack test. [40CFR60 Subpart GG and Rule 62-212.400, F.A.C.]

If SCR is installed, the concentration of ammonia in the exhaust gas from each combustion turbine shall not exceed 5 ppm. The compliance procedures will be included in the final permit. [Rules 62-212.400, and 62-4.070, F.A.C.]

Unless SCR is employed, emissions of NOx from the duct burner shall not exceed 0.4 lb/MW-hr (gross output). [Rule 62-212.400, F.A.C.]

When NOx monitoring data is not available, substitution for missing data shall be handled as required by Title IV (40 CFR 75) to calculate any specified average time.

b. Intermittent Simple Cycle Operation

The concentration of NOx in the stack exhaust gas, with the combustion turbine operating on gas (fuel oil) shall not exceed 12 (42) ppmvd at 15% O_2 (24-hr block average). Emissions of NOx in the stack exhaust gas (at ISO conditions) with the combustion turbine operating shall not exceed 86 (310) pounds per hour (lb/hr). [Rule 62-212.400, F.A.C. and 40CFR60 Subpart GG]

Notwithstanding the applicable NO. limit during simple cycle operation, reasonable measures shall be implemented to maintain the concentration of NO_x in the exhaust gas at 9 ppmvd at 15% O_2 or lower. Any tuning of the combustors for Dry Low NO., operation while firing gas shall result in initial concentrations of 9,ppmvd @ 15% O_2 or lower. [Rules 62212.400 and 62-4.070, F.A.C.]

When NO_x monitoring data is not available, substitution for missing data shall be handled as required by Title IV (40 CFR 75) to calculate any specified average time.

3. Carbon Monoxide (CO) Emissions

Emissions of CO in the stack exhaust gas (at ISO conditions) with the combustion turbine operating on gas (fuel oil) shall exceed neither 12 (20) ppm nor 43 (71) lb/hr with the duct burner off and neither 20 (30) ppm nor 71 (108) lb/hr with the duct burner on to be demonstrated by stack test using EPA Method 10. [Rule 62-212.400, F.A.C.]

4. Volatile Organic Compounds (VOC) Emissions

Emissions of VOC in the stack exhaust gas (at ISO conditions) with the combustion turbine operating on gas (fuel oil) shall exceed neither 1.4 (10) ppm nor 3 (21.4) lb/hr with the duct burner off and neither 4 (10) ppm nor 8.5 (21.4) lb/hr with the duct burner on to be demonstrated by initial stack test using EPA Method 18, 25 or 25A. [Rule 62-212.400, F.A.C.]

5. Sulfur Dioxide (SO₂) emissions

SO₂ emissions shall be limited by firing pipeline natural gas (sulfur content less than 20 grains per 100 standard cubic foot) or by firing_No. 2 or superior grade distillate fuel oil with a maximum 0.05 percent sulfur for 720 hours per year. Compliance with this requirement in conjunction with implementation of the Custom Fuel Monitoring Schedule in Specific Conditions XIII.I.5 and I.6 will demonstrate compliance with the applicable NSPS SO₂ emissions limitations from the duct burner or the combustion turbine. Emissions of SO₂, shall not exceed 38.1 tons per year. [40 CFR 60 Subpart GG and Rules 62-4.070, 62-212.400, and 62-204.800(7), F.A.C. to avoid PSD Review]

6. Visible emissions (VE)

VE emissions shall serve as a surrogate for PM/PM₁₀ emissions from the combustion turbine operating with or without the duct burner and shall not exceed 10 percent opacity from the stack in use. [Rules 62-4.070, 62-212.400, and 62-204.800(7), F.A.C.]

F. Excess Emissions

- 1. Excess emissions resulting from startup, shutdown, or malfunction shall be permitted provided that best operational practices are adhered to and the duration of excess emissions shall be minimized. Excess emissions occurrences shall in no case exceed two hours in any 24-hour period except during both "cold start-up" to or shutdowns from combined cycle plant operation. During start-up to simple cycle operation, up to one hour of excess emissions are allowed. During cold start-up to combined cycle operation, up to four hours of excess emissions are allowed. During shutdowns from combined cycle operation, up to three hours of excess emissions are allowed. Cold start-up is defined as a startup to combined cycle operation following a complete shutdown lasting at least 48 hours. [Applicant Request, G.E. Combined Cycle Startup Curves Data and Rule 62-210.700, F.A.C.]
- 2. Excess emissions entirely or in part by poor maintenance, poor operation, or any other equipment or process failure that may reasonably be prevented during startup, shutdown or malfunction, shall be prohibited pursuant to Rule 62-210.700, F.A.C. These emissions shall be included in the 24-hr average for NO_x.
- 3. Excess Emissions Report: If excess emissions occur for more than two hours due to malfunction, the owner or operator shall notify DEP's Central District office within (1) working day of the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Department may request a written summary report of the incident. Pursuant to the New Source Performance Standards, all excess emissions shall also be reported in accordance with 40 CFR 60.7, Subpart A. Following this format, 40 CFR 60.7, periods of startup, shutdown, malfunction, shall be monitored, recorded, and reported as excess emissions when emission levels exceed the permitted standards listed in Specific Conditions XIII.E. 1 and 2. [Rules 62-4.130, 62-204.800, 62-210.700(6), F.A.C., and 40 CFR 60.7 (1997 version)].

G. Compliance Determination

1. Allowable Emission Limiting Standards

Compliance with the allowable emission limiting standards shall be determined within 60 days after achieving the maximum production rate, but not later than 180 days of initial operation of the unit, and annually thereafter as indicated in this permit, by using the following reference methods as described in 40 CFR 60, Appendix A (1997 version), and adopted by reference in Chapter 62-204.800, F.A.C.

2. Initial (I) Performance Tests

Initial performance tests (for both fuels) shall be performed by the deadlines in Specific Condition XIII.G.1. Initial tests shall also be conducted after any substantial modifications (and shake down period not to exceed 100 days after re-starting the CT) of air pollution control equipment such as installation of SCR or change of combustors. Annual (A) compliance tests shall be performed during every federal fiscal year (October 1 - September 30) pursuant to Rule 62297.310(7), F.A.C., on these units as indicated. The following reference methods shall be used. No other test methods may be used for compliance testing unless prior DEP approval is received in writing.

EPA Reference Method 9, "Visual Determination of the Opacity of Emissions from Stationary Sources" (I,A)

EPA Reference Method 10, "Determination of Carbon Monoxide Emissions from Stationary Sources" (I, A).

EPA Reference Method 20, "Determination of Oxides of Nitrogen Oxide, Sulfur Dioxide and Dilutent Emissions from Stationary Gas Turbines." Initial test only for compliance with 40 CFR 60 Subpart GG, Dc. NO_x BACT limits compliance by CEMs (24-hr average or 3-hr average if SCR is installed).

EPA Reference Method 18, 25 and/or 25A, "Determination of Volatile Organic Concentrations." Initial test only.

3. Continuous Compliance with the NOx Emission Limits

Continuous compliance with the NOx emission limits shall be demonstrated with the CEM system based on the applicable averaging time of 24-hr block average (DLN) or a 3-hr average (if SCR is used). Based on CEMS data, a separate compliance determination is conducted at the end of each operating day (or 3-hr period when applicable) and a new average emission rate is calculated from the arithmetic average of all valid hourly emission rates from the previous operating day (or 3-hr period when applicable). Valid hourly emission rates shall not include periods of start up, shutdown, or malfunction unless prohibited by 62-210.700 F.A.C. A valid hourly emission rate shall be calculated for each hour in which at least two NOx concentrations are obtained at least 15 minutes apart. These excess emissions periods shall be reported as required in Condition XIII.F.3. [Rules 62-4.070 F.A.C., 62-210.700, F.A.C., 40 CFR 75 and BACT]

4. Compliance with the SO, and PM/PM10 Emission Limits

Notwithstanding the requirements of Rule 62-297.340, F.A.C., the use of pipeline natural gas is the method for determining compliance for SO₂ and PM₁₀. For the purposes of demonstrating compliance with the 40 CFR 60.333 SO₂ standard, ASTM methods D4084-82 or D3246-81 (or equivalent) for sulfur content of gaseous fuel shall be utilized in accordance with the EPA-approved custom fuel monitoring schedule or natural gas supplier data may be submitted or the natural gas sulfur content referenced in 40 CFR 75 Appendix D may be utilized. However, the applicant is responsible for ensuring that the procedures in 40 CFR 60.335 or 40 CFR 75 are used when determination of fuel sulfur content is made. Analysis may be performed by the owner or operator, a service contractor retained by the owner or operator, the fuel vendor, or any other qualified agency pursuant to 40 CFR 60.335(e) (1997 version).

5. Compliance with CO Emission Limit

An initial test for CO, shall be conducted concurrently with the initial NOx test, as required. The initial NO_x and CO test results shall be the average of three valid one-hour runs. Annual compliance testing for CO may be conducted at less than capacity when compliance testing is conducted concurrent with the annual RATA testing for the NO_x CEMS required pursuant to 40 CFR 75. Alternatively to annual testing in a given year, periodic tuning data may be provided to demonstrate compliance in the year the tuning is conducted.

6. Compliance with the VOC Emission Limit

An initial test is required to demonstrate compliance with the VOC emission limit. Thereafter, the CO emission limit and periodic tuning data will be employed as surrogate and no annual testing is required.

7. Testing Procedures

Testing of emissions shall be conducted with the combustion turbine operating at permitted capacity. Permitted capacity is defined as 95-100 percent of the maximum heat input rate allowed by the permit, corrected for the average ambient air temperature during the test (with 100 percent represented by a curve depicting heat input vs. ambient temperature). If it is impracticable to test at permitted capacity, the source may be tested at less than permitted capacity. In this case, subsequent operation is limited by adjusting the entire heat input vs. ambient temperature curve downward by an increment equal to the difference between the maximum permitted heat input (corrected for ambient temperature) and 105 percent of the value reached during the test until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purposes of additional compliance testing to regain the permitted capacity. Procedures for these tests shall meet all applicable requirements (i.e., testing time frequency, minimum compliance duration, etc.) of Chapters 62-204 and 62-297, F.A.C.

8. Test Notification

The DEP's Central District office shall be notified, in writing, at least 30 days prior to the initial performance tests and at least 15 days before annual compliance test(s).

9. Special Compliance Tests

The DEP may request a special compliance test pursuant to Rule 62-297.310(7), F.A.C., when, after investigation (such as complaints, increased visible emissions, or questionable maintenance of control equipment), there is reason to believe that any applicable emission standard is being violated.

10. Test Results

Compliance test results shall be submitted to the DEP's Central District office no later than 45 days after completion of the last test run. [Rule 62-297.310(8), F.A.C.].

H. Notification, Reporting, And Record Keeping

1. Records

All measurements, records, and other data, required to be maintained by KUA shall be recorded in a permanent form and retained for at least five (5) years following the date on which such measurements, records, or data are recorded. These records shall be made available to DEP representatives upon request.

2. Compliance Test Reports

The test report shall provide sufficient detail on the tested emission unit and the procedures used to allow the Department to determine if the test was properly conducted and if the test results were properly computed. At a minimum, the test report shall provide the applicable information listed in Rule 62-297.310(8), F.A.C.

I. Monitoring Requirements

1. Continuous Monitoring System

The permittee shall install, calibrate, maintain, and operate a continuous emission monitor in the stack to measure and record the nitrogen oxides emissions from these units. Periods when NOx emissions (ppmvd @ 15% oxygen) are above the BACT standards, listed in Specific Condition XIII.E.1. and 2, shall be reported to the DEP Central District Office within one working day (verbally) followed up by a written explanation not later than three (3) working days (alternatively by facsimile within one working day). [Rules 62-204.800, 62-210.700, 624.130, 62-4.160(8), F.A.C. and 40 CFR 60.7 (1997 version)].

2. CEMS for reporting excess emissions

Subject to EPA approval, the NOx CEMS shall be used in lieu of the requirement for reporting excess emissions in accordance with 40 CFR 60.334(c)(1), Subpart GG (1997 version). Upon request from DEP, the CEMS emission rates for NOx on the CT shall be corrected to ISO conditions to demonstrate compliance with the NOx standard established in 40 CFR 60.332.

3. CEMS in lieu of Water to Fuel Ratio

Subject to EPA approval, the NOx CEMS shall be used in lieu of the water/fuel monitoring system for reporting excess emissions in accordance with 40 CFR 60.334(c)(1), Subpart GG (1997 version). Subject to EPA approval, the calibration of the water/fuel monitoring device required in 40 CFR 60.335 (c)(2) (1997 version) will be replaced by the 40 CFR 75 certification tests of the NOx CEMS. Upon request from DEP, the CEMS emission rates for NOx on this Unit shall be corrected to ISO conditions to demonstrate compliance with the NOx standard established in 40 CFR 60.332.

4. Continuous Monitoring System Reports

The monitoring devices shall comply with the certification and quality assurance, and any other applicable requirements of Rule 62-297.520, F.A.C., 40 CFR 60.13, including certification of each device in accordance with 40 CFR 60, Appendix B, Performance Specifications and 40 CFR 60.7(a)(5) or 40 CFR Part 75. Quality assurance procedures must conform to all applicable sections of 40 CFR 60, Appendix F or 40 CFR 75. The monitoring plan, consisting of data on CEM equipment specifications, manufacturer, type, calibration and maintenance needs, and its proposed location shall be provided to the DEP Emissions Monitoring Section Administrator and EPA for review no later than 45 days prior to the first scheduled certification test pursuant to 40 CFR 75.62.

5. Natural Gas Monitoring Schedule

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

- a. The permittee shall apply for an Acid Rain permit within the deadlines specified in 40 CFR 72.30.
- b. The permittee shall submit a monitoring plan, certified by signature of the Designated Representative, that commits to using a primary fuel of pipeline supplied natural gas (sulfur content less than 20 gr/100 scf pursuant to 40 CFR 75.1 l(d)(2)).
- c. Each unit shall be monitored for SO₂ emissions using methods consistent with the requirements of 40 CFR 75 and certified by the USEPA.

This custom fuel monitoring schedule will only be valid when pipeline natural gas is used as a primary fuel. If the primary fuel for these units is changed to a higher sulfur fuel, SO₂ emissions must be accounted for as required pursuant to 40 CFR 75.11 (d).

6. Fuel Oil Monitoring Schedule

The following monitoring schedule for No. 2 or superior grade fuel oil shall be followed: For all bulk shipments of No. 2 fuel oil received at this facility an analysis which reports the sulfur content and nitrogen content of the fuel shall be provided by the fuel vendor. The analysis shall also specify the methods by which the analyses were conducted and shall comply with the requirements of 40 CFR 60.335(d).

7. Determination of Process Variables

The permittee shall operate and maintain equipment and/or instruments necessary to determine process variables, such as process weight input or heat input, when such data is needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.

Equipment and/or instruments used to directly or indirectly determine such process variables, including devices such as belt scales, weigh hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value [Rule 62-297.310(5), F.A.C.]

8. Subpart Dc Monitoring and Record keeping Requirements

The permittee shall comply with all applicable requirements of this Subpart [40CFR60, Subpart Dc] 1, ARMS Emissions Unit 003. Direct Power Generation, consisting of a nominal 167 megawatt combustion turbine-electrical generator, shall comply with all applicable provisions of 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines, adopted by reference in Rule 62-204.800(7)(b), F.A.C. The Subpart GG requirement to correct test data to ISO conditions applies. However, such correction is not used for compliance determinations with the BACT standard(s).

J. Cane Island Power Park Units 1& 2 Conditions

For Cane Island Power Park Units 1 & 2 operation shall be in compliance with existing PSD Permit No. FL 182 until the new air operating conditions for Unit 3 are incorporated in the overall Title V Air Operation Permit, Permit No. FL 254 attached as Appendix I (Reserved).

XIV. Stormwater Discharge

- A. The existing Cane Island Generating Station surface water management system is permitted to discharge storm water under the terms and conditions imposed by EPA's storm water multi-sector general permit issued for use in the state of Florida. The facility's permit number is FLR05B777. The KUA is required to continue to update the Cane Island Power Park's Storm Water Pollution Prevention Plan (SWPPP) annually, as required by the general permit, and to implement the annual revisions to the SWPPP.
- B. New construction on the Cane Island site must meet the requirements of Chapter 40E-4 of the Florida Administrative Code, as well as the design requirements presented in the Site Certification Application (SCA). The new stormwater facilities associated with Cane Island Unit 3 will not become operational until an engineer practicing in the State of Florida in compliance with Section 471.003(2)(d) Florida Statutes, and with the appropriate experience in surface water design, certifies that these facilities have been constructed in accordance with the design as approved by the Florida Department of Environmental Protection (FDEP).
- C. This certification is predicated on the KUA's submitted information to FDEP which reasonably demonstrates that adverse off-site water resource related impacts will not be caused by the authorized activities
- D. FDEP representatives shall be allowed reasonable escorted access to the power plant site to inspect and observe any activities associated with the Cane Island Unit 3 Project construction and/or the operation and/or maintenance of the surface water management system in order to determine compliance with the conditions of this certification. The KUA shall not refuse immediate entry or access, upon reasonable notice, to any FDEP representative who requests entry for the above noted inspection and presents appropriate credentials.
- E. The KUA shall hold and save FDEP harmless from any and all damages, claims, or liabilities which may arise by reason of the construction, operation, maintenance and/or use of any facility authorized by this certification, to the extent allowed under Florida law.

XV. Domestic Wastewater

The KUA is authorized to continue disposing of domestic wastewater in the Cane island septic tank/drainfield sewerage treatment system. Any future request for onsite treatment will require approval to construct and operate any such new facility and will be subject to the non-procedural provisions of Chapter 403, F.S., and F;A.C. Chapters 62-3, 62-4, and pertinent chapters within the 62-300, 62-500 and 62-600 Series.

XVI. Drinking Water Facilities

A. Use of Existing Facilities

The approval to operate and expand the distribution system for the existing potable water distribution system is subject to the non-procedural provisions of Chapter 403, F.S., and pertinent Chapters within the

F.A.C. Rules in Chapter 62-500 Series and Chapter 62-699. The KUA is approved to continue to operate the existing, permitted potable water system as shown on any previous ly-submitted and approved drawings, plans, and other documents attached thereto or on file with the DEP or Department of Health and made a part thereof. The KUA will submit a copy of any revisions to current plans to the DEP Central District Office.

Pursuant to Rule 62-555.540, F.A.C., any proposed extension of the potable water system to serve the expanded plant facilities may be undertaken following the filing with the DEP of a completed copy of DEP Form 62-555.910(1), F.A.C. Such form shall be submitted no later than 90 days prior to beginning work on the extension of the distribution system to serve the new connections. This activity shall be subject to the requirements of Rule 62-555.540, F.A.C.

The conditions set forth on conditions X-VI.B. and C. below shall apply to any future construction or expansion of any potable water system on the site.

B. Prior Approval

- 1. No portion of a new potable water supply system or any portion of a water supply system that will be or is intended to be converted to potable water use at a later date may be constructed without prior written approval from the Department. Construction of any portion of a new potable water supply system without the prior written approval of the Department will be considered a violation of the conditions of certification.
- 2. In order to obtain approval to construct a new onsite water supply system where the potable water is to be supplied by an off-site water supply system, the following information must be submitted to the Department no earlier than eighteen (18) months nor later than six months prior to the date that the water supply system is proposed for construction:
- a. A completed and fully executed application form which complies with the nonprocedural requirements of the rules and regulations of the Department in effect as of the date that the request for approval to construct the system is made to the Department; however, the Department will not accept "An Intent to Use a General Permit" for such a project. Reference: F.A.C. Rules 62-4.050, 62-555.500, 520, and .530.
- b. Complete specifications for the material and workmanship covering the entire new potable water supply system for which the request for approval to construct is being made. The specification must be signed and sealed by an engineer registered in the state of Florida and must provide documentation that the material and workmanship will comply with all applicable nonprocedural rules of the Department in effect as of the date that the request for approval to construct is made to the Department. Reference: F.A.C. Rules 624.050, Rules 62-2.555.520, 62-555.530, and 21H-23.
- c. Complete engineering drawings of the entire proposed potable water supply system for which approval to construct is being made. The drawings must demonstrate full compliance with all applicable nonprocedural rules and regulations of the Department in effect as of date that the request for approval to construct is made to the Department. The drawing must be signed and sealed by an engineer registered in the state of Florida. Reference: F.A.C. Rules 62 and 4.050, 62-555.520, 62,-555.530, and 21H-23.
- d. Signed and sealed comprehensive engineering report on the new potable water supply system which fully describes that project and basis of design. The report must include design data and

such pertinent data to give an accurate understanding of the work to be undertaken and must provide supporting documentation that the new potable water system as proposed will comply with all applicable nonprocedural rules and regulations of the Department in effect as of the date that the request for approval to construct the water supply system is made to the Department. Reference: F.A.C. Rules 624.050, 62-555.520, 62-555.530, and 21H-23.

- e. Documentation that the public water supply system supplying the water has the capacity in its water treatment system to serve the project and that the existing water transmission line from that system's water treatment plant to the point of connection with water supply system the KUA is proposing to construct has been designed and sized to provide sufficient water to meet the demand of the KUA project. Reference: F.A.C. Rules 624.050, 62555.350, 62-555.520, and 62-555.530.
- 3. Should the KUA request approval to construct a potable water treatment system which produces a waste stream (e.g., softening, electrodialysis, reverse osmosis, etc.) other than as described in the original SCA, the KUA must submit as part of its request for approval to construct that water supply system documentation that the disposal of that waste stream has been approved by the appropriate agency or section of the Department.

C. Construction

- 1. The KUA must retain the services of a project engineer registered in the state of Florida to observe that the construction of any changes in the water supply system is in accordance with the plans and specifications approved by the Department. The project engineer will be responsible for certifying to the Department that he/she observed the construction and that the construction conformed to the plans and specifications approved by the Department.
- The approval to construct a new or modify the existing potable water supply system will be in effect for two (2) years from the date of issuance. All construction of the potable water supply system must be completed within this two (2) year period unless a written request for an extension of this date is made to the Department at least sixty (60) days prior to the expiration of the construction approval, and written approval for an extension of the expiration date is issued by the Department. The expiration date of the construction approval may be extended on a year-by-year basis. The maximum length of time that the approval or each subsequent approval for the construction of the potable water system may be in effect is five (5) years from the date of the original approval or for subsequent approvals from the date of issuance of each approval. Should the construction of the water supply system not be completed within that five (5) year period, should the KUA have failed to request a timely extension of the approval expiration date, or should any water quality analysis submitted with the request for an extension of the expiration date demonstrate the presence of a contaminant for which the water treatment plant was not originally designed to handle, or as additional wells are installed on-site and proposed for connection to the potable water system, the KUA will have to make a new request to the Department for approval to construct the potable water system. That request must meet the submittal and approval requirements of the rules of the Department in effect as of the date that the request for approval is submitted and will be subject to the same review schedule as the original request.
- 3. No future, modified portion of the potable water supply system may be placed into service without the prior written approval of the Department except as authorized herein for extension of the potable water distribution system. Placing any portion of a modified potable water supply system into service prior to receipt of this written approval will be considered as a violation of the conditions of certification.

- 4. The Department will not issue approval to place the modified or new potable water supply system or any portion of that system into service unless the construction of the system or portion thereof had been approved for construction by the Department prior to the commencement of that construction.
- 5. In order to obtain approval to place a new portion of the potable water supply system into service, the KUA must make a written request for clearance to the Department. The request must be in the form and/or manner stipulated in the letter authorizing construction of the potable water supply system and must include all information stipulated in that letter as being required to be submitted with the request for clearance, as well as any information required for clearance of a potable water supply system contained in applicable rules and regulations of the Department in effect as of the date that the request for clearance is made.
- 6. The Department will issue a letter of clearance to place the new or modified potable water supply system into service within thirty (30) days of receipt of a written request for clearance, provided that the request is accompanied by all necessary supporting documentation and meets the criteria for clearance contained in the applicable rules and regulations of the Department in effect as of the date that the request for clearance was made.

XVII. NPDES

A. Surface Water Discharge

This Condition of Certification is issued under the provisions of Chapter 403, Florida Statutes, and applicable rules of the Florida Administrative Code and constitutes authorization to discharge to waters of the state under the National Pollutant Discharge Elimination System. The KUA is hereby authorized to operate the facilities shown in the Cane Island Unit 3 Site Certification Application and other documents on file with the Department and made a part hereof and as specifically described in Permit No. FLA010961. Until Permit No. FLAO 10961 is updated to address Unit 3, the Cane Island Power Park will be allowed to operate as follows:

- 1. Operation: Of an industrial wastewater treatment and disposal system to serve the referenced Cane Island Power Park which includes a steam electric power generation plant and combustion turbine units. The facility presently includes two fossil-fueled electric generating units, Unit 1, a simple-cycle gas turbine rated at 40 MW (nominal) and Unit 2, a gas-fired combined cycle unit rated at 120 MW (nominal). The existing facility discharge consists of cooling water blowdown, low volume wastes, and chemical and non-chemical metal cleaning wastes.
- 2. Disposal: Effluent is presently discharged to the City of Kissimmee treated sewage effluent pipeline or to the approved land application system.

B. Other Limitations and Monitoring Requirements

- 1. The approved analytical methods and corresponding Department established MDL (method detection limits) and PQL (practical quantification limit) shall be used when conducting monitoring at sampling points G001, G002, INT-01, and INT-02 as required by Permit No. FLA010961.
- a. Results greater than or equal to the PQL shall be reported as the measured quantity.

- b. Results less than the PQL and greater than or equal to the MDL shall be reported as the PQL followed by the lab code "in", and shall be deemed equal to the MDL when necessary to calculate an average for that parameter.
- c. Results less than the MDL shall be reported as the MDL followed by the lab code "u". A value of one half the MDL or half the effluent limit, whichever is lower, shall be used for that sample when necessary to calculate an average for that parameter. Values less than the MDL are considered to demonstrate compliance with an effluent limit or monitoring requirement. [62-4.246, 6-13-96]
- 2. Monitoring results obtained for each calendar month shall be summarized for that month and reported on a Discharge Monitoring Report (DMR), Form 62-620.910(10), postmarked no later than the 28th day Of the month following the completed calendar month. For example, data for January shall be submitted by February 28. Signed copies of the DMR shall be submitted to the address specified below:

Florida Department of Environmental Protection Wastewater Facilities Regulation Section Mail Station 3550 Twin Towers Office Building, 2600 Blair Stone Road Tallahassee, Florida 32399-2400

If no discharge occurs during the reporting period, sampling requirements of this certification do not apply. The statement "No Discharge" shall be written on the DMR form. If, during the term period of this certification, the facility ceases to discharge, the Department shall be notified immediately upon cessation of discharge. Such notification shall be in writing. Additionally, the KUA shall notify the Department within 30 days, in writing, of the permanent shutdown of Units 5 and 6, and of the commencement of Commercial Operation of Unit 3.

3. Unless specified otherwise in this certification, all other reports and notifications required by these Conditions, including twenty-four hour notifications, shall be submitted to or reported to, as appropriate, the Department's Central District Office at the address specified below:

Florida Department of Environmental Protection Industrial Wastewater Section Central District Office 3319 Maquire Boulevard, Suite 232 Orlando, Florida 32803-3767 Phone number 407/894-7555.

- 4. There shall be no discharge of polychlorinated biphenyl compounds (PCBs) such as those commonly used for transformer fluid.
- 5. The KUA shall provide safe access points for obtaining representative samples which are required by this certification.
- 6. The KUA shall ensure that all laboratory analytical data submitted to the Department is from a laboratory which has a currently valid and Department-approved Comprehensive Quality Assurance Plan (CompQAP) [or a CompQAP pending approval] for all parameters being reported as required by 62-160, Florida Administrative Code.

7. Discharge of hydrazine in boiler blowdown is authorized without limitation or monitoring requirements.

C. Reopener Clause

- 1. This certification shall be modified to comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(23)(C) and (D), 304(b)(2) and 307(a)(2) of the Clean Water Act (the Act), as amended, if the effluent standard or limitation so issued or approved:
- a. Contains different conditions or is otherwise more stringent than any condition in the permit/or;
- b. Controls any pollutant not addressed in the certification. The certification, as modified under this paragraph shall contain any other requirements of the Act then applicable.
- 2. The certification may be reopened to adjust effluent limitations or monitoring requirements should future wasteload allocation determinations, water quality studies, DEP approved changes in water quality standards, or other information show a need for a different limitation or monitoring requirement.

D. Stormwater from Diked Petroleum Storage or Handling Area

The KUA is authorized to discharge stormwater from diked petroleum storage or handling areas, provided the following conditions are met:

- 1. The facility shall have a valid SPCC Plan pursuant to 40 CFR 112.
- 2. In draining the diked area, a portable oil skimmer or similar device or absorbent material shall be used to remove oil and grease (as indicated by the presence of a sheen) immediately prior to draining.
- 3. Monitoring records shall be maintained in the form of a log and shall contain the following information, as a minimum:
 - a. Date and time of discharge,
 - b. Estimated volume of discharge,
 - c. Initials of person making visual inspection and authorizing discharge, and
 - d. Observed conditions of storm water discharged.
 - 4. There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of a visible oil sheen at any time.

E. Operation and Maintenance Requirements

1. Operation of Treatment and Disposal Facilities

- a. The KUA shall ensure that the operation of this facility is as described in the application and supporting documents.
- b. The operation of the pollution control facilities described in this certification shall be under the supervision of a person who is qualified by formal training and/or practical experience in the field of water pollution control appropriate for those facilities.

2. Record-Keeping Requirements

The KUA shall maintain the following records on the site of the permitted facility and make them available for inspection:

- a. Records of all compliance monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, including, if applicable, a copy of the laboratory certification showing the certification number of the laboratory, for at least three years from the date the sample or measurement was taken;
- b. Copies of all reports, other than those required in item 1. above, required by the permit for at least three years from the date the report was prepared, unless otherwise specified by Department rule;
- c. Records of all data, including reports and documents used to complete the application for this certification at least three years from the date the application was filed, unless otherwise specified by Department rule;
 - d. A copy of the Site Certification;
 - e. A copy 6f any required record drawings;
- f Copies of the logs and schedules showing plant operations and equipment maintenance for three years from the date on the logs or schedule.

F. Compliance Schedule

The KUA shall achieve compliance on start of discharge.

G. Specific Conditions Applicable to All Permits

- Drawings, plans, documents or specifications submitted by the KUA, not attached hereto, but retained on file with the Department, are made a part hereof.
- 2. If significant historical or archaeological artifacts are discovered at any time within the project site, the KUA shall immediately notify the Department at the address shown in I B 3 above and the Bureau of Historic Preservation, Division of Historical Resources, R.A. Gray Building, 500 South Bronough, Tallahassee, Florida, 32399-0250.

- 3. Where required by Chapter 471 (P.E.) or Chapter 492 (P.G.) Florida Statutes, applicable portions of reports to be submitted under this certification shall be signed and sealed by the professional(s) who prepared them.
- 4. This certification satisfies industrial wastewater program permitting requirements only and does not authorize operation of this facility prior to obtaining any other permits required by federal agencies.

H. Duty to Reapply

This condition is not applicable under Site Certification.

I. Specific Conditions Related to Best Management Practices

The KUA shall comply with the Best Management Practices portion of the Cane Island Power Park Storm Water Pollution Prevention Plan (SWPPP).

- J. Specific Conditions Relating to Existing Manufacturing, Commercial, Mining, and Silviculture Wastewater Facilities or Activities
- 1. Existing manufacturing, commercial, mining, and silvicultural wastewater facilities or activities that discharge into surface waters shall notify the Department as soon as they know or have reason to believe: [62-6 20.624(1)]
- a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the certification, if that discharge will exceed the highest of the following levels:
 - (1) One hundred micrograms per liter
- (2) Two hundred micrograms per liter for acrolein and acrylonitrile; five hundred micrograms per liter for 2,4-dinitrophenol and for 2-methyl-4,6dinitrophenol; and one milligram per liter for antimony, or
- (3) Five times the maximum concentration value reported for that pollutant in the permit application.
- b. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following levels:
 - (1) Five hundred micrograms per liter;
 - (2) One milligram per liter for antimony; or
- (3) Ten times the maximum concentration value reported for that pollutant in the permit application.

XVIII. Groundwater

When required by Florida Administrative Code Chapter 62-701, the KUA shall file a Ground Water Monitoring plan within 180 days of being advised by the Department for review and approval by the Central District of the DEP.

XIX. Toxic, Deleterious or Hazardous Materials

A. Spills

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

B. Handling and Testing of Potentially Hazardous Material

The KUA shall continue to implement its current plan for handling and disposing of hazardous wastes.

XX. By-product and Solid Waste Storage

A. Solid Waste General

Any solid waste produced by the operation of the facility shall be disposed of in an approved disposal facility. By-products that are to be sold for reuse are not considered solid waste.

B. By-Product & Solid Waste Site Specific Standards

- 1. Any future by-product storage areas shall be designed, constructed, operated, maintained, closed and monitored in accordance with acceptable waste disposal practices providing environmental protection equivalent to those described in F.A.C. Chapter 62-701, or Chapter 62-673, as appropriate, and these conditions of Certification. The prohibitions of F.A.C. Chapter 62-701 shall not be violated.
- 2. All engineering plans, reports, and related information shall be provided by the engineer of record with professional certification and shall be approved by the Central District of the DEP prior to construction. A construction certification report signed and sealed by a professional engineer, and record drawings showing all modifications to construction plans, shall be submitted to the Central District office of the DEP prior to operation of each by-product or solid waste storage and disposal area.

XXI. Federal Operating Permits and Fees

A. DEP Responsibilities

The Department of Environmental Protection shall implement the provisions of Title V of the 1990 Clean Air Act and the NPDES program for the Cane Island Power Park developing conditions of certification requiring submission of annual operating permit information and annual pollutant emission fees in accordance with federal law and federal regulations and sections 403.0885, 403.0872, 403.5055, 403.509, and 403.511, F.S.

B. KUA Responsibilities

The KUA shall submit the appropriate annual operating information as well as the appropriate annual pollutant emission and NPDES fees as required by federal law to the Department.

XXII. Linear Facilities

Construction and operation of the proposed 230 KV transmission line or other future linear facilities shall be in conformance with Best Management Practices for linear facilities and with the provisions of Rule 62-814, Electric and Magnetic Fields. KUA shall provide a final ROW alignment and updated wetland impact information to the Central District Office of the DEP and to the South Florida Water Management District at least 90 days before the start of clearing of the ROW.

f. Construction, Operation, and Maintenance Responsibilities

The Permittee shall be responsible for the construction, operation, and maintenance of all facilities installed for the proposed project. Reference: Sections 373.309, 373.413(l) and 373.416(l), F.S.; Rules 40E-3.301,40E-4.091(l)(a), 40E-4.301(l), and 40E-4.381, F.A.C.

g. Access

SFWMD representatives shall be allowed reasonable escorted access to the power plant site, the water withdrawal facilities, and any associated linear facilities to inspect and observe any activities associated with the construction of the proposed project and/or the operation and/or maintenance of the on-site wells and/or the surface water management system and/or the mitigation areas in order to determine compliance with the conditions of this Certification. The Permittee shall not refuse entry or access to any SFWMD representative who, upon reasonable notice, requests entry for the purpose of the above noted inspection and presents appropriate credentials. Reference: Sections 373.223, 373.319, and 373.423, F.S.; Rules 40E-2.091(l), 40E-2.301, 40E-2.381, 40E-3.461, 40E-4.091(l)(a), and 40E-4.301, F.A.C.

h Post Certification Information Submittals

Information submitted to the SFWMD subsequent to Certification, in compliance with the conditions of this Certification, shall be for the purpose of the SFWMD determining the Permittee's compliance with the Certification conditions and the non-procedural criteria contained in Chapters 40E-2, 40E-3, and 40E-4, F.A.C., as applicable, prior to the commencement of the subject construction, operation and/or maintenance activity covered thereunder. Reference: Rule 62-17.191, F.A.C.

i. Post Certification Construction Notifications

At least 30 days prior to the commencement of construction, the Permittee or Project Engineer shall notify SFWMD staff in the Orlando Service Center Environmental Resource Compliance Division (using the appropriate SFWMD Form) of the actual or anticipated, construction start date and the expected completion date/duration of construction. Annual construction status reports shall be submitted by the Permittee to the SFWMD Environmental Resource Compliance Division (using the appropriate SFWMD Form) beginning one year after the initial construction start date. Reference: Sections 373.413(l) and 373.416(l), F.S.; Rules 40E-4.091(1)(a), 40E-4.301, and 40E-4.381(d)&(e), F.A.C.

j. Operation Authorization

Authorization for Unit 3 to begin operations shall not be granted by the Florida Department of Environmental Protection until it has received and approved an executed contract between the Permittee and an entity capable of receiving and disposing of any waste products generated by the proposed facility. Reference: Sections 373.043 and 403.504, F.S.

k. Enforcement

The SFWMD may take any and all lawful actions that are I necessary to enforce any condition of this Certification based on the authorizing statutes and rules of the SFWMD. Prior to initiating such action, the SFWMD shall notify the Secretary of DEP of the proposed action. Reference: Sections 373.223, 373.319,

373.423, and 373.603, F.S.; Rules 40E-2.091(l), 40E2.301, 40E-2.381, 40E-3.461, 40E-4.091(l)(a), and 40E-4.301, F.A.C.

Existing Surface Water Management Permit

Surface Water Management Permit No. 49-00672-S is incorporated herein only insofar as such conditions and terms are applicable to the activities approved in this Certification. Such pen-nit shall remain in full force and effect for activities approved in the permit that are not authorized within this Certification.

2. Processing of Informational Requests

a. Completeness and Sufficiency Review

At least ninety (90) days prior to the commencement of construction of any portion of the project, the Permittee shall submit to SFWMD staff, for a completeness and sufficiency review, any pertinent additional information required under the SFWMD's conditions of Certification for that portion proposed for construction. If SFWMD staff does not issue a written request for additional information within thirty (30) days, the information shall be presumed to be complete and sufficient. Reference: Section 373.413(2), F.S.

b. Compliance Review and Confirmation

Within sixty (60) days of the determination by SFWMD staff that the additional information is complete and sufficient, the SFWMD shall determine and notify the Permittee in writing whether the proposed activities conform to SFWMD rules, as required by Chapters 40E 2, 40E-3, and 40E-4, F.A.C., and the Conditions of Certification. If necessary, the SFWMD shall identify what items remain to be addressed. No construction activities shall begin until the SFWMD has determined either in writing, or by failure to notify the Permittee in writing, that the activities are in compliance with the applicable SFWMD criteria. Reference: Sections 373.413(l) and (2), F.S.

c. Revisions to Site Specific Design Authorizations

The Permittee shall submit, consistent with the provisions of Condition A.2., any proposed revisions to the site specific design authorizations specified in this Certification to the SFWMD for review and approval prior to implementation. The submittal shall include all the information necessary to support the proposed request, including detailed drawings, topographic maps, average wet season water table elevations, calculations and/or any other applicable data. Such requests may be included as part of the appropriate additional information submittals required by this Certification provided they are clearly identified as a requested modification to the previously authorized design. Reference: Sections 373.413 and 373.414, F.S.; Rules 40E2.091, 40E-2.301, 40E-4.301, and 40E-4.381, F.A.C.

d. Dispute Resolution

Since this Certification is the only form of permit required from any agency, it is understood that the Permittee and the SFWMD shall strive to resolve disputes by mutual agreement. Reference: Sections 373.413 and 373.429, F.S.; Rules 40E-1.601 and 40E-4.331, F.A.C.

e. Objections

Objections to modifications of the terms and conditions of this Certification shall be resolved through the process established in Section 403.516, F.S.

f Changes to Information Requirements

The SFWMD and the Permittee may jointly agree to vary the informational requirements. Reference: Sections 373.085, 373.229, and 373.413(2), F.S.; Rules 40E-2.101(1), 40E-3.101(2), and 40E-4. 101(1), F.A.C.

B. Water Use Conditions

1. General

a. Water Shortage Compliance

In the event of a declared water shortage, the Permittee must comply with any water withdrawal reductions ordered by the SFWMD in accordance with the Water Shortage Plan, Chapter 40E-21, F.A.C. Reference: Section 373.246, F.S.; Rule 40E-2.381, F.A.C.

b. Impacts on Existing Legal Users

The Permittee shall mitigate any adverse impact on existing legal uses caused by the ground water withdrawals authorized by this Certification. When adverse impacts occur or are imminent, the SFWMD reserves the right to curtail future withdrawal rates pursuant to the enforcement provisions of Condition A.1.k of these conditions. The adverse impacts can include:

- (1) A reduction in well water levels that impairs the ability of an adjacent well, including a domestic well, lawn irrigation well, or public water supply 'well, to produce by 10% or greater;
- (2) A significant reduction in water levels in an adjacent water body such as a lake, pond, wetland, or canal system that impairs the ability to produce water by 10% or greater;
- (3) Saline water intrusion or induced movement of pollutants into the water supply of an adjacent water user, resulting in a significant reduction in water quality; and/or
- (4) A change in water quality caused by the Permittee that results in significant impairment or loss of use of a well or water body.

Reference: Section 373.223, F.S.; Rules 40E-2.091(I), 40E-2.301, and 40E-2.381, F.A.C.

c. Impacts on Existing Off-Site Land Uses

The Permittee shall mitigate any adverse impacts on existing off-site land uses as a consequence of the groundwater withdrawals authorized by this Certification. If increased withdrawals cause an adverse impact on existing land uses, the SFWMD reserves the right to curtail future withdrawal rates pursuant to the enforcement provisions of Condition A.1.k of these conditions. Adverse impacts can include:

(1) A significant reduction in water levels in an adjacent water body, including impoundments, to the extent that the designed function of the water body is impaired;

- (2) Land collapse or subsidence caused by a reduction in water levels; and/or
- (3) Damage to crops and other types of vegetation.

Reference: Sections 373.223, F.S.; Rules 40E-2.091(l), 40E-2.301, and 40E-2.381, F.A.C.

d. Impacts to Natural Resources

The Permittee shall mitigate any adverse impacts to natural resources as a consequence of the groundwater withdrawals authorized by this Certification. When adverse impacts occur, or are imminent, the SFWMD reserves the right to curtail future withdrawal rates pursuant to the enforcement provisions of Condition A.l.k of these conditions. Adverse impacts can include:

- (1) A reduction in ground water levels that results in significant lateral movement of the fresh water/salt water interface:
- (2) A reduction in water levels that adversely impacts the hydroperiod of protected wetland environments;
- (3) A significant reduction in water levels or hydroperiod in a naturally occurring water body such as a lake or pond;
- (4) Induced movement or induction of pollutants into the water supply resulting in a significant reduction in water quality; and/or
- (5) Harm to the natural system including damage to habitat for rare or endangered species.

Reference: Sections 373.223, F.S.; Rules 40E-2.091(l), 40E-2.301, and 40E-2.381, F.A.C.

e. Well System Operation

At any time, if there is an indication that the well casing, valves, or controls associated with the on-site backup well system leak or have become inoperative, the Permittee shall be responsible for making the necessary repairs or replacement to restore the well system to an operating condition acceptable to the SFWMD. Failure to make such repairs shall be the cause for requiring that the well(s) be filled and abandoned in accordance with the procedures outlined in Chapter 40E-3 (Water Wells), F.A.C. Reference: Sections 373.308 and 373.316, F.S.; Rules 40E-3.041, 40E-3.101, 40E-3.41 1, and 40E-3.500-53 1, F.A.C.

2. Site Specific Design Authorizations

a. Authorized Daily Withdrawals

When Units 1, 2 and 3 are operating under normal operating conditions on the primary fuel supply (natural gas), this Certification authorizes a maximum daily withdrawal of 0.22 MGD from the Floridan aquifer for potable water, service water, and process water. When Units 1 and 2 are operating on the backup fuel supply (No.2 oil), this Certification authorizes a maximum daily withdrawal of 0.55 MGD for a maximum of 12 days per

year. When Units 1, 2 and 3 are operating on backup (No. 2 oil) fuel supply, this certification authorizes a maximum daily withdrawal of 0.78 MGD for a maximum of 30 days per year.

b. Emergency Cooling Tower Makeup Water

This certification authorizes a maximum daily withdrawal of 2.865 MGD from the Florida Aquifer for emergency cooling tower makeup water for a period not to exceed 30 days per year. Withdrawals in excess of 30 days per year shall require prior written approval from SFWMD's Water Use Division. These withdrawals shall only occur during those times when reclaimed water supply from the City of Kissimmee is temporarily interrupted.

c. Authorized Annual Withdrawals

This Certification authorizes a maximum annual withdrawal of 186.8 MGY from the Floridan Aquifer for potable water, service water, and process water. This authorization includes the emergency cooling tower makeup water for a maximum 30 days, operation of Units 1 and 2 on the backup fuel (No. 2 oil) for a maximum of 12 days, and operation of Units 1, 2 and 3 on the backup fuel (No. 2 oil) for a maximum of 30 days.

d. Authorized Withdrawal Facilities

2 - 6" X 400'X 200 GPM wells cased to 150 feet

4 - 6" X 400'X 450 GPM wells cased to 150 feet.

e. Modification of Authorized Withdrawals

Within five years of Certification and every five years thereafter, unless extended by mutual agreement between the Permittee and the SFWMD, the Permittee shall submit to the SFWMD a report on the projects consumptive water use which contains the information required by Chapter 40E-2, F.A.C. in effect at that time. Within 90 days after receipt of the completed report, the SFWMD shall evaluate the information contained therein and issue a written notification to the Department and the Permittee as to whether the groundwater withdrawals for consumptive use authorized by this Certification remain in compliance with the provisions of Chapter 373, F.S., and Chapter 40-2, F.A.C., in effect at that time. If the notification indicates that the withdrawals are not in compliance with these provisions, it shall recommend possible alternatives for bringing the withdrawals into compliance or otherwise meeting the minimum consumptive water use needs of the Certified project. If mutual agreement cannot be reached within 90 days after issuance of the written notification on whether the withdrawals of groundwater for consumptive use remain in compliance, then the written notification shall be immediately referred to the Division of Administrative Hearings (DOAH) for resolution in accordance with the procedural provisions of Sections 403.516(l)(c) and 120.569, F.S. (1997).

f. Right to Petition for Modification of Withdrawals

The SFWMD retains the right to petition for a modification of the groundwater withdrawals for consumptive use authorized by this Certification, in accordance with the provisions of Section 403.516, F.S. (1996). Any request for an increase in water withdrawals shall be made pursuant to the provisions of Section 403.516, F.S.

g. Dewatering Operations

Prior to the commencement of construction of those portions of the project which involve dewatering activities, the Permittee shall submit a detailed plan for the proposed dewatering activities to the SFWMD, consistent with the provisions of Conditions A.2, for a determination of compliance with the non-procedural requirements of Chapter 40E-2, 40E-3, 40E-4, and 40E20, F.A.C., in effect at the time of submittal. The following information, referenced to NGVD where appropriate, shall be submitted:

- (1) A detailed site plan which shows the location(s) for each proposed dewatering area;
 - (2) The method(s) used for each dewatering operation;
 - (3) The maximum depth for each dewatering operation;
- (4) The location and specifications for all proposed wells and/or pumps associated with each dewatering operation;
 - (5) The duration of each dewatering operation:
- (6) The discharge method, route, and location of receiving waters generated by each dewatering operation, including the measures (Best Management Practices) that will be taken to prevent water quality problems in the receiving water(s):
- (7) An analysis of the impacts of the proposed dewatering operations on any existing on and/or off-site legal users, wetlands, or existing groundwater contamination plumes;
 - (8) The location of any infiltration trench(es) and/or recharge barriers; and
- (9) All plans must be signed and sealed by a Professional Engineer or a Professional Geologist registered in the State of Florida.

Reference: Sections 373.229, 373.308, and 373.413, F.S.; Rules 40E-2.091(I), 40E2.301, 40E-3.500-53 I, and 40E-4.3 8 I (1)(m), F.A.C.

h. Reporting Requirements

The Permittee shall maintain records of the calibrated daily withdrawals from each pump. These records shall be available for review upon request by District staff. Monthly withdrawals for each pump shall be submitted to the District quarterly. Maximum daily withdrawals for each month for the entire system shall be submitted to the District quarterly. The water accounting method and means of calibration shall be stated on each report. Every two years from the date of Certification, the Permittee shall submit re-calibration data on each water pumping accounting facility if the accounting method(s) require re-calibration. Reference: Section 373.223, F.S.; Rules 40E-2.091(l), 40E-2.3 0 1, and 40E-2.381, F.A.C.

i. Existing Well Repair, Replacement, Abandonment

If any of the existing on-site wells require repair, replacement, and/or abandonment in the future, the Permittee shall submit the information described in Chapter 40E-3, F.A.C. for review by the SFWMD prior to initiating such activities. Reference: Sections 373.308 and 373.3 16, F.S.; Rules 40E-3.041, 40E-3.101, 40E-3.41 1, and 40E-3.500-53 1, F.A.C.

j. New Well Construction

Prior to construction of the proposed on-site wells, the Permittee shall submit the drilling plans and other pertinent information required by Chapter 40E-3, F.A.C. to the SFWMD for review and approval. If the final well locations are different from those originally proposed in the certification application, the Permittee shall also submit to the SFWMD for review and approval an evaluation of the impacts of the proposed pumpage from the proposed well location(s) on adjacent existing legal users, pollution sources, environmental features, and water bodies. Reference: Section 373.223, F.S.; Rules 40E-2.091(l), 40E-2.301, and 40E-2.381, F.A.C.

k. Water Conservation Plan

Within two (2) years of the date of Certification, the Permittee shall submit a Water Conservation Plan required by Chapter 40E-2, F.A.C., in effect at that time, for review and approval by SFWMD staff. The plan shall, at a minimum, incorporate the following components:

An audit of the amount of water needed in the Permittee's operational processes. The following measures shall be implemented within one year of audit completion if found to be cost effective in the audit:

- (1) Implementation of a leak detection and repair program;
- (2) Implementation of a recovery/recycling or other program providing for technological, procedural or programmatic improvements to the Permittee's facilities; and
 - (3) Use of processes to decrease water consumption.

Development and implementation of an employee awareness program concerning water conservation. Reference: Sections 373.223, F.S.; Rules 40E-2.091(l), 40E-2.301, and 40E2.3 8 1, F.A. C.

C. Surface Water Management Conditions

1. General Conditions

a. Professional Engineer Certificate

The operation of the surface water management system authorized under this Certification shall not become effective until a Florida Registered Professional Engineer certifies, upon completion of each phase, that these facilities have been constructed in accordance with the design approved by the SFWMD. Within 90 days after completion of construction of the surface water management system, the Permittee or authorized agent shall submit the engineer's certification and notify SFWMD staff in the Orlando Service Center Environmental Resource Compliance Division that the facilities are ready for inspection and approval. As part of such notification, the Permittee or authorized agent shall submit as-built drawings of the site. The as-built drawings shall include elevations, locations, and dimensions of components of the surface water management system. Reference: Sections 373.117 and 373.419, F.S.; Rules 40E-4.091(1)(a), 40E-4.301(1), and 40E-4.381(1)(f), F.A.C.

b. Impacts on Fish, Wildlife, Natural Environment Values and Water Quality

The Permittee shall prosecute the work authorized under this Certification in a manner so as to minimize any adverse impacts of the authorized works on fish, wildlife, natural environment values, and water quality. The

Permittee shall institute necessary measures during the construction period, including necessary compaction of any fill materials placed around newly installed structures and/or the use of silt screens, hay bales, seeding and mulching, and/or other similar techniques, to reduce erosion, turbidity, nutrient loading and sedimentation in the receiving waters. Reference: Sections 373.413(l) and 373.416(l) F.S.; Rules 40E4.091(l)(a), 40E-4.30 1, and 40E4.38 1, F.A.C.

c. Access Roads

The Permittee shall, whenever available, utilize adjacent existing roads for access to the transmission line right-of-way for construction, operation and/or maintenance purposes. Finger roads connecting the existing roads to the structure pads and access roads which must be constructed in areas where an existing road is not available shall be constructed in a manner which does not impede natural drainage flows and minimizes impacts to on-site and adjacent wetlands. Reference: Sections 373.413(l), 373.414, 373.416(l); Rules 40E-4.301 and 40E-4.381, F.A.C.

d. Discharge Structures

Discharge structures, where appropriate, shall include a baffle, skimmer, or other mechanism suitable for preventing oil, grease, or other floatable materials from discharging to and/or from retention/detention areas. Reference: Sections 373.413(l), and 373.416(l), F.S.; Rules 40E-4.091(1)(a), 40E-4.301, and 40E-4.381, F.A.C.

e. Off-Site Discharges

Off-site discharges during construction and development shall be made only through the discharge facilities authorized by this Certification. No roadway or structure pad construction shall commence on-site until completion of the permitted discharge structure and detention areas. Water discharged from the project shall be through structures having a mechanism suitable for regulating upstream water stages. Stages may be subject to operating schedules satisfactory to the SFWMD. Reference: Sections 373.413(I) and 373.416(I), F.S.; Rules 40E 4.091(I)(a), 40E-4.301, and 40E-4.381, F.A.C.

f. Correction of Water Quality Problems

The Permittee shall be responsible for the correction of any sedimentation, turbidity, erosion, shoaling and/or other water quality problems that result from the construction, operation, and/or maintenance of the works authorized under this Certification. Reference: Sections 373.413(l) and 373.416(l); Rules 40E-4.091(l)(a), 40E-4.301, and 40E-4.381, F.A.C.

g. Additional Water Quality Requirements

The Permittee may be required to incorporate additional water quality treatment methods into the surface water management system if such measures are shown to be necessary. Reference: Sections 373.413(l), and 373.416(l); Rules 40E-4.091(l)(a), 40E-4.301, and 40E-4.381, F.A.C.

h. Dike Designs for Minor Impoundments

Dike designs for minor impoundments shall be in accordance with commonly accepted engineering principles and State laws. Side slopes shall be no steeper than 2:1 (horizontal to vertical) and top widths no less

than five feet. Reference: Sections 373.413(I), 373.414, and 373.416(I); Rules 40E-4.301 and 40E-4.091(I)(a), F.A.C., including Appendix 6.

i. Minimum Freeboard for Minor Impoundments

The minimum freeboard for minor impoundments above the maximum water depth shall be equal to the maximum water depth dimensions but not less than two feet nor more than three feet. Reference: Sections 373.413(l), 373.414, and 373.416, F.S.; Rules 40E-4.301 and 40E4.091(1)(a), F.A.C., including Appendix 6.

i. Modifications

Subsequent modifications to the drawings and supporting calculations submitted to the SFWMD which may alter the quantity and/or quality of waters discharged off-site shall be made pursuant to Section 403.516, F.S., and Rule 62-17.211, F.A.C. They shall also be submitted to the SFWMD for a determination that the modifications are in compliance with the nonprocedural requirements of Chapters 40E-2 and 40E-4, F.A.C., prior to the commencement of construction. Reference: Section 403.516, F.S.

2. Site Specific Design Requirements

a. Design Storm Event

The Design storm event shall be the 10 year/72 hour storm event for peak discharge, the 10 year/24 hour storm event for minimum road and parking lot elevations, and the 100 year/72 hour storm event for minimum finish floor elevations.

b. Water Quality Treatment

Water quality treatment shall be provided for the greater of the first inch of runoff or 2.5 inches times the percentage of impervious coverage.

c. Wet Detention Ponds

Wet detention ponds shall comply with minimum District area and dimensional criteria as measured at the normal control elevation.

d. Wetland Discharges

Discharges to wetlands shall be via a spreader swale sized to reduce discharge velocities to non-erosive rates. Reference: Sections 373.413 and 373.414, F.S.; Rules 40E-4.091, 40E4.301, and 40E-4.3 8 1, F.A.C.

3. Additional Information Requirements

a. Expansion Area Construction Plans

Prior to the commencement of construction of any portion of the proposed project within the expansion area, all construction activities for that portion of the proposed project that may obstruct, divert, control, impound or cross water's of the state must be reviewed by the SFWMD for a determination of compliance with Chapters 40E-2 and 40E-4, F.A.C. All plans, documents, and calculations shall be signed and sealed by a

Professional Engineer registered in the State of Florida. For all construction activities, the following information shall be submitted:

- (1) If control elevations are revised for any portion of the proposed surface water management system, revised soil storage calculations;
- (2) Detailed plans of all proposed roads, parking lots and building pads which demonstrate compliance with Osceola County and SFWMD flood protection criteria;
- (3) Cross-sections of all proposed control structures which demonstrate compliance with SFWMD water quality and quantity criteria. Reference: Sections 373.413(l), 373.413(2), and 373.416(l), F.S.; Rules 40E-4.091(l)(a), 40E-4.301, and 40E-4.381, F.A.C.

b. Transmission Line Construction Plans

Prior to the commencement of construction of any portion of the proposed transmission line, all construction activities for that portion of the transmission line which may obstruct, divert, control, impound, or cross waters of the state either temporarily or permanently, must be reviewed by the SFWMD for a determination of compliance with Chapters 40E-2 and 40E-4, F.A.C. "Construction activities" in this situation shall include the placement of structure pads, access/maintenance roads, culverts, and/or fill materials, excavation activities, and related activities. All plans, documents, and calculations shall be signed and sealed by a Professional Engineer registered in the State of Florida. For all construction activities, the following information shall be submitted:

- (1) A centerline profile of existing topographic features along the proposed access/maintenance road(s);
- (2) A preliminary design of the proposed access/maintenance and finger road(s)with elevations marked;
- (3) A typical cross-section of the proposed access/maintenance and finger road(s);
- (4) Specifications showing the location of each transmission tower, finger and access/maintenance road, culvert, and/or other related structure or facility to be constructed, including all areas to be filled or excavated;
- (5) Specifications, including supporting assumptions and calculations, showing the type and size of water control structures (pipe, culvert, equalizer, etc.) to be used, with proposed flowline elevations marked, drainage areas identified and design capacity verified;
- (6) A cross-section of all proposed excavation areas showing the proposed depth of excavation;
- (7) Calculations and the supporting documentation which demonstrate compliance with all applicable criteria, particularly as they relate to allowable discharge;

- (8) Identification of wet season water table elevations for each basin in which facilities will be located;
- (9) Calculations and supporting documentation which demonstrate that the proposed construction activities associated with the transmission line will not have an adverse water quantity and/or water quality impact on existing and/or permitted surface water management systems;
- (10) If construction of the proposed transmission line contributes to the necessity for future modifications to adjacent/existing roads, water quality treatment for the requested modifications must be addressed in the surface water management system design for the transmission line.

Reference: Sections 373.413(l), 373.413(2), and 373.416(l), F.S.; Rules 40E-4.091(1)(a), 40E-4.301, and 40E-4.381, F.A.C.

c. Surface Water Quality Monitoring Program

- (1) Within three months of issuance of this Certification, the Permittee shall submit for review and approval by the SFWMD, a surface water quality monitoring program which monitors all off-site discharges from the surface water management system into the on-site wetlands.
 - (2) While the program may incorporate additional monitoring requirements and parameters required by other agencies, it shall include the following parameters and time frames at a minimum:

SCHEDULE

PARAMETERS

A.	General	(Every	Other	Month)

Total Organic Carbon, Dissolved Oxygen, pH, Turbidity, Specific Conductance, Chemical Oxygen Demand, Total suspended Solids, and Alkalinity.

B. Organics (Semi-annual)

Oil and Grease, Detergents, Epa Methods 601 and 602.

C. Metals (Semi-annual)

Aluminum, Antimony, Arsenic, Beryllium, Cadmium, Copper, Cyanide, Iron, Lead, Mercury, Nickel, Selenium, Silver, and Zinc.

(3) Water quality samples shall be taken at the above noted locations in accordance with the above schedule during periods of discharge. The Permittee shall provide such data to the SFWMD as volumes of water discharged, including total volume discharged during the days of sampling, and total discharges from the property or into surface waters of the state. A laboratory certified by the State of Florida shall be responsible for all water quality analysis under (1)B and (1)C above. Reports shall be submitted to the SFWMD on a semi-annual basis. Initial sampling results shall be reported to the SFWMD no later than six

months following the issuance of this Certification.

(4) The SFWMD will evaluate monitoring requirements to determine whether the discharge degrades receiving waters and conforms to State water quality standards as defined in Chapter 62-17.302, F.A.C. If water quality problems develop, the SFWMD reserves the right to require more frequent sampling and more thorough analyses in order to provide assurances that the discharges will not cause additional off-site water quality impacts.

Reference: Section 373.413(l), 373.413(2), and 373.416(l), F.S.; Rules 40E-4.091(l)(a), 40E-4.301, and 40E-4.381, F.A.C.

d. Hazardous Materials Management

Prior to the commencement of construction of this project, the Permittee shall submit a copy of the Comprehensive Hazardous Materials and Waste Management Plan for the Cane Island Power Park to the SFWMD for a determination of compliance with the requirements of Chapter 40E-4, F.A.C. The plan shall provide an adequate level of detail for early warning and detection of hazardous materials within the shallow groundwater. At a minimum, the plan shall include a groundwater monitoring network (including proposed up-gradient and down-gradient locations of monitoring, wells) and shall be prepared by a hydrogeology consultant. The plan shall provide an adequate level of detail for early warning and detection of hazardous materials within the shallow groundwater. Reference: Section 373.413(l), 373.413(2), and 371.416(l), F.S.; Rules 40E-4.091(l)(a), 40E-4.301, and 40E-4.381, F.A.C.

D. Environmental Conditions

1. General

a. Wetland Avoidance

The Permittee shall avoid impacting wetlands within the power plant site and transmission line corridor wherever practicable. Where necessary and feasible, the location of the facilities shall be varied to eliminate or reduce wetland impacts. Reference: Sections 373.413(i), 373.414, and 373.416(i) F.S.; Rules 40E-4.09 I (1)(a), 40E-4-301, and 40E-4.38 1, F.A.C.

b.. Fill Materials

No fill materials shall be obtained from excavated wetlands within the project site, unless in accordance with a mitigation plan submitted in compliance with the conditions of this Certification. Reference: Sections 373.413(1), 373.414, and 373.416(1) F.S.; Rules 40E-4.091(1)(a), 40E-4.301, and 40E-4.381, F.A.C.

c. Additional Wetlands Mitigation

The Permittee may be required to provide additional mitigation and/or other measures if wetland and/or upland monitoring and/or other information demonstrates that adverse impacts to protected, restored, conserved, incorporated, and/or mitigated wetlands have occurred as a result of project-related activities. Reference: Sections 373.413, 373.414, and 373.416, F.S.; and Rules 40E-4.091, 40E-4.301, and 40E-4.381, F.A.C.

d. Additional Environmental Review

The Permittee shall submit any proposed changes in land use, project design, and/or the treatment of on-site wetlands for additional environmental review in order to determine whether any additional mitigation activities will be required. Reference: Sections 373.413, 373.414, and 373.416, F.S.; and Rules 40E-4.091, 40E-4.301, and 40E-4.381, F.A.C.

2. Additional Information Requirements

a Wetlands Protection

Prior to the commencement of construction of any facilities located adjacent to the wetlands identified for preservation, the Permittee shall:

- (1) Field stake and rope off the perimeter of the protected wetlands and buffer zones to prevent encroachment into the wetlands. The Permittee shall notify the SFWMD's Environmental Compliance staff in writing upon completion of roping and staking, and schedule an inspection of this work. The staking and roping shall be subject to SFWMD staff approval. The Permittee shall modify the staking and roping if SFWMD staff determines it is insufficient or is not in conformance with the intent of this Certification. Staking and roping shall remain in place until all adjacent construction activities are complete; and
- (2) Install silt screens, hay bales or other such sediment control measures during construction. The selected sediment control measures shall be installed landward of the upland buffer zones around all protected wetlands. All areas shall be stabilized and vegetated immediately after construction to prevent erosion into the wetlands and upland buffer zones.

Reference: Sections 373.413, 373.414, and 373.416 F.S.; Rules 40E-4.091, 40E4.301, and 40E-4.381, F.A.C.

b. Preserved Wetlands Monitoring Plan

Prior to the commencement of construction, the Permittee shall submit to the SFWMD for review and approval, a monitoring plan designed to document the condition of the wetlands designated for preservation/enhancement on the project site. This plan may be part of a monitoring program designed to document the condition of all preserved on-site areas. However, at a minimum, the plan shall include the following:

- (1) Provisions for both quantitative and qualitative observations of wildlife and macro invertebrate utilization;
 - (2) Monthly water level readings;
 - (3) Panoramic photographs documenting the condition of the wetlands;
 - (4) An evaluation of the success of the preservation/enhancement effort; and
 - (5) An annual report which includes the above and any other relevant

information.

Reference: Sections 373-413(l), 373.413(2), 373.414 and 373.416(l) F.S.; Rules 40E4.091(l)(a), 40E-4.301, and 40E-4.381, F.A.C.

c. Transmission Line Wetland Impacts

Prior to the construction of any portion of the proposed transmission line, the details of the proposed wetland impacts must be submitted to the SFWMD for a determination of compliance with Chapters 40E-2 and 40E-4, F.A.C. All plans, documents, and calculations shall be signed and sealed by a Professional Engineer registered in the State of Florida. For all activities, the following information shall be submitted:

- (1) Specific acreage figures, locations, and jurisdictional limits of all wetlands, both within the transmission line right-of-way and adjacent to it, impacted by the proposed construction activities, including an explanation as to why there are no feasible alternatives to the proposed design if wetland impacts are unavoidable;
- (2) Identification of all proposed clearing activities, both horizontal and vertical;
- (3) Aerial photographs, at a minimum scale of 1"=200', which show the locations of the proposed facilities/alignments and all of the wetlands, including those within and adjacent to the project site and the access road right-of-way that would be impacted by the proposed construction activities;
- (4) Design drawings showing the plan view and cross-sectional details for the proposed crossing of Reedy Creek, including the wetland limits, the creek channel limits, the normal high water elevation, and seasonal high water elevation; and
- (5) Documentation that the proposed excavation activities will not adversely impact off-site wetlands.

Reference: Sections 373.413(l),373.413(2), 373.414, and 373.416(l) F.S.; Rules 40E4.091(1)(a), 40E-4.301, and 40E-4.381, F.A.C.

d. Transmission Line Mitigation Plan

Prior to the construction of any portion of the proposed transmission line, a mitigation plan to offset any wetland impacts associated with the proposed transmission line must be submitted to the SFWMD for a determination of compliance with Chapters 40E-2 and 40E-4, F.A.C. The plan shall include the following:

- (1) A discussion of the proposed mitigation activities to be undertaken, including the location of all mitigation areas and a description of the manner in which these areas will be created, restored or otherwise enhanced:
- (2) A timetable for accomplishing the proposed mitigation activities concurrently with the construction of the transmission line and any associated wetland impacts, unless documentation for doing otherwise is submitted and approved in writing prior to the commencement of construction;

- (3) A detailed monitoring and maintenance program designed to ensure the survival and success of any created, restored, or enhanced wetlands, which is predicated on a guaranteed survival or coverage of 80% of the appropriate wetland vegetation. At a minimum, the monitoring plan shall be conducted for a period of 5 years, with reports submitted to SFWMD staff annually, and all monitoring stations identified on a plan view; and
- (4) A letter requesting deduction of mitigation credits from the mitigation credit account established under Surface Water Management Permit No. 49-00672-S. The letter shall include a complete list of the applicant's names, application numbers and credits withdrawn of each of the previously-issued permits for which credits were withdrawn to offset adverse wetland impacts. In addition, the letter shall include the applicant's name, project name, application number and number of credits for which application is made to deduct under the current application. The letter shall also include the subtotal of credits remaining prior to the applied for deduction and the total remaining credits subsequent to the proposed deduction. The SFWMD's construction authorization letter will acknowledge and confirm the remaining balance of available credits after the proposed and approved deduction.

Reference: Sections 373.413(l), 373.413(2), 373.414, and 373.416(l) F.S.; Rules 40E-4.091(l)(a), 40E-4.301, 40E-4.331(2)(b), and 40E-4.381, F.A.C.

3. Water Supply and Development

- a. All process, service, and potable water requirements (except for cooling tower makeup water) will be supplied by the two existing and four proposed onsite wells. The wells withdraw from the Floridan aquifer. The two existing wells are currently permitted under SFWMD Water Use Permit 49-0067 1 -W with an annual allocation of 74.8 million gallons (MG), and a maximum daily allocation of 0.26 MG. With the addition of Unit 3 to the Power Park, the estimated total usage of ground water is 0.22 MGD under normal operating conditions using the primary fuel (natural gas) and up to 0.78 MGD when additional process water is required for control of nitrogen oxides associated with the use of the backup fuel (No. 2 oil).
- b. The maximum daily allocation from the Floridan aquifer wells, under normal operating conditions, is 0.22 MG. The annual allocation from the Floridan aquifer wells, emergency cooling tower makeup water and the additional process water required for the use of the backup fuel (No. 2 oil), is 186.8 MG.
- c. Cooling tower makeup water will be obtained from the City of Kissimmee reclaimed water pipeline. The cooling tower makeup water requirement is 2.9 MGD with all units at full load. During those times when reclaimed water is unavailable (due to treatment plant breakdowns, reclaimed water conveyance line breaks, etc.), the backup water supply will be from the six Floridan aquifer wells. This use will be on an emergency basis, pending the repair of the reclaimed supply system. These interruptions are not expected to exceed 30 days per year.
- d. The applicant has indicated that the construction of the neutralization basin and the oil-water separator will require temporary dewatering for a period of up to four months. The applicant estimates that the dewatering volume will be less than I MGD and has proposed the use of a wellpoint system with the dewatering water being discharged into the existing surface water management system. Staff agrees with the applicant that the potential for adverse impacts resulting from the proposed dewatering activity is minimal.

Surface Water Management

- a. Prior to the commencement of construction, detailed paving, grading and drainage plans must be provided which specify the final locations of the proposed water management areas, indicate the on-site and perimeter site grade, and confirm the internal routing of surface water discharges within the project site as well as the location of the proposed discharge facilities to Reedy Creek Swamp.
- b. Prior to the commencement of construction, final control elevations and supporting calculations, certified by a Florida Registered Professional Engineer must be provided. Supporting plans and detail sheets, including cross-sections of the proposed control structures, shall demonstrate compliance with the SFWMD's water quality and quantity criteria.
- c. Prior to the commencement of construction, final calculations must be provided which confirm that the roads and buildings planned as part of this project will meet the 10 year/1 day and 100 year/3 day design storm events, respectively.
- d. Prior to the commencement of construction, a detailed drainage analysis of the contributing drainage area and culvert sizing calculations shall be submitted for all culvert crossings of the transmission line access/service roadway.

6. Wetlands Impact and Mitigation

- a. Mitigation is required to offset 1.8 acres of direct, permanent dredge and fill impacts and 12.9 acres of hand clearing, light track shear-machine clearing, and topping in mixed hardwood and cypress strand forest. Mitigation to offset the above-described impacts will be partially accomplished through the hydrologic enhancement of approximately 3 acres of cypress. A 3-acre lobe of a strand system has been historically severed from the downstream portion by the establishment of a ditched and bermed access trail. A hydrologic connection will be re-established with the installation of culverts and filling of the ditches that run parallel to the trail. These activities are estimated to offset I acre of direct impact.
- b. In addition to the above described enhancement activities, 1.6 credits (to offset the remaining 0.8 acre of direct impact), and 6.45 credits (to offset the 12.9 acres of hand-clearing and topping impacts) will be deducted from the mitigation credit account established under previous permitting, thus leaving a balance of 36.95 credits.
- c. A letter requesting deduction of the credits shall be submitted by the Permittee and approved by the SFWMD prior to initiation of construction.

XXIV. DEPARTMENT OF COMMUNITY AFFAIRS

A. Hurricane Preparation Plan

KUA and FMPA shall develop a comprehensive hurricane preparation and recovery plan for the Cane Island Power Park. The plan shall be submitted to the Department of Community Affairs and the Osceola County Office of Emergency Management no later than commencement of construction for Unit 3. KUA and FMPA shall formally update the plan every 5 years following commercial operation of Unit 3 or whenever an additional power generating unit is brought into commercial service at the Power Park and shall submit these updated versions of the plan to the Department of Community Affairs and the Osceola County Office of Emergency Management.

B. Plan Compliance

If the Department of Community Affairs deems the plan or any of its periodic updates not to be in compliance with the requirements of this condition, it may petition for enforcement of this condition pursuant to the Florida Electrical Power Plant Siting Act.

XXV. DEPARTMENT OF TRANSPORTATION

A. Access to State Highways

Access Management to the State Highway System: No new access to the State Highway System is proposed in the site certification application. If new access is later proposed, access permitting as defined in Rule Chapters 14-96, State Highway System Connection Permits, Administrative Process, and 14-97, Access Management Classification System and Standards, Florida Administrative Code, will be required.

B. Historical or Cultural Resources

The applicant will ensure that the weights and heights of construction and/or tanker trucks will not exceed the limits for the SR 600 bridge over Reedy Creek (which has been determined to have cultural value) and the South Orange Blossom Trail Bridge (which has been determined to have historical value). If any overweight or overdimensional vehicles are operated by the applicant, the applicant shall comply with the appropriate provisions of Sections 316.535 and 316.550, Florida Statutes, and Rule Chapter 14-26, Safety Regulations and Permitting Fees for Overweight and Overdimensional Vehicles, Florida Administrative Code, including submission of information and fees.

C. Transmission Line Construction

If any use of State of Florida right-of-way or transportation facilities is later proposed, such usage will be subject to the requirements of the Department of Transportation's Utility Accommodation Guide, Rule Chapter 14-46, Railroad/Utility Installation or Adjustment, Florida Administrative Code.

D. BEST MANAGEMENT PRACTICES

1. It is recommended that the applicant encourage transportation demand management techniques by doing the following: Placing a bulletin board on site for car pooling advertisements. Requiring that



Department of Environmental Protection

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

David B. Struhs Secretary

November 15, 1999

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Tim M. Hillman Air Permit Coordinator Black & Veatch 8400 Ward Parkway P.O Box 8405 Kansas City, Missouri 64114

Re: DEP File No. PSD-FL-254 (PA 98-38)

KUA Cane Island Unit 3 - 250 MW Combined Cycle Project

Dear Mr. Hillman:

This is in response to your November 12, 1999 letter requesting clarification from the Department (FDEP) concerning the scope of construction-related activities that may occur prior to issuance of a Prevention of Significant Deterioration (PSD) permit under the Federal regulations at 40 CFR 52.21, and the Department regulations at 62.212.400 F.A.C.

The above mentioned regulations require an applicable source to obtain a PSD permit before it may "begin actual construction" and/or "construction". The federal PSD regulations define "begin actual construction" as the "......initiation of physical on-site construction activities on an emissions unit which are of permanent nature.....With respect to a change in the method of operations, this term refers to those on-site activities other than preparatory activities which mark the initiation of the change". The Department PSD regulations define "construction" as " the act of performing on-site fabrication, erection, installation or modification of an emissions unit or facility of a permanent nature, including installation of foundations or building supports; laying of underground pipe work or electrical conduit; and fabrication or installation of permanent storage structures, components parts of an emissions unit or facility, associated support equipment, or utility connections. Land clearing and other site preparation activities are not a part of construction activities"

Based on the above, the Department concurred with KUA that activities identified in items 1-4 (preliminary earthwork, erosion control, fencing activities and road surfacing) are not prohibited and are allowed prior to the issuance and/or effective date of the Final PSD Permit. Additional information on allowable construction activities are explained in the attached EPA memos (1978-1996).

On the other hand, activities identified in items 5-7 (soil improvement, installation of production water wells, drainage and fire water piping) of your letter are not allowable since they are of a permanent nature and solely for the purpose of accommodating the project.

EPA's letter dated December 13, 1995, to Mr. Williams, Commissioner, Minnesota Pollution Control Agency states: Prohibited (permanent and/or preparatory) preconstruction activities under 40CFR52.21(b)(i)(1) and (b)11 would include any construction that is costly, significantly alters the site, and/or permanent in nature. This would include, but is not limited to: (1) excavating, blasting, removing rock and soil, and backfilling, and installing footings, foundations, permanent storage structure, pipe, and retaining walls. See May 13, 1993 memo from John Rasnic to Region III, Construction Activities at Georgia-Pacific" (GP memo); see also November 4 1993 memorandum from Dave Howekamp to Region IX, Preconstruction Review and Construction Activities Prior to Permit Issuance."

As explained in the GP memo (and those preceding), absent a prohibition on any costly, significant or permanent preconstruction, affected sources could defeat the preconstruction requirement or its enforcement by making a costly, substantial, and/or permanent investment and later argue that retrofitting of PSD requirements or a denial of the permit would unreasonably interfere with their investment.

Further it is EPA's longstanding policy that Section 52.21(i) reasonably prohibits any preconstruction "intended to accommodate" an emissions unit" or "which is an integral part of the source or modification." This is supported by the definition of "emission unit" at 52.21(b)(7), which "means any part of a stationary source which emits or would have the potential to emit any pollutant....." (see March 1986 memo). The meaning of "intended to accommodate" was also discussed in the GP memo which states" [i]f the construction activity is an integral part of the PSD source or modification, the source must obtain a PSD permit prior to construction".

Therefore, the Department concludes that KUA must obtain a PSD permit before activities 5-7 identified in your letter would take place. If you have any other questions, please call Teresa Heron at 850/921-9529.

Sincerely,

C. H. Fancy, P.E., Chief, Bureau of Air Regulation

CHF/th

Enclosures

Mr. A. K. Sharma, KUA*

Mr. Gregg Worley, EPA

Mr. John Bunyak, NPS

Mr. Len Kozlov, DEP CD

Mr. Buck Oven, DEP PPSO

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Kissimmee Utility Authority
Cane Island – Unit 3 PSD Permit Application

B&V Project 59140.0030 November 12, 1999



8400 Ward Parkway P.O. Box 8405 Kansas City, Missouri 64114

Tel: (913) 458-2000

Kissimmee Utility Authority
Cane Island – Unit 3 PSD Permit Application

B&V Project 59140.0030 B&V File 14.1000 November 12, 1999

Black & Veatch Corporation

Florida Department of Environmental Protection Division of Air Resource Management Bureau of Air Regulation Twin Towers Office Building 2600 Blair Stone Road Tallahassee, Florida 32399-2400

Subject:

Determination Request for Pre-

construction Activities

Attention:

Al Linero

Administrator, New Source Review Section

Gentlemen:

On behalf of Kissimmee Utility Authority (KUA, the applicant), Black & Veatch (B&V) is herewith submitting a determination request for what type of construction activities may be conducted prior to issuance of the Prevention of Significant Deterioration (PSD) air construction permit for Cane Island Unit 3.

KUA intends to start land clearing and other site preparation activities that are allowed within the definition of construction, prior to the receipt of the final PSD permit. The planned activities are described below.

1. Preliminary Earthwork

Preliminary earthwork will consist of cleaning and grubbing, removal and disposal of debris, trenching and construction of fills.

2. Erosion Control

Erosion control will be implemented within the construction areas and includes placement of silt fencing and general seeding.

the imagine - build company™

B&V Project 59140.0030 November 12, 1999

3. Fencing

A 7-foot tall chain link security fence with 1-foot of barbed wire will be installed around the perimeter of Unit 3. Construction fencing consisting of a 7-foot tall chain link fence will be installed between the existing Units 1&2 and Unit 3.

4. Road Surfacing

Aggregate surfacing will be used as a road base for the internal plant roads and within the parking areas.

5. Soil Improvement

Soil improvement will be performed using injection of compaction grout and vibro replacement. Compaction grouting consists of a low slump compaction grout injected within the soil to compress and consolidate the surrounding soil in such a way to reduce the probability of future sinkhole development. Vibro replacement includes lowering a vibroflot probe in the soil and adding crushed limestone backfill material through the probe. The probe penetrates the deposited stone, which compacts the stone and forces it radially into the surrounding soil.

6. Installation of Production Water Wells

Four production water wells will be installed as an emergency back-up system to the effluent pipeline supply. Water well pumps with a rated capacity of 450 gpm will be installed in the four new production wells.

7. Drainage and Fire Water Piping

Drainage piping will be installed as part of the water waste collection and treatment system and the oil spill prevention system. Portions of the existing fire protection pipe will be removed and re-routed around the perimeter of Unit 3.

The Florida Department of Environmental Protection Regulation 62-210.200 *Definitions* defines "construction" as "The act of performing on-site fabrication, erection, installation or modification of an emissions unit or facility of a permanent nature, including installation of foundations or building supports; laying of underground pipe work or electrical conduit; and fabrication or installation of permanent storage structures, component parts of an emissions unit or facility, associated support equipment, or utility connections. Land clearing and other site preparation activities are not a part of construction activities." Additional guidance pertaining to this issue is found in an EPA guidance memo of March 28, 1986, which is also enclosed for reference.

KUA believes that activities 1-4 (preliminary earthwork, erosion control, fencing activities, and road surfacing) are clearly allowed within the definition of construction as land clearing and other site preparation activities. KUA requests your concurrence that activities 1-4 would be allowed prior to the issuance and/or effective date of the final PSD air construction permit, as well a determination of whether activities 5-7 would also be allowed.

Kissimmee Utility Authority
Cane Island – Unit 3 PSD Permit Application

B&V Project 59140.0030 November 12, 1999

Your immediate attention to this matter would be appreciated. If you have any questions regarding this request, please do not hesitate to call me at 913-458-7928.

Very truly yours,

BLACK & VEATCH

Timothy M. Hillman Air Permit Coordinator

ank

Enclosure[s] EPA guidance document dated March 28, 1986.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4

345 COURTLAND STREET, N.E. ATLANTA, GEORGIA 30365

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FEB 2 1 1996

4APT-AEB

Clair H. Fancy, P.E., Chief Bureau of Air Regulation FL Dept. of Environmental Protection Twin Towers Office Building 2600 Blair Stone Road Tallahassee, FL 32399-2400

SUBJ: New Source Review Update

Dear Mr. Fancy:

Please find enclosed a copy of a recent document which potentially impacts preconstruction permitting.

1. A December 13, 1995, letter from John Seitz, Director of EPA's Office of Air Quality Planning and Standards (OAQPS) concerning construction activities allowed prior to issuance of a PSD permit.

If you have any questions or comments on these documents, please contact me at (404) 347-3555 ext.4139.

Sincerely yours,

Gregg M. Worley

Source Evaluation Unit Air Enforcement Branch

Air, Pesticides, and Toxics

Management Division

Enclosures



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

RESEARCH TRIANGLE PARK, NC 27711

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OFFICE OF AIR QUALITY PLANNING AND STANDARDS

MAR 13 1996

Mr. Charles W. Williams
Commissioner, Minnesota Pollution Control Adenty
520 Lafayette Road
St. Paul, Minnesota 55155-4194

Dear Mr. Williams:

This is in response to your September 27, 1995 letter to Carol Browner requesting clarification from the United States Environmental Protection Agency (EPA) concerning the scope of construction-related activities that may occur prior to issuance of a Prevention of Significant Deterioration (PSD) permit under the Federal regulations at 40 CFR 52.21, which are also incorporated into Minnesota's rules. Your letter requests the EPA's interpretation on four related issues that are addressed below. The EPA's policy on most of the issues is explained in the attached memorandum of March 28, 1986 entitled "Construction Activities Prior to Issuance of a PSD Permit with Respect to Begin Actual Construction" from Edward E. Reich, Director, EPA's Stationary Source Compliance Division (March 1986 Memo).

First, Minnesota interprets the Federal PSD regulation to allow an applicant to enter into binding agreements or contractual obligations prior to receiving a PSD permit. regulations at 40 CFR 52.21(i)(l) require an applicable source to obtain a PSD permit before it may "begin actual construction." The PSD rules at 40 CFR 52.21(b)(11) define "begin actual construction" as the " ...initiation of physical on-site construction activities on an emissions unit which are of a permanent nature.... With respect to a change in the method of operations, this term refers to those on-site activities other than preparatory activities which mark the initiation of the change." Since entering into binding agreements or contractual obligations is not prohibited under this definition, the EPA agrees with the Minnesota view that these activities are allowed under the Federal PSD rules prior to obtaining a PSD permit. also agree that the owner or operator who chooses to undertake

these activities prior to obtaining the required PSD permit does so at its own risk that a permit may not be issued or may not contain the terms the applicant desires.

Second, Minnesota interprets the Federal PSD rules to not prohibit site clearing activities prior to receiving a PSD permit, but that there is a prohibition on beginning construction activities that are of a permanent nature. The EPA agrees with Minnesota that site clearing and grading are not prohibited by this definition. Allowed preconstruction activities would also include ordering materials and temporary storage on site (see March 1986 memorandum).

Prohibited (permanent and/or preparatory) preconstruction activities under 40 CFR 52.21(b)(i)(1) and (b)(11) would include any construction that is costly, significantly alters the site, and/or permanent in nature. This would include, but is not limited to: (1) excavating, blasting, removing rock and soil, and backfilling, and (2) installing footings, foundations, permanent storage structures, pipe, and retaining walls. See May 13, 1993 memorandum from John Rasnic to Region III, "Construction Activities at Georgia Pacific"(GP memo); see also November 4, 1993 memorandum from Dave Howekamp to Region IX, "Preconstruction Review and Construction Activities Prior to Permit Issuance."

As explained in the GP memo (and those preceding), absent a prohibition on any costly, significant or permanent preconstruction, affected sources could defeat the preconstruction requirement or its enforcement by making a costly, substantial, and/or permanent investment and later argue that retrofitting of PSD requirements or a denial of the permit would unreasonably interfere with their investment.

Further, it is EPA's longstanding policy that section 52.21(i) reasonably prohibits any preconstruction "intended to accommodate" an "emissions unit" or which is an "integral part of the source or modification." This is supported by the definition of "emissions unit" at 52.21(b)(7), which "means any part of a stationary source which emits or would have the potential to emit any pollutant . . . " (see March 1986 memo). The meaning of "intended to accommodate" was also discussed in the GP memo which states: "[i]f the construction activity is an integral part of the PSD source or modification, the source must obtain a PSD permit prior to construction. In other words, if the construction would not serve in accordance with its original intent except for inclusion of the emissions unit, such construction is prohibited prior to obtaining a PSD permit."

Finally, you have asked whether there is flexibility under the Clean Air Act (Act) or rules to allow construction of footings for emissions units without a PSD permit in cold weather States such as Minnesota. EPA's general view is that such an exemption is not authorized under the Act or the Federal PSD Historically, foreseeable circumstances such as a short construction season have been factored into the design, planning, and permitting of any affected construction project. However, the EPA believes that Minnesota has raised legitimate concerns. As a part of the NSR Reform, such concerns were raised and considered, but no agreement was reached on specific changes to the NSR rules. EPA intends to ask the NSR Reform Subcommittee to consider again rule reforms that would address possible extenuating circumstances under which certain limited construction-related activities could take place prior to receipt of a final permit. In the interim, I encourage the State to continue its discussions with the Regional Office to develop a solution, within the current rules, that considers EPA's concerns about allowing certain construction-related activities prior to receipt of a PSD permit. Specifically, should a source request to establish footings prior to cold weather without receiving the required PSD permit, the EPA may be willing to discuss compliance options, consistent with the rules.

I hope this letter clarifies EPA's interpretation of the Federal PSD rules regarding permissible activities prior to obtaining a PSD permit. If you have any questions concerning the application or enforcement of the PSD rules, you may contact Ron Van Mersbergen of EPA Region 5 at (312) 886-6056.

Sincerely,

John S.Seitz Director

Office of Air Quality Planning

and Standards

Enclosures



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, D.C. 20460

MAY 1 3 1993

OFFICE OF AIR AND RADIATION

MEMORANDUM

SUBJECT: Construction Activities at Georgia Pacific

FROM: John B.

John B. Rasnic, Director
Stationary Source Compliance Division Add Confice of Air Quality Planning and Standards

TO:

Bernard E. Turlinski, Chief

Air Enforcement Branch

Region III

This is in response to your memorandum dated April 27, 1993, requesting a written opinion about the applicability of the Prevention of Significant Deterioration (PSD) regulations to certain Georgia-Pacific activities at a site in West Virginia. We also have a copy of the inquiry dated March 29, 1993 to you from Georgia-Pacific. As discussed below, this office concludes that the activities as described by Georgia-Pacific in its letter are construction activities prohibited prior to the issuance of a PSD permit.

Section 165(a) of the Clean Air Act states that "[n]o major emitting facility...may be constructed...unless - (1) a permit has been issued...[and various other requirements satisfied].* Section 52.21(i)(1) specifies that a source may not begin actual construction until the source obtains a PSD permit. regulations and several memoranda specifically state that 'begin actual construction means initiation of physical on-site construction activities...which are of a permanent nature. A memorandum dated December 18, 1978 from Edward Reich, Director of the Stationary Source Compliance Division, "Interpretation of 'Constructed' as it applies to Activities Undertaken Prior to Issuance of a PSD Permit, " specifically states that all on-site activities of a permanent nature aimed at completing a PSD source for which a permit has yet to be obtained are prohibited under all circumstances. A memorandum dated March 28, 1986 from Edward Reich, to Robert DeSpain of Region VIII, "Construction Activities Prior to Issuance of a PSD Permit with Respect to Begin Actual Construction, * clarifies such prohibited activities to include any emissions unit or installation necessary to accommodate the PSD source. If the construction activity is an integral part of the

PSD source or modification, the source must obtain a PSD permit prior to such construction. In other words, if the construction would not serve in accordance with its original intent except for inclusion of the emissions unit, such construction is prohibited prior to obtaining a PSD permit.

In a memorandum dated October 10, 1978 from Edward Reich to Thomas Devine of Region I, "Source Construction Prior to Issuance of a PSD Permit, " EPA referred to equity arguments in addition to the statutory and regulatory basis for prohibiting construction on a source prior to issuance of a PSD permit. Any activities undertaken prior to the issuance of a PSD permit, although solely at the owner's or operator's risk, should minimize or avoid any equity arguments at a later time that the permit should be issued. The memorandum stated that the permitting authority would be placed in a very difficult position when denying issuance of a permit when it results in a completed portion of a project having to remain idle. Therefore, activities of a permanent nature that also contribute to such equity arguments (such as they are an integral part of the PSD source, activities that are very costly or would result in significant irrevocable loss to the owner,) are prohibited construction activities prior to the issuance of a PSD permit.

In the letter to Region III, Georgia-Pacific stated that it blasted rock and removed rock and soil to create a pit 40 feet wide by 230 feet long by 35 feet deep in connection with the construction of an oriented strand board (OSB) plant. Georgia-Pacific requested to be allowed to complete what it describes as "preparatory" activities by constructing a retaining wall and backfill some of the press pit.

Your office agrees that construction of a retaining wall involves more than preparatory activities under 40 C.F.R. \$52.21(b)(11). Although the memorandum from Edward Reich dated December 18, 1978 distinguished activities of a preparatory nature from those of a permanent nature, our policy also focusses on the relation of the activity to the PSD source. Construction of a retaining wall is considered an activity under "begin actual construction" because it is of a permanent nature. The excavation is also permanent and is an integral part of the PSD source.

The PSD regulations prohibit any construction activities that are of a permanent nature related to the specific project for which a PSD permit is needed, as opposed to general construction activities not related to the emissions unit(s) in question, prior to the receipt of a construction permit. This standard prohibits activities affecting the property in a permanent way that the source would reasonably undertake only with the intended purpose of constructing the regulated project. Site clearing and grading are in general relatively inexpensive and could be used for a

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION II 841 Crestrut Building Philadelphia, Pennsylvania 19107

Georgia-Pacific Applicability

DATE: 4-27-93

Determination

Bernard E. Turlinski, Chief

Air Enforcement Branch

John B. Rasnic, Director Stationary Source Compliance Division

Cn April 5, 1993, Region III received an inquiry from Georgia-Pacific Corporation about the applicability of the Prevention of Significant Deterioration regulations to certain Georgia-Pacific activities at a site in West Virginia. This memorandum requests a written opinion from your office about the applicability of the PSD regulations to these activities.

As detailed in Georgia-Pacific's letter, Georgia-Pacific has dug a pit 40 feet wide by 230 feet long by 35 feet deep in preparation for the construction of an OSB plant. Excavating this hole involved blasting and removing rock, as well as soil, and some grading and filling. Georgia-Pacific now proposes to build a retaining wall in order to backfill an additional part of the excavated area. Before proceeding, Georgia-Pacific has requested an EFA opinion about the applicability of PSD.

Based on Region III's reading of the PSD regulations and a memorandum dated March 28, 1986, this situation presents a close question regarding PSD applicability. Earlier EPA policy referenced in the March 28, 1986 remorandum indicates that site clearing and grading do not represent "beginning actual construction" for PSD purposes. However, construction of the retaining wall seems to involve more than peraly preparatory activities under 40 C.F.R. § 52.21(b)(11).

Supporting materials on this question have already been forwarded to Clara Poffenberger of your office. Please provide a written applicability determination at your earliest convenience. If you have any questions regarding this matter, please contact Charles McPhedran, Assistant Regional Counsel, at (215) 897-8451.



Georgia Pacific Corporation Wood Products

Wood Products
Manufacturing Division
P.O. Box 100003
Attenta, Gaorgia 30348
Telephone (404) 521-4000

March 29, 1993

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Hr. Bernard E. Turlinski Enforcement Branch Chief Mail Code 3AT20 U. S. EPA, Region III 841 Chestnut Building Philadelphia, PA 19107

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APR 0 5 1993

Alia ERFORCE INT BRANCE

Dear Mr. Turlinski:

Georgia-Pacific Corporation is working through the state of West Virginia Department of Environmental Protection in an effort to obtain a PSD permit for an OSB plant which we plan to construct within the state.

To date, we have cleared the site and completed a portion of the grading and filling work. As part of this site development work, we blasted rock and removed it, along with the other soil, from the area where the press pit will ultimately be constructed. Because of the size of the pit (approximately 40 feet wide by 230 feet long by 35 feet deep), plus the additional material that had to be removed to maintain acceptable slopes on the side walls, we have ended up with a tramendous hole.

Now, in order to complete this phase of the site work, we plan to install a retaining wall within the press pit area that will allow us to backfill that portion of the excavation that will be outside the actual press pit area. Backfill will be placed and compacted in 1 foot "lifts" up to sub-grade, plus an additional 1 to 4 feet. This "over-fill" will be used to pre-load the filled area below, and will remain in place for 3 to 6 months or until all settlement has ceased. This pre-loading will prevent settlement of the building foundations that will ultimately be placed in this filled area.

If this back filling is not completed in 1993, the whole project will be delayed by about 6 months. Based on the monitoring schedules and the anticipated time required for review of the permit application, we expect to receive our permit about the first of January, 1994. However, since the ground can freeze to a depth of 1 to 2 feet, in this part of the country, this fill work could not be done during the winter months. We would, therefore, be forced to wait until the spring of 1994 to begin. Since it will take about 1 1/2 to 2 months to do the back-filling, and an additional 3 to 6 months must be allowed for the settling to take place, the delay could easily add 6 months to the overall length of the job.

tower. Bernard E. Turlinski

We realize that there is a possibility that the site we have selected for this plant cannot be permitted, and that we are at some risk in proceeding with the planned work. We are willing to take this risk, but we are not willing to risk a possible NOV from EPA for beginning actual construction without a permit. We have reviewed the regulations and the "guldance" covering the type of work that is allowed, prior to receiving a permit, and we do not believe that the work outlined above is in violation of the either the letter or the intent of the law. However, before we proceed, we need confirmation from your office that our interpretation is correct. Please advise.

If you have any questions, please give me a call at 404/521-5078.

Sincerely,

Manager of Engineering Building Products Engineering GEORGIA-PACIFIC CORPORATION

Mr. R. L. Burns Mr. R. H. Jordan Mr. R. H. Dodges
Mr. A. F. Hodges
Mr. L. P. B. Otwell



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

75 Hawthorne Street San Francisco, Ca. 94105-3901

November 4, 1993

MEMORANDUM

SUBJECT: Preci

Preconstruction Review and Cons

FROM:

Dave Howekamp

Director

Air and Toxics Division

TO:

See Below

This memorandum reiterates EPA's longstanding interpretation concerning the range of construction related activities that lawfully may occur prior to the issuance of a permit to construct or modify a facility or emissions unit.

The Clean Air Act mandates a preconstruction review program for sources subject to Prevention of Significant Deterioration (PSD) (§ 165) and New Source Review (NSR) (§§ 172 and 173) requirements. In addition, under § 110 (a)(2)(c), State and local agencies are required to include in their State Implementation Plans preconstruction review programs necessary to assure that construction of any new or modified source is consistent with attainment of the National Ambient Air Quality Standards. To fulfill this requirement, most District rules require that any person building any article, machine, or contrivance which may cause the issuance of air contaminants shall obtain authorization for such construction prior to beginning actual construction.

Preconstruction review is a necessary precursor to engineering and public review processes. As a result of this process, the permitting authority may require installation of air pollution control or monitoring equipment that was not initially provided for in the design process. Thus, the pre-construction review process is mandated both to ensure that Clean Air Act requirements are met and to help sources avoid costly construction changes.

The question of what type of preliminary site activities may be conducted prior to permit issuance was addressed by EPA policy memoranda on December 18, 1978, March 28, 1986 and May 13, 1993. These memoranda explain that certain limited activities that do not represent an irrevocable commitment to the project would be allowed, such as planning, ordering of equipment and materials, site clearing, grading, and on-site temporary storage of equipment and materials. Any of these activities, if undertaken prior to issuance of a permit, would be at the risk of the owner or operator.

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In contrast, all on-site activities of a permanent nature aimed at completing construction or modification of the source—including, but not limited to, installation of building supports and foundations, paving, laying of underground pipe work, construction of any permanent storage structure, and activities of a similar nature—are prohibited until after the permit is issued and effective, under all circumstances.

In addition, EPA has long maintained that in order to meet legal requirements, permits to construct must require enforceable emission limitations. Limiting the potential to emit of a stationary source is of primary importance in establishing whether a new or modified source is major and thus subject to PSD or NSR requirements. For any limit or condition to be a legitimate restriction on potential to emit, that limit or condition must be federally enforceable. Such conditions and limitations ensure that:

- a source that has the potential to emit in amounts that would constitute a major source or major modification is restricted from doing so in a manner that is federally enforceable;
- all contemporaneous emissions increases and decreases are creditable and federally-enforceable; and
- where appropriate, emissions offsets transactions are documented clearly and offsets are real, creditable, quantifiable, permanent, and federally-enforceable.

We are committed to working with you to ensure that sources participate in the preconstruction review process and obtain permits with federally enforceable emission limitations prior to beginning actual construction (as defined at 40 CFR 51.165 (a)(1)(xv), 51.166 (b)(11), and 52.21 (b)(11)). If you have any questions or would like copies of the memoranda mentioned above, please contact Jennifer Fox of my staff at 415-744-1257.

Addressees:

All Region IX Air Agency Directors
All Region IX New Source Review Contacts



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, D.C. 204

MAR 28 1985

OFFICE OF AIE AND BADIATION

MEMORANDUM

SUBJECT: Construction Activities Prior to Issuance of a PSD

Permit with Respect to "Begin Actual Construction"

FROM:

Director

Stationary Source Compliance Division

Office of Air Quality Planning and Standards

TO:

Robert R. DeSpain, Chief

Air Programs Branch, Region VIII

This memorandum addresses the interpretation of "begin actual construction" as it refers to construction activities which may occur, or are prohibited prior to issuance of a PSD permit under 40 CFR 52.21(i). The Control Programs Development Division of OAQPS, the Office of General Counsel, and the Air Enforcement Division of the Office of Enforcement and Compliance Monitoring were consulted in the development of this memorandum, and all three offices concur with its content.

Section 165(a) of the Clean Air Act states that "[n]o major emitting facility...may be constructed...unless — (1) a permit has been issued...[and various other requirements are satisfied]." Section 165 requirements, then, apply to major emitting facilities, i.e. major stationary sources. However, the PSD regulations at \$52.21(i)(1) state that, "[n]o stationary source or modification...shall begin actual construction without a permit which states that the stationary source or modification...[has met various requirements]." The term "begin actual construction" at \$52.21(b)(11) in the PSD regulations refers to "construction activities on an emissions unit." Emissions unit is defined at \$52.21(b)(7) as "...any part of a stationary source which emits or would have the potential to emit any pollutant subject

to regulation under the Act. Therefore, although applicability of PSD is determined on a source-wide basis, it may become necessary to distinguish the emissions unit from the major stationary source or modification in order to determine at what point in construction planning or construction activities a PSD permit is required.

The question of what type of construction activities may be conducted prior to issuance of a PSD permit has been covered by EPA policy for many years. On December 18, 1978 EPA issued policy addressing this issue. That memorandum specified that certain limited activities would be allowed, such as planning, ordering of equipment and materials, site-clearing, grading, and on-site storage of equipment and materials. Any of these activities, if undertaken prior to issuance of a PSD permit, would be at the risk of the owner or operator. All on-site activities of a permanent nature aimed at completing a PSD source (including, but not limited to, installation of building supports and foundations, paving, laying of underground pipe work, construction of permanent storage structures, and activities of a similar nature) are prohibited until the permit is obtained, under all circumstances. This December 1978 policy defines the type of construction activities allowed at a PSD-affected source prior to issuance of a PSD permit.

Since section 52.21(i)(1) specifies that a source may not begin actual construction (on an emissions unit) until a PSD permit is obtained by that source, and "begin actual construction" at \$52.21(b)(11) refers to the emissions unit, it is necessary to clarify the definition of emissions unit. "Emissions unit" as defined at \$52.21(b)(7) refers not only to units which emit pollutants subject to review under PSD, but to any part of the source which emits a pollutant subject to regulation under the Clean Air Act. By definition then, any part of a PSD source which would emit any pollutant subject to regulation under the Act is considered an emissions unit, even if that particular unit is not subject to PSD review. The emissions unit would include any installations necessary to accommodate that unit. Therefore, before issuance of the PSD permit, construction is prohibited on any emissions unit or on any installation designed to accompdate the emissions unit. If the emissions unit (including any accomodating installations) is an integral part of the

source or modification (i.e. the source or modification would not serve in accordance with its original intent, except for inclusion of the emissions unit), the PSD permit must be obtained before construction on the entire source commences.

The policy statement from 1978 reflects the Current policy on the types of construction activities which are prohibited, or may occur at risk to the owner prior to issuance of a PSD permit. Language changes in the regulations after this guidance was issued did not alter EPA's interpretation of what a source may do prior to obtaining a PSD permit.

If you have any questions, please contact Sally M. Farrell at FTS 382-2875.

Edward E. Reich

cc: Kirt Cox, CAQPS
Gregory Foots, OGC
Douglas A. Johns, DOJ
Judith Katz, OECH
Tim Osag, Region VIII
NSR Regional Contacts



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, D.C. 20460 February 13, 1378

OFFICE OF ENFORCEMENT

MEMORANDUM

SUBJECT: PSD Applicability Determination

FROM: Director

Division of Stationary Source Enforcement

TO: Stephen A. Dvorkin, Chief

General Enforcement Branch - Region II

This is in response to your request dated January 12, 1978, concerning the applicability of the regulations for prevention of significant deterioration (PSD) to the Virgin Islands Refinery Corporation's (VIRCO) petroleum refinery to be located on St. Croix, U.S. Virgin Islands. The question at issue is whether VIRCO had commenced construction of the refinery prior to June 1, 1975.

Commenced, as it was defined on June 1, 1975, means that an owner or operator has undertaken a continuous program of construction or modification or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of construction or modification. This definition has been refined to apply to on-site construction (See memos from Roger Strelow to Regional Administrators dated December 18, 1975 and April 21, 1976, copies attached). Therefore, only significant and continuous site preparation work such as major clearing or excavation or placement, assembly, or installation of unique facilities or equipment at the site should be considered a program of construction or modification for purposes of §52.21(b)(7).

While the question at issue is whether VPRCO commenced construction prior to June 1, 1975, it breaks down into two areas: 1) Has VTRCO undertaken a program of continuous construction, or 2) has it entered into a contract to undertake a continuous program. It is not enough that a major source has purchased a site to qualify for exemption from the PSD permit. If this were true many major companies with large land holdings could avoid the PSD requirements by virtue of owning these potential sites. Even if the site clearing,

new sources (§51.13). Failure to obtain approval before commencing on-site construction of a source requiring such approval would, of course, violate the applicable plan. Therefore, any source of the type covered by the significant deterioration regulations that has not yet received approval to construct pursuant to the applicable plan should be subject to review. In any situation where such approval is not required for a source prior to commencement of on-site construction, the lack of such approval will not be determinative that the source has not commenced on-site construction.

There may also be situations where, although actual onsite work has not commenced or been contracted for, the
source is so irrevocably committed to a particular site that
it should be considered as having commenced construction.
Such situations could include sources which are only a few
days or weeks from commencing on-site construction or sources
which have contracted for or constructed unique site specific
facilities or equipment which are not yet being installed
on-site. Such situations will be rare but may be taken into
account in determining whether the source is in effectively
the same position as if it had commenced on-site construction.

Because some sources may, in good faith, have construed §52.21(b)(7) differently before this guidance and have since entered into binding commitments on the assumption that they were exempt from review, it is necessary to provide for such cases. Therefore, where a source has, in good faith, begun on-site construction or entered into a contractual obligation to begin on-site construction after June 1, 1975, on the good faith assumption that the source was exempt from the significant deterioration regulation, the source will not be subject to review. Reliance upon formal written statements by EPA personnel that the source in question would not be subject to new source review under these requiations would ordinarily be considered reasonable reliance in good raids on the assumption that the regulations do not apply to such sources. Conversely any source that is aware of this guidance at the time on-site construction commenced or a contractual obligation was undertaken could not be considered to have done so in good faith reliance that it did not need to be reviewed. Therefore you should review all major sources

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UNITED ST TES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, D.C. 20485

APR 2 : 1975

OFFICE OF AIR AND WASTE MANAGEMENT

MEMORANDUM

SUBJECT: PSD Regulations - Interpretation of

"Commencement of Construction"

FROM: Roger Strelow, Assistant Administrator

for Air and Waste Management (AW-443),

TO: Regional Administrators

Because several questions have been raised about my memo of December 18, 1975 on the above-referenced subject, I would like to stress one basic point and clarify another.

A. The "Contract" Exemption. For a contractual obligation to qualify a source for an exemption, 48 CFR 52.21(b)(7) requires that the obligation be for a "continuous program of construction or modification." Page 1 of my December 18 memo states that ordinarily, "only significant and continuous site preparation work, such as major clearing or excavation or placement, assembly, or installation of unique facilities or equipment at the site should be considered a 'program of construction or modification'." (Emphasis added).

Thus, as a general rule, for one to qualify for the contractual exemption, he must have contracted for continuous on-site construction work. The discussion in the first full paragraph on page 3 of my December 18 memó is not intended to provide exceptions to this general rule. That discussion relates to situations in which even though a "contract" for on-site work were executed prior to June 1975, the "contract" might still not qualify the source for an exemption.

Accordingly, the mere fact that a source had contracted for the fabrication of a piece of equipment prior to June 1975 (i.e., placing an order for a boiler) would not ordinarily exempt the source. Only if a non-site-work contract could fit within the "irrevocably committed"

the other two units. On the other hand, commencement of construction of the basis oxygen furnaces at a new grass-roots steel mill would exempt other facilities, such as a blast furnace, continuous casting operation, rolling mill, and sintering plant, which are necessary to operate the basic oxygen furnaces.

As this guidance indicates, there is no clear line dividing those sources which are grandfathered and those which are not. Judgments must be made on a case-by-case basis. For this reason it is not possible to predict without knowing the facts of each case which sources are subject to PSD review.

The policy contained in this guidance package has been discussed at length with Regions VIII and X and was also discussed and agreed to at the December 12 meeting in Dallas with the Regional Division Directors for Air and Hazardous Materials.

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UNITED LIATES ENVIRONMENT ALPROTECTION AGENCY

WBJECT: PSD Regulations - Interpretation of Commencement of Construction

DATE: CEC 12 13/5

FROM:

Roger Strelow, Assistant Administrator

for Air and Waste Management (AW-433) //833

TO:

Regional Administrators

This memorandum provides guidance on how the phrase "commence" as that term is used in EPA's regulations to prevent significant deterioration of air quality (40 CFR §52.21) is to be interpreted.

Section 52.21(d)(2) of the regulations requires that any of the 19 specified types of sources which commence construction or modification subsequent to June 1, 1975, are required to obtain a permit. 40 CFR §52.21(b)(7) defines commenced as follows:

"Commenced" means that an owner or operator has undertaken a continuous program of construction or modification or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of construction or modification.

The purpose of the regulations to prevent significant deterioration is to ensure that a source is not located at a site which would result in emissions from that source violating the applicable increment. Thus the term "commencement of construction" as that term is used in the regulations to prevent significant deterioration, refers to on-site construction. Ordinarily therefore only significant and continuous site preparation work such as major clearing or excavation or placement, assembly, or installation of unique facilities or equipment at the site should be considered a "program of construction or modification" for purposes of \$52.21(b)(7). However each case must be reviewed on its own facts, as noted below.

There are two additional factors that should be considered. Under 40 Part 51, Regulations for Preparation, Adoption, and Submittal of State Implementation Plans (SIP's), all SIP's are required to include a procedure for review (prior to construction and modification) of the location of

exception (discussed in the first full paragraph on page 2 of my December 18 memo) would it qualify the source for an exemption from review. As my memo indicates, such situations should be "rare."

A. Permits Under 40 CFR 51.18. I did not intend to state that as an iron-clad rule, a source which had not received a 51.18 permit would be subject to PSD review. Since this is a reasonable inference from the discussion at the top of page 2 of my December 18 memo, I should clarify the matter.

What I did intend to say was that the absence of a 51.18 permit should be considered as a relevant factor in determining whether a source could meet the "irrevocably committed" exception (discussed in the first full paragraph on page 2 of my December 18 memo). A source's arguments regarding an "irrevocable commitment" would have to be looked at extremely skeptically if it had not yet even obtained a 51.18 permit.

I should note in concluding this point that the presence of a 51.18 permit, by itself, neither constitutes the commencement of construction nor an "irrevocable commitment" to do so.

cc: Regional Air Division Directors Regional Counsel



intending to construct in your Region and notify those sources which are subject to review in accordance with this guidance.

Finally, 40 CFR §52.21(b)(7) states that an owner or operator has commenced construction not only when he has undertaken a continuous program of construction or modification himself but also when he has entered into a "contractual obligation to undertake and complete, within a reasonable time, a continuous program of construction or modification". The question of whether a contract represents a "contractual obligation" will depend upon the unavoidable loss that would be suffered by a source if it is required to cancel such contract. It is clearly beyond the intent of these regulations, for example, to permit a source which has only a contract revocable at will to escape review under these regulations. Correspondingly, where the contract may be cancelled or modified at an insubstantial loss to the plant operator, the proposed source should not be allowed to escape review under these regulations. The determination of whether a source will suffer a substantial loss if the contract were terminated and therefore whether there is, in fact a "contractual obligation", must be made on a case-bycase basis as there are no general guidelines that would cover all situations. Factors that would be considered would include the question of whether or not the contract could be executed at another site or modified for the site in question and the amount of any additional costs of constructing at another site or of cancelling the contract.

Additional questions may arise concerning the applicability of the PSD regulations to phased construction projects. If a new stationary source will contain a number of facilities to be built in a program of phased construction, the entire project should not automatically be exempt from review just because one of the facilities is grandfathered. Only those additional facilities which are necessary for the operation of the grandfathered facility should be exempt from review.

For example, if a power company has commenced construction only on the first unit of a planned three-unit power plant prior to June 1, 1975, the other two units would normally not be exempt from significant deterioration review, since the first unit can operate completely independently of which VIRCO has accomplished to date, satisfies the contentions in Strelow's memo, it is my opinion that VIRCO could not have undertaken a continuous program of on-site construction in light of the fact that they have not resumed their construction for a period in excess of two and one-half years.

It appears from item #2 in your memo that VIRCO's liability under their site preparation contract is limited to \$250,000. However, liability pursuant to a liquidated damages provision, should VIRCO cancel the contract entirely, is a different issue from how much liability VIRCO could incur for site preparation work done without its written approval. It is our position that the \$250,000 does not constitute a significant expenditure. However, should there be a large difference in liability incurred by VIRCO resulting from cancellation of the contract this issue may be re-opened.

In summary, based on the information submitted in your memo, it is the determination of this office that VIRCO will not suffer a significant loss should they be unable to construct this source at this site. This is provided, as discussed previously that the figures in item #2 of your memo do not significantly change. Therefore, I believe that the proposed VIRCO petroleum refinery has not commenced construction and is subject to the PSD regulations. Further, VIRCO, should they not obtain a PSD permit prior to March 1, 1978, will be subject to the new PSD requirements as proposed on November 3, 1977.

If you have any additional questions or comments, please contact Rich Biondi (755-2564) of my staff.

Edward E. Reich

Attachment
cc: Mike Trutna - CPDD

Note:

Although this determination was made based on the definiton of "commenced" contained in 52.21 (b)(7), the results of this decision would not have been altered had the definition contained in the Clean Air Act Amendments (§169(2)) been used instead.



UNITED STATES ENVIRONMENTAL PROTECTION, AGENCY WASHINGTON, D.C. -20460

JUL I 1978

MEMORANDUM

TO:

SUBJECT: "Commence Construction" under PSD

FROM: Director,

Division of Stationary Source Enforcement 22-22122 17

Region V

David Kee, Chief Air Enforcement Branch

This is in response to your memo of April 7, 1978, requesting guidance on how to apply the definition of "commence construction" under the new PSD regulations.

One of the requirements a major new source or major modification must satisfy in order to have commenced construction is that the owner or operator must have obtained and must continue to hold all necessary preconstruction approvals required under the applicable SIP. If all necessary preconstruction approvals have not been obtained and maintained, construction has not commenced. Your memo requests guidance on the application of this requirement in cases where a State grants limited permits, grants permits in stages, or allows site work without a permit. Rather than providing you with general examples to follow, we would prefer to address individual situations involving these State permitting procedures on a case by case basis. In this manner, consistency can be maintained in applying the regulations to unique and complex situations which might not fit a gameral example. If you are aware of specific cases where unusual State permitting procedures affect applicability of PSD, please feel free to refer them to us.

In addition to obtaining all required permits, a source must also satisfy one of two additional requirements in order to commence construction. A source must either begin a continuous program of physical on-site construction or 2) enter into a contractual obligation to undertake a program of on-site construction to be completed within a reasonable time. Three specific questions regarding these requirements were raised in your memo and are addressed below.

AIR FROMMS

OFFICE OF ENFORCEMENT

1) What constitutes physical on-site construction?

We have interpreted physical on-site construction to refer to placement, assembly, or installation of materials, equipment, or facilities which will make up part of the ultimate structure of the source. In order to qualify, these activities must take place on-site or must be site specific. Placement of footings, pilings and other materials needed to support the ultimate structures clearly constitutes on-site construction. As stated in the preamble to the draft regulations, "it will not suffice merely to have begun erection of auxiliary buildings or construction sheds unless there is clear evidence (through contracts or otherwise) that construction of the entire facility will definitely go forward in a continuous manner". Activities such as site clearing and excavation work will generally not satisfy the commence construction requirements.

2) What constitutes a contractual obligation to undertake a program of construction?

In order to satisfy the commence construction requirements, a contractual obligation must be a site specific commitment. The types of activities which will be considered site specific for purposes of a contract are identified in question \$\frac{1}{2}\$ above. Contracts for work on footings, pilings, and other site specific materials and equipment will clearly satisfy the requirement while contracts for site clearing and excavation will not. The legislative history clearly indicates that contracts for non site specific equipment, such as boilers, will typically not suffice, regardless of any penalty clauses contained in the contracts.

A contractual obligation for purposes of commencing construction must also be one which cannot be cancelled or modified without substantial loss. The PSD regulations provide guidance on determining whether a loss should be deemed "substantial". A loss which would exceed 10% of the total project cost will clearly be considered substantial. Whether a loss of less than or equal to 10% of the total project cost will be considered substantial will be determined on a case by case basis.

3) What constitutes a reasonable time?

In order to assure that construction proceeds in a continuous manner and is completed within a reasonable

time, the regulations require that a break in construction of greater than 18 months or failure to commence construction within 18 months of PSD permit issuance will generally invalidate a source's PSD permit. This 13 month period may be extended by the Administrator upon a satisfactory showing that an extension is justified.

Your memo raises a question as to what test should be used to decide, for enforcement purposes, if construction has commenced when a source has proceeded on a project without a permit. The PSD regulations state that no major stationary source or major modification shall be constructed until the preconstruction approval requirements are met. If a source subject to PSD review has begun on-site construction without a PSD permit, the source is in violation of §52.21.

Additionally, your memo requests guidance on Sections 113(a)(5), 113(b)(5), and 167. My staff is currently preparing a guidance document which addresses implementation of these sections and which will be forwarded to you upon completion.

If you require any further assistance, please contact Libby Scopino (755-2564) of my staff.

Edward E. Reich

Mike Trutna CC: Eric Cohen Ken Eng Winston Smith

Don Harvey Dave Joseph Mike Johnston

Bennett Stokes

Peter Wyckoff Linda Murphy Glenn Hansen Steve Rothblatt Bob Chanslor Lloyd Kostow John Johnson

variety of possible construction-related activities. Moreover, even if site clearing and grading were not followed by any construction, it normally would not represent a significant economic loss to the owner or change in use of the property. Accordingly, such activities generally are not considered permanent activities related to the specific project. The excavation activities in this case, on the other hand, are costly, they significantly alter the site, are an integral part of the overall construction project, and are clearly of a permanent nature. Consequently, these activities are within the meaning of "begin actual construction."

Therefore, we agree with your opinion that construction of the retaining wall is a prohibited activity. In addition, we believe that the excavation is a prohibited activity, as well.

If you have any questions regarding this matter, please contact Clara Poffenberger at 703 308-8709.

Attachments

CC: Julie Domike, OE
Greg Foote, OGC
David Solomon, AQMD
Laxmi Kesari, SSCD
Charles McPhedran, ORC, Region III



BLACK & VEATCH

8400 Ward Parkway P.O. Box 8405 Kansas City, Missouri 64114

NOV 15 1999

Tel: (913) 458-2000

BUREAU OF AIR REGULATION

Kissimmee Utility Authority
Cane Island – Unit 3 PSD Permit Application

B&V Project 59140.0030 B&V File 14.1000 November 12, 1999

Florida Department of Environmental Protection Division of Air Resource Management Bureau of Air Regulation Twin Towers Office Building 2600 Blair Stone Road Tallahassee, Florida 32399-2400

Subject:

Determination Request for Pre-construction

Activities

Attention: Al Linero

Administrator, New Source Review Section

Gentlemen:

On behalf of Kissimmee Utility Authority (KUA, the applicant), Black & Veatch (B&V) is herewith submitting a determination request for what type of construction activities may be conducted prior to issuance of the Prevention of Significant Deterioration (PSD) air construction permit for Cane Island Unit 3.

KUA intends to start land clearing and other site preparation activities that are allowed within the definition of construction, prior to the receipt of the final PSD permit. The planned activities are described below.

1. Preliminary Earthwork

Preliminary earthwork will consist of cleaning and grubbing, removal and disposal of debris, trenching and construction of fills.

2. Erosion Control

Erosion control will be implemented within the construction areas and includes placement of silt fencing and general seeding.

3. Fencing

A 7-foot tall chain link security fence with 1-foot of barbed wire will be installed around the perimeter of Unit 3. Construction fencing consisting of a 7-foot tall chain link fence will be installed between the existing Units 1&2 and Unit 3.

4. Road Surfacing

Aggregate surfacing will be used as a road base for the internal plant roads and within the parking areas.

5. Soil Improvement

Soil improvement will be performed using injection of compaction grout and vibro replacement. Compaction grouting consists of a low slump compaction grout injected within the imagine - build company™

Kissimmee Utility Authority
Cane Island – Unit 3 PSD Permit Application

B&V Project 59140.0030 November 12, 1999

the soil to compress and consolidate the surrounding soil in such a way to reduce the probability of future sinkhole development. Vibro replacement includes lowering a vibroflot probe in the soil and adding crushed limestone backfill material through the probe. The probe penetrates the deposited stone, which compacts the stone and forces it radially into the surrounding soil.

6. Installation of Production Water Wells

Four production water wells will be installed as an emergency back-up system to the effluent pipeline supply. Water well pumps with a rated capacity of 450 gpm will be installed in the four new production wells.

7. Drainage and Fire Water Piping

Drainage piping will be installed as part of the water waste collection and treatment system and the oil spill prevention system. Portions of the existing fire protection pipe will be removed and re-routed around the perimeter of Unit 3.

The Florida Department of Environmental Protection Regulation 62-210.200 *Definitions* defines "construction" as "The act of performing on-site fabrication, erection, installation or modification of an emissions unit or facility of a permanent nature, including installation of foundations or building supports; laying of underground pipe work or electrical conduit; and fabrication or installation of permanent storage structures, component parts of an emissions unit or facility, associated support equipment, or utility connections. Land clearing and other site preparation activities are not a part of construction activities." Additional guidance pertaining to this issue is found in an EPA guidance memo of March 28, 1986, which is also enclosed for reference.

KUA believes that activities 1-4 (preliminary earthwork, erosion control, fencing activities, and road surfacing) are clearly allowed within the definition of construction as land clearing and other site preparation activities. KUA requests your concurrence that activities 1-4 would be allowed prior to the issuance and/or effective date of the final PSD air construction permit, as well a determination of whether activities 5-7 would also be allowed.

Your immediate attention to this matter would be appreciated. If you have any questions regarding this request, please do not hesitate to call me at 913-458-7928.

Very truly yours,

Air Permit Coordinator

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Enclosure[s]

EPA guidance document dated March 28, 1986.

THE TEXT YOU ARE VIEWING IS A COMPUTER-GENERATED OR RETYPED VERSION OF A PAPER PHOTOCOPY OF THE ORIGINAL. ALTHOUGH CONSIDERABLE EFFORT HAS BEEN EXPENDED TO QUALITY ASSURE THE CONVERSION, IT MAY CONTAIN TYPOGRAPHICAL ERRORS. TO OBTAIN A LEGAL COPY OF THE ORIGINAL DOCUMENT, AS IT CURRENTLY EXISTS, THE READER SHOULD CONTACT THE OFFICE THAT ORIGINATED THE CORRESPONDENCE OR PROVIDED THE RESPONSE.

MEMO # 14.8

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, D.C. 20460

OFFICE OF AIR AND RADIATION

MAR 28 1986

SUBJECT: Construction Activities Prior to Issuance of a PSD

Permit with Respect to "Begin Actual Construction"

FROM: Director

Stationary Source Compliance Division

Office of Air Quality Planning and Standards

TO: Robert R. DeSpain, Chief

Air Programs Branch, Region VIII

This memorandum addresses the interpretation of "begin actual construction" as it refers to construction activities which may occur, or are prohibited prior to issuance of a PSD permit under 40 CFR 52.21(i). The Control Programs Development Division of OAQPS, the Office of General Counsel, and the Air Enforcement Division of the Office of Enforcement and Compliance Monitoring were consulted in the development of this memorandum, and all three offices concur with its content.

Section 165(a) of the Clean Air Act states that "[n]o major emitting facility...may be constructed...unless - (1) a permit has been issued... [and various other requirements are satisfied]." Section 165 requirements, then, apply to major emitting facilities, i.e. major stationary sources. However, the PSD regulations at Section 52.21(i) (1) state that, "[n]o stationary source or modification... shall begin actual construction without a permit which states that the stationary source or modification... [has met various requirements]." The term "begin actual construction" at Section 52.21(b) (11) in the PSD regulations refers to "construction activities on an emissions unit." Emissions unit is defined at Section 52.21 (b) (7) as "...any part of a stationary source which emits or would have the potential to emit any pollutant subject

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to regulation under the Act." Therefore, although applicability of PSD is determined on a source-wide basis, it may become necessary to distinguish the emissions unit from the major stationary source or modification in order to determine at what point in construction planning or construction activities a PSD permit is required.

The question of what type of construction activities may be conducted prior to issuance of a PSD permit has been covered by EPA policy for many years. On December 18, 1978 EPA issued policy addressing this issue. That memorandum specified that certain limited activities would be allowed, such as planning, ordering of equipment and material, site-clearing, grading, and on-site storage of equipment and materials. Any of these activities, if undertaken prior to issuance of a PSD permit, would be at the risk of the owner or operator. All on-site activities of a permanent nature aimed at completing a PSD source (including, but not limited to, installation of building supports and foundations, paving, laying of underground pipe work, construction of permanent storage structures, and activities of a similar nature) are prohibited until the permit is obtained, under all circumstances. This December 1978 policy defines the type of construction activities allowed at a PSD-affected source prior to issuance of a PSD

permit.

Since section 52.21 (i) (1) specifies that a source may not begin actual construction (on an emissions unit) until a PSD permit is obtained by that source, and "begin actual construction" at Section 52.21 (b) (11) refers to the emissions unit, it is necessary to clarify the definition of emissions unit. "Emission unit" as defined at Section 52.21 (b) (7) refers not only to units which emit pollutants subject to review under PSD, but to any part of the source which emits a pollutant subject to regulation under the Clean Air Act. By definition then, any part of a PSD source which would emit any pollutant subject to regulation under the Act is considered an emissions unit, even if that particular unit is not subject to PSD review. The emissions unit would include any installations necessary to accommodate that unit. Therefore, before issuance of the PSD permit, construction is prohibited on any emissions unit or on any installation designed to accommodate the emissions unit. If the emissions unit (including any accommodating installation) is an integral part of the

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source or modification (i.e. the source or modification would not serve in accordance with its original intent, except for inclusion of the emissions unit), the PSD permit must be obtained before construction on the entire source commences.

The policy statement from 1978 reflects the current policy on the types of construction activities which are prohibited, or may occur at risk to the owner prior to issuance of a PSD permit. Language changes in the regulations after this guidance was issued did not alter EPA's interpretation of what a source may do prior to obtaining a PSD permit.

If you have any questions, please contact Sally M. Farrell at FTS 382-2875.

Edward E. Reich

cc: Kirt Cox, OAQPS
Gregory Foote, OGC
Douglas A. Johns, DOJ
Judith Katz, OECM
Tim Osag, Region VIII
NSR Regional Contacts



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

RECEIVED

NOV 8 1999

4APT-ARB

Mr. Howard L. Rhodes, Director Division of Air Resources Management Florida Department of Environmental Protection Twin Towers Office Building 2600 Blair Stone Road Tallahassee. Florida 32399-2400 RECEIVENOV 12 1999

DIVISION OF AIR

NOV 17 1999 OURCES MANAGEMENT

BUREAU OF AIR PEQULATION

Acutt 11/18

SUBJ: Notice of Potential Appeal to the Environmental Appeals Board of the U.S. Environmental Protection Agency - Kissimmee Utility Authority, Cane Island No. 3 Combustion Turbine Project

Dear Mr. Rhodes:

The prevention of significant deterioration (PSD) permits required for projects subject to the Florida Electrical Power Plant Siting Act (PPSA) are issued by the Florida Department of Environmental Protection (FDEP) under authority delegated by the U.S. Environmental Protection Agency (EPA). Since the authority to issue such permits is a federally delegated authority, EPA can appeal objectionable PPSA project PSD permits to the EPA Environmental Appeals Board pursuant to 40 C.F.R. Part 124. This letter serves notice that Region 4 intends to file an appropriate appeal to the Environmental Appeals Board if FDEP issues a final permit for a PPSA project as proposed in the draft permit for this project. The project at issue is the Kissimmee Utility Authority (KUA) Cane Island Unit No. 3 combustion turbine project at the Cane Island Power Park near Intercession City, Florida (permit number PSD-FL-254 and site certification number PA 98-38).

The KUA project consists of a single combustion turbine designated as Cane Island Unit No. 3. The draft permit for this project allows the combustion turbine to be fired with either natural gas or fuel oil and to be operated in combined cycle mode with a heat recovery steam generator using supplemental firing (a duct burner) or in simple cycle mode. At issue are the proposed NO_x emissions rates when firing natural gas.

FDEP issued a draft PSD permit for this project on January 7, 1999. The draft permit requires KUA to install a DLN combustor for control of NO_x emissions from the combustion turbine when firing natural gas and a low NO_x burner for control of NO_x emissions from the duct burner. The draft permit further states that KUA may design the heat recovery steam generator to accommodate installation of selective catalytic reduction (SCR) technology. The draft permit also requires that, when firing the combustion turbine with natural gas and without the duct burner, KUA must achieve a NO_x emissions rate of 9 ppm (dry basis at 15 percent oxygen) if DLN combustor control is used or 6 ppm if SCR control is used. When the combustion turbine

and duct burner are both in operation and firing natural gas, KUA must achieve a NO_x emissions rate of 9.4 ppm with DLN control or 6 ppm with SCR control. The draft permit does not mandate that KUA use SCR technology or achieve a NO_x emissions rate less than 9 ppm when firing natural gas.

Region 4 submitted a letter dated February 2, 1999, commenting on the draft permit (and the accompanying FDEP preliminary determination). In our letter we stated the following with regard to BACT: "The PSD application and preliminary determination do not present any unusual site-specific conditions associated with the KUA project to indicate that the use of SCR to achieve NO_x emissions of 3.5 ppm would create greater problems than experienced elsewhere at other similar facilities. We suggest that the State reconsider the BACT decision for NO_x for the proposed KUA project. We would also request that the permit not be issued until we reach a consensus on the NO_x BACT analysis."

No information has been provided subsequent to our February 2, 1999, letter to convince us that BACT for this project is anything other than a NO_x emissions rate of 3.5 ppm to be achieved using SCR or some other control method. Consequently, if FDEP issues a final permit that does not require a NO_x emissions rate of 3.5 ppm or less when firing natural gas, EPA Region 4 intends to appeal the permit to the EPA Environmental Appeals Board.

If you have any questions concerning our comments, please contact Doug Neeley at (404) 562-9097 or Gregg Worley at (404) 562-9141.

Sincerely,

Winston A. Smith

Director

Air, Pesticides, and Toxics Management Division

Wusten d. Smith

cc: Kissimmee Utility Authority

CC: 1. Heron

PART 124—PROCEDURES FOR DECISIONMAKING

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APPENDIX A TO PART 124-GUIDE TO DECISIONMAKING UNDER PART 124

AUTHORITY: Resource Conservation and Recovery Act, 42 U.S.C. 6901 et seq.; Safe Drinking Water Act, 42

§ 124.1

U.S.C. 300(f) et seq.: Clean Water Act, 33 U.S.C. 1251 et seq.: Clean Air Act. 42 U.S.C. 7401 et seq.

SOURCE: 48 FR 14264, Apr. 1, 1983, unless otherwise noted.

Subpart A—General Program Requirements

§124.1 Purpose and scope.

(a) This part contains EPA procedures for issuing, modifying, revoking and reissuing, or terminating all RCRA, UIC, PSD and NPDES "permits" (including "sludge-only" permits issued pursuant to § 122.1(b)(3)), other than RCRA and UIC "emergency permits" (see §§ 270.61 and 144.34) and RCRA "permits by rule" (§ 270.60). The latter kinds of permits are governed by part 270. RCRA interim status and UIC authorization by rule are not "permits" and are covered by specific provisions in parts 144, subpart C, and 270. This part also does not apply to permits issued, modified, revoked and reissued or terminated by the Corps of Engineers. Those procedures are specified in 33 CFR parts 320-327. The procedures of this part also apply to denial of a permit for the active life of a RCRA hazardous waste management facility or unit under § 270.29.

(b) Part 124 is organized into six subparts. Sublipart A contains general procedural requirements applicable to all permit programs covered by these regulations. Subparts B through F supplement these general provisions with requirements that apply to only one or more of the programs. Subpart A describes the steps EPA will follow in receiving permit applications, preparing draft permits, issuing public notice, inviting public comment and holding public hearings on draft permits. Subpart A also covers assembling an administrative record, responding to comments, issuing a final permit decision, and allowing for administrative appeal of the final permit decision. Subpart B is reserved for specific procedural requirements for RCRA permits. There are none of these at present but they may be added in the future. Subpart C contains definitions and specific procedural requirements for PSD permits. Subpart D applies to NPDES permits until an evidentiary hearing begins, when subpart E procedures take over for EPA-issued NPDES permits and EPA-terminated RCRA permits. Subpart F, which is based on the "initial licensing" provisions of the Administrative Procedure Act (APA), can be used instead of subparts A through E in appropriate cases.

(c) Part 124 offers an opportunity for three kinds of hearings: A public hearing under subpart A, an evidentiary hearing under subpart E, and a panel hearing under subpart F. This chart describes when these hearings are available for each of the five permit programs.

HEARINGS AVAILABLE UNDER THIS PART

	Subpan			
Programs	(A)	(E)	(F)	
	Public hearing	Evidentiary hearing	Panel hearing	
RCRA	On draft permit, at Director's discretion or on request (§ 124.12).	(1) Permit termination (RCRA section 3008).	(1) At RA's discretion in lieu of public hearing (§§ 124.12 and 124.111(a)(3)).	
		(2) Will. NPDES evidentiary heaning (§ 124,74(b)(2)).	(2) When consolidated with NPD: S draft permit processed under Suppart F (§ 124.111(a)(1)(i)).	
UIC ,	On draft permit, at Director's discretion or on request (§ 124.12).	With NPDE1 evidentiary hearing (§ 124.74(b)(2)).	(1) At RA's discretion in lieu of public hearing (§§ 124,12 and 124,111(a)(3)).	
			(§ 124.111(a)(1)(i)).	
PSD	On draft permit, at Director's discretion or on request (§ 124.12).	Not available (§ 124.71(c))	When consolidated with NPDES draft permit processed under Subpart F if RA determines that CAA one year deadline will not be violated.	
NPDES (other than general permit).	On draft permit, at Director's discretion or on request (§ 124.12).	(1) On request to challenge any permit condition or van- ance (§ 124.74).	(1) At RA's discretion when first decision on permit or variance request (§ 124.111).	
		(2) At RA's discretion for any 301(h) request (§ 124.64(b)).	(2) A1 RA's discretion when request for evidentiary hearing is granted under 5.124.75(a)(2) (§§.124.74(c)(8) and 124.111(a)(2)).	
			(3) At RA's discretion for any 301(h) request (§ 124.64(b)).	

	Subpart			
Programs	(A)	(E)	(F)	
	Public hearing	Evidentiary hearing	Panel hearing	
NPDES (general permit).	On draft permit, at Director's discretion or on request (5 124.12).	Not available (§ 124.71(a))	At RA's discretion in lieu of public hearing (§ 124.111(a)(3)).	
404		Not available (§ 124.71)	Not available (§ 124.111).	

- (d) This part is designed to allow permits for a given facility under two or more of the listed programs to be processed separately or together at the choice of the Regional Administrator. This allows EPA to combine the processing of permits only when appropriate, and not necessarily in all cases. The Regional Administrator may consolidate permit processing when the permit applications are submitted, when draft permits are prepared, or when final permit decisions are issued. This part also allows consolidated permits to be subject to a single public hearing under § 124.12, a single evidentiary hearing under § 124.75, or a single non-adversary panel hearing under § 124.120. Permit applicants may recommend whether or not their applications should be consolidated in any given case.
- (e) Certain procedural requirements set forth in part 124 must be adopted by States in order to gain EPA approval to operate RCRA, UIC, NPDES, and 404 permit programs. These requirements are listed in §§ 123.25 (NPDES), 145.11 (UIC), 233.26 (404), and 271.14 (RCRA) and signaled by the following words at the end of the appropriate part 124 section or paragraph heading: (applicable to State programs see §§ 123.25 (NPDES), 145.11 (UIC), 233.26 (404), and 271.14 (RCRA)). Part 124 does not apply to PSD permits issued by an approved State.
- (f) To coordinate decisionmaking when different permits will be issued by EPA and approved State programs, this part allows applications to be jointly processed, joint comment periods and hearings to be held, and final permits to be issued on a cooperative basis whenever EPA and a State agree to take such steps in general or in individual cases. These joint processing agreements may be provided in the Memorandum of Agreement developed under §§ 123.24 (NPDES), 145.24 (UIC), 233.24 (404), and 271.8 (RCRA).

[48 FR 14264, Apr. 1, 1983, as amended at 54 FR 9607, Mar. 7, 1989; 54 FR 18785, May 2, 1989]

§124.2 Definitions.

(a) In addition to the definitions given in §§ 122.2 and 123.2 (NPDES), 501.2 (sludge management), 144.3 and 145.2 (UIC), 233.3 (404), and 270.2 and 271.2 (RCRA), the definitions below apply to this part, except for PSD permits which are governed by the definitions in § 124.41. Terms not defined in this section have the meaning given by the appropriate Act.

Administrator means the Administrator of the U.S. Environmental Protection Agency, or an authorized representative.

Applicable standards and limitations means all State, interstate, and federal standards and limitations to which a "discharge," a "sludge use or disposal practice" or a related activity is subject under the CWA, including "standards for sewage sludge use or disposal," "effluent limitations," water quality standards, standards of performance, toxic effluent standards or prohibitions, "best management practices," and pretreatment standards under sections 301, 302, 303, 304, 306, 307, 308, 403, and 405 of CWA.

Application means the EPA standard national forms for applying for a permit, including any additions, revisions or modifications to the forms; or forms approved by EPA for use in "approved States," including any approved modifications or revisions. For RCRA, application also includes the information required by the Director under §§ 270.14 through 270.29 [contents of Part B of the RCRA application].

Appropriate Act and regulations means the Clean Water Act (CWA); the Solid Waste Disposal Act, as amended by the Resource Conservation Recovery Act (RCRA); or Safe Drinking Water Act (SDWA), whichever is applicable; and applicable regulations promulgated under those statutes. In the case of an "approved State program" appropriate Act and regulations includes program requirements.

Consultation with the Regional Administrator (§ 124.62(a)(2)) means review by the Regional Administrator following evaluation by a panel of the technical merits of all 301(k) applications ap-

proved by the Director. The panel (to be appointed by the Director of the Office of Water Enforcement and Permits) will consist of Headquarters, Regional, and State personnel familiar with the industrial category in question.

CWA means the Clean Water Act (formerly referred to as the Federal Water Pollution Control Act of Federal Pollution Control Act Amendments of 1972) Public Law 92-500, as amended by Public Law 95-217 and Public Law 95-576; 33 U.S.C. 1251 et seq.

Director means the Regional Administrator, the State director or the Tribal director as the context requires, or an authorized representative. When there is no approved State or Tribal program, and there is an EPA administered program, Director means the Regional Administrator. When there is an approved State or Tribal program, "Director" normally means the State or Tribal director. In some circumstances, however, EPA retains the authority to take certain actions even when there is an approved State or Tribal program. (For example, when EPA has issued an NPDES permit prior to the approval of a State program, EPA may retain jurisdiction over that permit after program approval: see § 123.1) In such cases, the term "Director" means the Regional Administrator and not the State or Tribal director.

Draft permit means a document prepared under § 124.6 indicating the Director's tentative decision to issue or deny, modify, revoke and reissue, terminate, or reissue a "permit." A notice of intent to terminate a permit and a notice of intent to deny a permit as discussed in § 124.5, are types of "draft permits." A denial of a request for modification, revocation and reissuance or termination, as discussed in § 124.5, is not a "draft permit." A "proposal permit" is not a "draft permit."

Environmental Appeals Board shall mean the Board within the Agency described in § 1.25(e) of this title. The Administrator delegates authority to the Environmental Appeals Board to issue final decisions in RCRA, PSD. UIC, or NPDES permit appeals filed under this subpart, including informal appeals of denials of requests for modification. revocation and reissuance, or termination of permits under Section 124.5(b). An appeal directed to the Administrator, rather than to the Environmental Appeals Board, will not be considered. This delegation does not preclude the Environmental Appeals Board from referring an appeal or a motion under this subpart to the Administrator when the Environmental Appeals Board, in its discretion, deems it appropriate to do so. When an appeal or motion is referred to the Administrator by the Environmental Appeals Board, all parties shall be so notified and the rules in this subpart referring to the Environmental Appeals Board shall be interpreted as referring to the Administrator.

EPA ("EPA") means the United States "Environmental Protection Agency."

Facility or activity means any "HWM facility." UIC "injection well," NPDES "point source" or "treatment works treating domestic sewage" or State 404 dredge or fill activity, or any other facility or activity (including land or appurtenances thereto) that is subject to regulation under the RCRA, UIC, NPDES, or 404 programs.

Federal Indian reservation (in the case of NPDES) means all land within the limits of any Indian reservation under the jurisdiction of the United States Government, notwithstanding the issuance of any patent, and including rights-of-way running through the reservation

General permit (NPDES and 404) means an NPDES or 404 "permit" authorizing a category of discharges or activities under the CWA within a geographical area. For NPDES, a general permit means a permit issued under § 122.28. For 404, a general permit means a permit issued under § 233.37.

Indian Tribe means (in the case of UIC) any Indian Tribe having a federally recognized governing body carrying out substantial governmental duties and powers over a defined area. For the NPDES program, the term "Indian Tribe" means any Indian Tribe, band, group, or community recognized by the Secretary of the Interior and exercising governmental authority over a Federal Indian reservation.

Interstate agency means an agency of two or more States established by or under an agreement or compact approved by the Congress, or any other agency of two or more States having substantial powers or duties pertaining to the control of pollution as determined and approved by the Administrator under the "appropriate Act and regulations."

Major facility means any RCRA, UIC, NPDES, or 404 "facility or activity" classified as such by the Regional Administrator, or, in the case of "approved State programs," the Regional Administrator in conjunction with the State Director.

NPDES means National Pollutant Discharge Elimination System.

Owner or operator means owner or operator of any "facility or activity" subject to regulation under the RCRA, UIC, NPDES, or 404 programs.

Permit means an authorization, license, or equivalent control document issued by EPA or an "approved State" to implement the requirements of this part and parts 122, 123, 144, 145, 233, 270, and 271. "Permit" includes RCRA "permit by rule" (§ 270.60). UIC area permit (§ 144.33), NPDES or 404 "general permit" (§§ 270.61, 144.34, and 233.38). Permit does not include

RCRA interim status (§ 270.70). UIC authorization by rule (§ 144.21), or any permit which has not yet been the subject of final agency action, such as a "draft permit" or a "proposed permit."

Person means an individual, association, pannership, corporation, municipality, State, Federal, or Tribal agency, or an agency or employee there-

RCR4 means the Solid Waste Disposal Act as amended by the Resource Conservation and Recovery Act of 1976 (Pub. L. 94–580, as amended by Pub. L. 95–609, 42 U.S.C. 6901 et seq).

Regional Administrator means the Regional Administrator of the appropriate Regional Office of the Environmental Protection Agency or the authorized representative of the Regional Administrator.

Schedule of compliance means a schedule of remedial measures included in a "permit," including an enforceable sequence of interim requirements (for example, actions, operations, or milestone events) leading to compliance with the "appropriate Act and regulations."

SDWA means the Safe Drinking Water Act (Pub. L. 95-823, as amended by Pub. L. 95-1900; 42 U.S.C. 300f et seq).

Section 404 program or State 404 program or 404 means an "approved State program" to regulate the "discharge of dredged material" and the "discharge of fill material" under section 404 of the Clean Water Act in "State regulated waters."

Site means the land or water area where any "facility or activity" is physically located or conducted, including adjacent land used in connection with the facility or activity.

States means one of the States of the United States, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, the Trust Territory of the Pacific Islands (except in the case of RCRA), the Commonwealth of the Northern Mariana Islands, or an Indian Tribe that meets the statutory enteria which authorize EPA to treat the Tribe in a manner similar to that in which it treats a State (except in the case of RCRA).

State Director means the chief administrative officer of any State, interstate, or Tribal agency operating an approved program, or the delegated representative of the State director. If the responsibility is divided among two or more States, interstate, or Tribal agencies, "State Director" means the chief administrative officer of the State, interstate, or Tribal agency authorized to perform the particular procedure or function to which reference is made.

State Director means the chief administrative officer of any State or interstate agency operating an "approved program," or the delegated representative of the state Director. If responsibility is

divided among two or more State or interstate agencies. "State Director" means the chief administrative officer of the State or interstate agency authorized to perform the particular procedure or function to which reference is made.

UIC means the Underground Injection Control program under Part C of the Safe Drinking Water Act, including an "approved program."

Voriance (NPDES) means any mechanism or provision under section 301 or 316 of CWA or under 40 CFR part 125, or in the applicable "efficient limitations guidelines" which allows modification to or waiver of the generally applicable effluent limitation requirements or time deadlines of CWA. This includes provisions which allow the establishment of alternative limitations based on fundamentally different factors or on sections 301(c), 301(g), 301(h), 301(i), or 316(a) of CWA.

(b) For the purposes of part 124, the term Director means the State Director or Regional Administrator and is used when the accompanying provision is required of EPA-administered programs and of State programs under §§ 123.25 (NPDES), 145.11 (UIC), 233.26 (404), and 271.14 (RCRA). The term Regional Administrator is used when the accompanying provision applies exclusively to EPA-issued permits and is not applicable to State programs under these sections. While States are not required to implement these latter provisions, they are not precluded from doing so, notwithstanding use of the term "Regional Administrator."

(c) The term formal hearing means any evidentiary hearing under subpart E or any panel hearing under subpart F but does not mean a public hearing conducted under § 124.12.

[48 FR 14264, Apr. 1, 1983; 48 FR 30115, June 30, 1983, as amended at 49 FR 25981, June 25, 1984; 53 FR 37410, Sept. 26, 1988; 54 FR 18785, May 2, 1989; 57 FR 5335, Feb. 13, 1992; 57 FR 60129, Dec. 18, 1992; 58 FR 67983, Dec. 22, 1993; 59 FR 64343, Dec. 14, 1994]

§124.3 Application for a permit.

(a) Applicable to State programs, see §§ 123.25 (NPDES), 145.11 (UIC), 233.26 (404), and 271.14 (RCRA). (1) Any person who requires a permit under the RCRA, UIC, NPDES, or PSD programs shall complete, sign, and submit to the Director an application for each permit required under §§ 270.1 (RCRA), 144.1 (UIC), 40 CFR 52.21 (PSD), and 122.1 (NPDES). Applications are not required for RCRA permits by rule (§ 270.60), underground injections authorized by rules (§§ 144.21 through 144.26), NPDES general permits (§ 122.28) and 404 general permits (§ 233.37).

(2) The Director shall not begin the processing of a permit until the applicant has fully complied

- ¹(2) Public notice of any comment period under this paragraph shall identify the issues to which the requirements of § 124.14(a) shall apply.
- (3) On his own motion or on the request of any person, the Regional Administrator may direct that the requirements of paragraph (a)(1) of this section shall apply during the initial comment period where it reasonably appears that issuance of the permit will be contested and that applying the reduirements of paragraph (a)(1) of this section will substantially expedite the decisionmaking process. The notice of the draft permit shall state whenever this has been done.
- (4) A comment period of longer than 60 days will often be necessary in complicated proceedings to give commenters a reasonable opportunity to comply with the requirements of this section. Commenters may request longer comment periods and they shall be granted under § 124.10 to the extent they appear necessary.
- (b) If any data information or arguments submitted during the public comment period, including information or arguments required under § 124.13, appear to raise substantial new questions concerning a permit, the Regional Administrator may take one or more of the following actions:
- (1) Prepare a new draft permit, appropriately modified, under § 124.6:
- (2) Prepare a revised statement of basis under § 124.7. a fact sheet or revised fact sheet under § 124.8 and reopen the comment period under § 124.14; or
- (3) Reopen or extend the comment period under \$124.10 to give interested persons an opportunity to comment on the information or arguments submitted
- (c) Comments filed during the reopened comment period shall be limited to the substantial new questions that caused its reopening. The public notice under § 124.10 shall define the scope of the reopening.
- (d) For RCRA, UIC, or NPDES permits, the Regional Administrator may also, in the circumstances described above, elect to hold further proceedings under subpart F. This decision may be combined with any of the actions enumerated in paragraph (b) of this section.
- (e) Public notice of any of the above actions shall be issued under § 124.10.

[48 FF, 14264, Apr. 1, 1983, as amended at 49 FR 38051, Sept. 26, 1984]

§124.15 Issuance and effective date of permit.

(a) After the close of the public comment period under § 124.10 on a draft permit, the Regional Administrator shall issue a final permit decision (or a decision to deny a permit for the active life of a RCRA hazardous waste management facility or

unit under § 270,29). The Regional Administrator shall notify the applicant and each person who has submitted written comments or requested notice of the final permit decision. This notice shall include reference to the procedures for appealing a decision on a RCRA, UIC, or PSD permit or for contesting a decision on an NPDES permit or a decision to terminate a RCRA permit. For the purposes of this section, a final permit decision means a final decision to issue, deny, modify, revoke and reissue, or terminate a permit.

- (b) A final permit decision (or a decision to deny a permit for the active fire of a RCRA hazardous waste management facility or unit under § 270.29) shall become effective 30 days after the service of notice of the decision unless:
- (1) A later effective date is specified in the decision; or
- (2) Review is requested under § 124.19 (RCRA, UIC, and PSD permits) or an evidentiary hearing is requested under § 124.74 (NPDES permit and RCRA permit terminations); or
- (3) No comments requested a change in the draft permit, in which case the permit shall become effective immediately upon issuance.

J48 FF 14264, Apr. 1, 1985, as umended at 54 FR 9697, Mar. 7, 1989)

§124.16 Stays of contested permit conditions.

- (a) Stays. (1) If a request for review of a RCRA or UIC pennit under § 124.19 or an NPDES permit under § 124.74 or § 124.114 is granted or if conditions of a RCRA or UIC permit are consolidated for reconsideration in an evidentiary hearing on an NPDES permit under §§ 124.74, 124.82 or 124.114, the effect of the contested permit condition; shall be stayed and shall not be subject to judicial review pending final agency action. (No stay of a PSD permit is available under this section.) If the permit involves a new facility or new injection well, new source, new discharger or a recommencing discharger, the applicant shall be without a permit for the proposed new facility, injection well, source or discharger pending final agency action. Sec also § 124.60.
- (2) Uncontested conditions which are not severable from those contested shall be stayed together with the contested conditions. Stayed provisions of permits for existing facilities, injection wells, and sources shall be identified by the Regional Administrator. All other provisions of the permit for the existing facility, injection well, or source shall remain fully effective and enforceable.
- (b) Stays based on cross effects. (1) A stay may be granted based on the grounds that an appeal to the Administrator under § 124.19 of one permit may result in changes to another EPA-issued permit only when each of the permits involved has

been appealed to the Administrator and he or she has accepted each appeal.

- (2) No stay of an EPA-issued RCRA, UIC, or NPDES permit shall be granted based on the staying of any State-issued permit except at the discretion of the Regional Administrator and only upon written request from the State Director.
- (c) Any facility or activity holding an existing permit must:
- (1) Comply with the conditions of that permit during any modification or revocation and reissuance proceeding under § 124.5; and
- (2) To the extent conditions of any new pennit are stayed under this section, comply with the conditions of the existing permit which correspond to the stayed conditions, unless compliance with the existing conditions would be technologically incompatible with compliance with other conditions of the new permit which have not been stayed.

§ 124.17 Response to comments.

- (a) (Applicable to State programs, see §§ 123.25 (NPDES), 145.11 (UIC), 233.26 (404), and 271.14 (RCRA).) At the time that any final permit decision is issued under § 124.15, the Director shall issue a response to comments. States are only required to issue a response to comments when a final permit is issued. This response shall:
- (1) Specify which provisions, if any, of the draft permit have been changed in the final permit decision, and the reasons for the change; and
- (2) Briefly describe and respond to all significant comments on the draft permit or the permit application (for section 404 permits only) raised during the public comment period, or during any hearing.
- (b) For EPA-issued permits, any documents cited in the response to comments shall be included in the administrative record for the final permit decision as defined in § 124.18. If new points are raised or new material supplied during the public comment period, EPA may document its response to those matters by adding new materials to the administrative record.
- (c) (Applicable to State programs, see §§ 123.25 (NPDES), 145.11 (UIC), 233.26 (404), and 271.14 (RCRA).) The response to comments shall be available to the public.

§124.18 Administrative record for final permit when EPA is the permitting authority.

- (a) The Regional Administrator shall base final permit decisions under § 124.15 on the administrative record defined in this section.
- (b) The administrative record for any final permit shall consist of the administrative record for the draft permit and:

- (1) All comments received during the public comment period provided under § 124.10 (including any extension or reopening under § 124.14):
- (2) The tape or transcript of any hearing(s) held under § 124,12:
- (3) Any written materials submitted at such a hearing:
- (4) The response to comments required by §124.17 and any new material placed in the record under that section:
- (5) For NPDES new source permits only, final environmental impact statement and any supplement to the final EIS:
- (6) Other documents contained in the supporting file for the permit; and
 - (7) The final permit.
- (c) The additional documents required under paragraph (b) of this section should be added to the record as soon as possible after their receipt or publication by the Agency. The record shall be complete on the date the final permit is issued.
- (d) This section applies to all final RCRA. UIC. PSD, and NPDES permits when the draft pennit was subject to the administrative record requirements of § 124.9 and to all NPDES permits when the draft permit was included in a public notice after October 12, 1979.
- (c) Material readily available at the issuing Regional Office, or published materials which are generally available and which are included in the administrative record under the standards of this section or of § 124.17 ("Response to comments"), need not be physically included in the same file as the rest of the record as long as it is specifically refurred to in the statement of basis or fact sheet or in the response to comments.

§124.19 Appeal of RCRA, UIC, and PSD permits.

(a) Within 30 days after a RCRA, UIC, or PSD final permit decision (or a decision under § 270.29 to deny a permit for the active life of a RCRA hazardous waste management facility is unit) has been issued under § 124.15, any person who filed comments on that draft permit or panicipated in the public hearing may petition the Environmental Appeals Board to review any condition of the permit decision. Any person who failed to file comments or failed to participate in the public hearing on the draft permit may petition for administrative review only to the extent of the changes from the draft to the final permit decision. The 30-day period within which a person may request review under this section begins with the service of notice of the Regional Administrator's action unless a later date is specified in that notice. The petition shall include a statement of the reasons supporting that review, including a demonstration that any issues being raised were raised during the public comment period (including any public hearing) to the extent required by these regulations and when appropriate, a showing that the condition in question is based on:

- (1) A finding of fact or conclusion of law which is clearly erroneous, or
- (2) An exercise of discretion or an important policy consideration which the Environmental Appeals Board should, in its discretion, review.
- (b) The Environmental Appeals Board may also decide on its initiative to review any condition of any RCRA, UIC, or PSD permit issued under this part. The Environmental Appeals Board must act under this paragraph within 30 days of the service date of notice of the Regional Administrator's action.
- (c) Within a reasonable time following the filing of the petition for review, the Environmental Appeals Board shall issue an order granting or denying the petition for review. To the extent review is denied, the conditions of the final permit decision become final agency action. Public notice of any grant of review by the Environmental Appeals Board under paragraph (a) or (b) of this section shall be given as provided in § 124.10. Public notice shall set forth a briefing schedule for the appeal and shall state that any interested person may file an amicus brief. Notice of denial of review shall be sent only to the person(s) requesting review.
- (d) The Environmental Appeals Board may defer consideration of an appeal of a RCRA or UIC permit under this section until the completion of formal proceedings under subpart E or F relating to an NPDES permit issued to the same facility or activity upon concluding that:
- (1) The NPDES permit is likely to raise issues relevant to a decision of the RCRA or UIC appeals;
- (2) The NPDES permit is likely to be appealed: and
- (3) Either: (i) The interests of both the facility or activity and the public are not likely to be materially adversely affected by the deferral: or
- (ii) Any adverse effect is outweighed by the benefits likely to result from a consolidated decision on appeal.
- (e) A petition to the Environmental Appeals Board under paragraph (a) of this section is, under 5 U.S.C. 704, a prerequisite to the seeking of judicial review of the final agency action.
- (f)(1) For purposes of judicial review under the appropriate Act, final agency action occurs when a final RCRA, UIC. or PSD permit is issued or denied by EPA and agency review procedures are exhausted. A final permit decision shall be issued by the Regional Administrator:

- (i) When the Environmental Appeals Board issues notice to the parties that review has been denied:
- (ii) When the Environmental Appeals Board issues a decision on the merits of the appeal and the decision does not include a remand of the proceedings; or
- (iii) Upon the completion of remand proceedings if the proceedings are remanded, unless the Environmental Appeals Board's remand order specifically provides that appeal of the remand decision will be required to exhaust administrative remedies.
- (2) Notice of any final agency action regarding a PSD permit shall promptly be published in the FEDERAL REGISTER.
- (g) Motions to reconsider a final order shall be filed within ten (10) days after service of the final order. Every such motion must set forth the matters claimed to have been erroneously decided and the nature of the alleged errors. Motions for reconsideration under this provision shall be directed to, and decided by, the Environmental Appeals Board. Motions for reconsideration directed to the administrator, rather than to the Environmental Appeals Board, will not be considered, except in cases that the Environmental Appeals Board has referred to the Administrator pursuant to § 124.2 and in which the Administrator has issued the final order. A motion for reconsideration shall not stay the effective date of the final order unless specifically so ordered by the Environmental Appeals Board.

[48 FR 14264, Apr. 1, 1983, as amended at 54 FR 9607, Mar. 7, 1989; 57 FR 5335, Feb. 13, 1992]

§124.20 Computation of time.

- (a) Any time period scheduled to begin on the occurrence of an act or event shall begin on the day after the act or event.
- (b) Any time period scheduled to begin before the occurrence of an act or event shall be computed so that the period ends on the day before the act or event.
- (c) If the final day of any time period falls on a weekend or legal holiday, the time period shall be extended to the next working day.
- (d) Whenever a party or interested person has the right or is required to act within a prescribed period after the service of notice or other paper upon him or her by mail, 3 days shall be added to the prescribed time.

§124.21 Effective date of part 124.

(a) Except for paragraphs (b) and (c) of this section, part 124 will become effective July 18, 1980. Because this effective date will precede the processing of any RCRA or UIC permits, part 124 will apply in its entirety to all RCRA and UIC permits.



BLACK & VEATCH

8400 Ward Parkway P.O. Box 8405 Kansas City, Missouri 64114 USA

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Black & Veatch Corporation

Tel: (913) 458-2000

MAR 25 1999

Kissimmee Utility Authority Cane Island – Unit 3

BUREAU OF AIR REGULATION

B&V Project 59140 B&V File 32.0204/32.0409 March 24, 1999

Mr. Clair H. Fancy, P.E. Chief, Bureau of Air Regulation Florida Dept. of Envirnomental Protection Twin Towers Office Building 2600 Blair Stone Road Tallahassee, FL 32399-2400 Mr. R. Douglas Neely Chief, Air and Radiation Technology Branch Air, Pedicides, and Toxics Management Division U.S. Environmental Protection Agency – Region 4 Atlanta Federal Center 61 Forsyth Street Atlanta, GA 30303-8960

Subject: BACT Analysis

Attention: Mr. Fancy Mr. Neely

Thank you for the opportunity to meet in Atlanta on March 4, 1999, to discuss the Best Available Control Technology (BACT) Determination for the control of NO_x emissions relevant to the Notice of Intent (NOI) to issue a Prevention of Significant Deterioration (PSD) Air Permit for Kissimmee Utility Authority's Cane Island Power Park Unit 3 (250 MW) combined cycle combustion turbine (CCCT). In the NOI (issued on January 8, 1999 for a 30 day public comment period) to issue the PSD Air Construction Permit for the aforementioned emission source, the FDEP concluded in their BACT determination that a 9 ppm NO_x emission level achieved through dry low NO_x (DLN) combustion technology is justifiable as BACT. However, the March 4 meeting was convened in response to EPA's letter of February 2, 1999, which suggested that the FDEP reconsider its 9 ppm dry low NO_x (DLN) BACT determination for Unit 3 and provide site-specific conditions that make selective catalytic reduction (SCR) less feasible for this project as compared to other nearby and similar facilities.

The purpose of this letter is to summarize the context of discussions and presentations made by representatives of Black & Veatch, General Electric, and the Department of Energy during the March 4th meeting, as well as to specifically identify the site-specific conditions associated with the KUA project that make SCR for NO, control less desirable.

Project Description

KUA and FMPA are proposing to develop a new electrical power generating unit at the Cane Island Power Park near Intercession City in Osceola County. The Power Park currently includes a 40 megawatt (MW) simple cycle combustion turbine (SCCT) unit (Unit 1) and a 120 MW CCCT unit (Unit 2). Cane Island Unit 3 will be a CCCT rated at 250 MW (nominal). The combustion turbine generator will be rated at approximately 150 MW; the steam turbine generator will be rated at approximately 100 MW. The new unit will fire natural gas as the primary fuel and No. 2 fuel oil (0.05 percent sulfur) will serve as backup fuel. The proposed construction start date is Fall 1999. The proposed commercial operation date is June 2001.

The size of the steam turbine generator will require the unit to be certified under the Florida Electrical Power Plant Siting Act (Siting Act). The Siting Act review process evaluates the need for the new power plant and the potential impacts on human health, welfare, and environmental resources. The participation of federal, state, and local agencies in the certification process is required under the Siting Act. The FDEP administers and coordinates the certification process, which typically requires about 14 months to complete. The certification process concludes with approval (certification) of the power plant and associated facilities by the Siting Board.

BACT Definition and Regulatory Setting

It is important that regulators and applicants alike recall that the intent of the BACT process is to establish an emission limitation on a case-by-case basis, taking into account energy, environmental, and economic impacts, that are achievable through production processes, available methods, systems, and techniques, including innovative fuel combustion techniques. In fact, the process requires that the beneficial and adverse impacts of the control option be evaluated, and that specific control options may be eliminated on a case-by-case (or site-specific) basis either because the control method is infeasible, or may have unacceptable energy, economic, or environmental impacts.

Certainly, there are competing environmental considerations in suggesting that SCR should be used to achieve relatively small reductions of NO_x, when significant negative environmental impacts may arise from its use. This is particularly true of the BACT case of KUA's Unit 3, which will use GE's 7FA combustion turbine with guaranteed NO_x emission levels of 9 ppm using DLN technology. The BACT determination in this case is truly a balancing act between the beneficial and adverse impacts of using SCR to control NO_x emissions from 9 to 3.5 ppm.

It is our belief that the BACT scale is uneven when considering the weight of adverse impacts associated with SCR systems against the relatively small reductions of NO_x that are realized, particularly considering the regulatory setting of Florida. The regulatory considerations include the following:

- The entire State of Florida is in attainment for all regulated criteria pollutants. As such, BACT control levels (not lowest achievable emission levels [LAER]) are applicable to the project. The Brooklyn Navy Yard Cogeneration Project in New York has the most stringent permitted NO_x emission limit for a gas fired CT at 3.5 ppm. The CT emission limit is noted in the BACT/LAER Clearinghouse as being representative of LAER at the time of the PSD permit application.
- In 1997, the EPA proposed NO_x reduction from 22 of a 37 state group known as the Ozone Transport Assessment Group (OTAG) to limit NO_x emissions as a means of decreasing ozone transport across state boundaries. Florida was specifically excluded from the stringent OTAG regulations. Florida's exclusion from OTAG differentiates the area from other eastern states included in OTAG having significant NO_x and ozone problems.
- With the exception of the FPC Hines project, which is temporarily using SCR because the Westinghouse DLN burners are not making 12 ppm, no CCCTs in Florida employ SCR.

The aforementioned regulatory considerations are paramount when faced with the unsubstantiated (not case-by-case) ratcheting down of NO_x emission control levels in a non-OTAG attainment area.

Environmental Considerations

Because of inherent inefficiencies in the SCR design, a small amount of NH₃ does not participate in NO_x reduction and instead "slips by" the catalyst and becomes an additional pollutant in the exhaust

stream discharged into the atmosphere. It is estimated that the magnitude of NH₃ slip is approximately 10 ppm on average. While some systems operate at lower slip levels, NH₃ slip is expected to be higher when the NO_x entering the catalyst bed is already at 9 ppm. Essentially, more NH₃ injection is required in order to find the fewer NO_x molecules in the exhaust to demonstrate compliance with ultra-low NO_x levels such as 3.5 ppm. This can result in higher NH₃ slip levels. In these cases, the impact of NH₃ slip may be at least as or more detrimental to the environment than the impact of NO_x emissions at 9 ppm.

In addition to NH₃ slip, some of the unreacted NH₃ reacts with sulfur in the fuel to form ammonia salts such as ammonium bisulfate. This is particularly true of sulfur bearing fuels such as distillate, but occurs to a limited extent with sulfur odorants added to natural gas. Because of this reaction, increased particulate matter (PM2.5 and PM10) emissions can be expected with the addition of an SCR. Aside from the health effects associated with PM, the increase in fine particulates is a consideration with respect to recent regional haze legislation for sensitive Class I areas, as discussed later in this letter.

Apart from the atmospheric emissions of NH₃ and increased PM associated with SCR systems, NH₃ is regulated as a hazardous material under EPA Risk Management Plan (40 CFR 68) and OSHA Process Safety Management (29 CFR 1910). These programs will require a risk management prevention plan, process hazard analysis, prevention program, and an emergency response plan. NH₃ is also listed under Title III, Section 302, of the Superfund Amendments Reauthorization Act (SARA) (Superfund) list of Extremely Hazardous Materials.

The need to have ammonia onsite for the SCR results in additional public relations concerns from neighboring residents regarding storage, transportation, and use of NH₃. Beginning in June of 1999, electronic filings of the RMPs will begin, alerting the public to the storage, use, and potential for accidental release of hazardous chemicals such as ammonia. The most notable neighbor to the Cane Island Power Park is Walt Disney whose property adjoins the Cane Island Power Park. Disney's Celebration City Development is only approximately 2 miles from Cane Island Power Park. The predominance of the tourist industry in Central Florida places a high importance on public relations.

The storage and transportation of ammonia to the site is another adverse impact of requiring SCR. A 15 day supply of approximately 35,000 gallons will be stored onsite. Delivery of ammonia to the site poses an even greater risk of accident resulting in health impacts. Approximately 20,000 gallons of ammonia would be used weekly with approximately 50 deliveries scheduled per year by tanker truck. The CSX mainline railroad adjoins the southern boundary of the site. Tanker truckers are required to cross the tracks at the plant access road. On November 30, 1993, an Amtrak train hit the Unit 1 combustion turbine at a speed of over 70 mph while it was crossing the tracks injuring over 60 people. The recent Amtrak accident near Chicago further illustrates the crossing risks. In addition, ammonia onsite results in worker safety issues, liability and insurance exposure, as well as potentially increased insurance costs. Additional training of personnel and recordkeeping will also be required. It is also difficult to find qualified contractors to work on ammonia handling and storage facilities. Orlando Utilities Commission recently had an extremely difficult time obtaining contractors to perform maintenance on its ammonia handling and storage facilities associated with the SCR on their Stanton Unit 2 coal unit.

Additional negative impacts of SCR are associated with catalyst replacement. Currently, manufacturers will only provide a 3 year guarantee for catalyst resulting in the need for periodic replacement. On average, 10 tons of catalyst will require replacement annually. The spent catalyst contains vanadium pentoxide, hydrocarbons, and sulfur. Vanadium pentoxide is listed under Title III, Section 302, of the Superfund Amendments Reauthorization Act (SARA) (Superfund) list of Extremely Hazardous Materials, and must be disposed of as a hazardous waste. Even if manufacturer's take back spent

catalyst and recycle portions of it, ultimately the disposal of the catalyst simply transfers the NO_x air pollution problem to a long-term solid waste disposal problem of hazardous material.

Another disadvantage of the SCR is the loss of generating capacity due to the higher back pressure. It is estimated that 350 kW will be lost going from 9 ppm with dry low NO_x combustors to 3.5 ppm with an SCR. The loss of capacity results in the capacity being made up from higher emitting existing units and, at some point in time, the construction of new units. The increased back pressure also results in an increase in the heat rate of the unit resulting in an increase in the amount of fuel burned and an increase in all emissions on a per kWh basis.

The SCR system produces byproducts in the exhaust system that can coat boiler tubes in the HRSG, resulting in decreased plant reliability, efficiency, and corrosion. Ammonium bisulfate, a white sticky very corrosive substance, forming on and coating heat transfer surfaces, reduces the thermal efficiency. Although there are many CCCTs using SCR that are permitted to use both distillate fuel oil and natural gas, when any sulfur bearing fuel is used, NH₃ salt formation, catalyst poisoning, and boiler damage occur without exception. These costs are not typically included in BACT determinations, but may result in significant costs including labor costs involved with periodic washing of heat transfer surfaces, and premature catalyst failure and subsequent early replacement. Washing agents and residue are also treated as hazardous materials. When there is potential to burn fuel oil for 500 hours or more per year, General Electric recommends design changes to the HRSG to help accommodate the ammonium bisulfate fouling and subsequent washing. These changes increase the cost of the HRSG approximately 25 percent. These additional HRSG costs were not included in the applicant's BACT analysis, but would result in higher costs per ton of NO_x removed.

The addition of an SCR requires associated equipment such as NH₃ pumps and vaporizers, which are high maintenance items. Maintenance on these items along with the time required for catalyst replacement will increase outage time resulting in higher generation costs and increased emissions from replacement power.

Uncertainties and statistical variances in NO_x emissions related to instrumentation, methodology, calibration, calibration gas availability, sampling errors, exhaust flow, ammonia slip bias, corrections to 15 percent O_2 and ambient conditions all result in noise that is approximately equal to "low NO_x " limits such as 2.5-3.5 ppm. NH_3 bias can result in additional NO_x being read (tricks the monitor to error in favor of NO_x). Fallout in the sampling line sensor may also bias the measurement.

The dry low NO_x combustors being proposed with a guarantee of 9 ppm have some inherent margin in the emission level. The DLN-2 combustors on KUA's Unit 2 (7EA, 120 MW CCCT) are guaranteed at 15 ppm, but are achieving 6-8 ppm. The DLN-2.6 combustors at Fort St. Vrain, CO (7EA unit, like Unit 3), are demonstrating 9 ppm and typically exhibit emissions between 4 and 8 ppm. Any operation below the 9 ppm guarantee increases the cost per ton of NO_x removed and decreases the net tons per year of NO_x removed with the SCR. Performance guarantees below 9 ppm are expected in the future.

The Cane Island Power Park maintains a delicate environmental balance through conservation easements. The literature indicates that normal emissions of NO_x at 9 ppm with dry low NO_x combustors, or NO_x and ammonia at 3.5 with SCR are significantly below the threshold at which any identifiable impact occurs on plants and animals. Accidental releases of ammonia, however, would be sufficient to cause impacts on plants and animals including the threatened and endangered species such as the gopher tortoise and Florida mouse, which exist onsite.

From an air quality perspective, the site is already meeting state and federal air quality standards, and the maximum predicted impact from the proposed operation of Unit 3 is well below the PSD SILs. In

other words, the project does not threaten existing air quality and does not require more stringent NO_x levels, not to mention the collateral increase in PM and NH_3 emissions, to achieve a small amount of additional control of NO_x . The predicted impacts of NO_x are much less than SILs and NAAQS. As a peninsula, the air is sufficiently unstable to disperse pollutants. This, along with the easterly trade winds and near tropical flow, greatly reduces the general pollution threat of the state.

Cane Island Unit 3 will have a beneficial impact on NO_x emissions in the state by displacing the output from existing units with higher NO_x emissions. KUA is currently in the process of developing a model of the generation in all of peninsular Florida, which will quantify the NO_x reduction peninsular-wide from the installation of Cane Island Unit 3. KUA anticipates presenting the results of the model during the Site Certification environmental hearing.

KUA believes that the appropriate manner to evaluate the cost of going from 9 ppm with dry low NO_x combustors to 3.5 ppm with SCR is to look at the net reduction in emissions. The following table presents that analysis:

	3.5 ppm	<u>9 ppm</u>
Total annual cost	\$867,000	\$0
NO _x and NH ₃ emissions	206 tpy	260 tpy
Incremental reduction	56 tpy	Base
Incremental cost increase	\$867,000	Base
Incremental NO _x removal cost	\$16,056/ton	

As shown on this basis, the \$/ton removed is clearly above BACT thresholds.

In summary, KUA believes that requiring SCR to 3.5 ppm on a combustion turbine that achieves 9 ppm using dry low NO_x combustors is not required as BACT for the specific case of Cane Island Unit 3, considering the associated energy, environmental, and economic impacts.

Very truly yours,

BLACK & VEATCH CORPORATION

Mike Sollys

Myron R. Rollins

rds cc:

A.K. Sharma, KUA

TO:

Secretary Struhs

Assistant Secretary Kirby Green

MAD 1 M 4000

RECEIVED

FROM:

Buck Oven 9439

MAR 17 1999

DATE:

March 16, 1999

BUREAU OF AIR REGULATION

SUBJECT:

NOx Control/BACT for Cane Island Unit 3 and Duke/New Smyrna

The Department is currently finalizing a Staff Analysis Reports (SAR) for two power plant sites, Cane Island Power Park and Duke New Smyrna, pursuant to the Florida Electric Power Plant Siting Act. The Act requires the Department to file the SAR with the Administrative Law Judge and all parties by March 31st for Duke and April 2nd for Cane Island. We have a potential disagreement with EPA on the NOx emission limit that needs to be resolved prior to finalizing the SAR which includes the draft PSD. We need input from Senior Management try to resolve our position on this. It is my understanding that the attorney

The United States Environmental Protection Agency (EPA) submitted comments on the Draft Prevention of Significant Deterioration (PSD) Permits to the Department's Bureau of Air Regulation by letter in February. The letter contained a suggestion that the State reconsider the BACT (Best Available Control Technology) decision for NO_x (Nitrogen Oxides) for the proposed Cane Island and Duke projects. They also requested that the permits not be issued until a consensus is reached on the NO_x BACT analysis. The draft PSD permit has been released to the public and EPA and noticed as required by s. 403.507(3), F.S. EPA's letter was in response to this draft permit. A copy of the EPA letter is attached.

Representatives of the Bureau of Air Regulation, Cane Island (Kissimmee Utility Authority), Duke, GE and others met with EPA on March 4. An effort was made by the applicants technical engineers and the prospective vendor to convince EPA that an emission rate of 3.5 ppm with SCR was not appropriate or necessary. EPA has not changed their position. Do we side with the applicants against EPA or do we support EPA on this matter?

It is my understanding that Tasha Buford an attorney representing Kissimmee Utility Authority is seeking to discuss this matter with Secretary Struhs. We would like an opportunity to discuss this with the Secretary or Assistant Secretary.

Attach:

cc: Howard Rhodes
Clair Fancy
Al Linero
Scott Goorland
Pat Comer

CC: J. Heron, BAR



RECEIVED

8400 Ward Parkway, P.O. Box No. 8405, Kansas City, Missouri 64114, (913) 458-2000

MAR 17 1999

BUREAU OF AIR REGULATION

Kissimmee Utility Authority Cane Island Unit 3

B&V Project 59140.030 B&V File 14.0204 March 10, 1999

United States Environmental Protection Agency Region 4 Atlanta Federal Center 61 Forsyth Street Atlanta, Georgia 30303-8960

P50-F1-254

Subject: Requested Information

Attention: Mr. R. Douglas Neeley

Chief

Air Radiation Technology Branch

Air, Pesticides, and Toxics Management Division

Gentlemen:

We enjoyed the opportunity to meet with you last Thursday. Enclosed is a set of the Site Certification Application, which includes the Need for Power Application. Also is enclosed is the side by side comparison of the busbar cost with and without SCR at 3.5 ppm $\rm NO_x$ as you requested. If you have any questions, please give me a call at 913-458-7432.

Very truly yours,

hy Rolli

BLACK & VEATCH

Myron Rollins

Cc: Al Linero Ben Sharma Ken VanAssenderp

Tasha Buford

KUA Cane Island 3 Busbar Analysis (2001)

	Cane Island Unit 3	Cane Island Unit 3 with SCR
Capital Cost		
Capital Cost of the Plant	9,640,490 ⁽¹⁾	9,814,740 ⁽²⁾
Capital Cost of SCR	0	153,474 ⁽³⁾
Lost Capacity with SCR	0	12,889 ⁽⁴⁾
Fixed O&M		
Cane Island Unit 3 Fixed Costs	595,020 ⁽⁵⁾	595,020 ⁽⁵⁾
Variable O&M		(2)
Cane Island Unit 3 Variable Costs	5,172,278 ⁽⁶⁾	5,172,278 ⁽⁶⁾
SCR Variable Costs	0	722,000 ⁽⁷⁾
Fuel Costs		
Cane Island Unit 3 Fuel Costs	38,259,364 ⁽⁸⁾	38,259,364 ⁽⁸⁾
Total Annual Costs (\$)	53,667,152	54,729,765
Total Annual Generation (MWH)	1,834,638 ⁽⁹⁾	1,832,186 ⁽¹⁰⁾
Busbar Cost (\$/MWH)	29.25	29.87

- (1) \$117,566,955 (capital Cost from Volume 1A of page 2-8 of Need for Power Application) * 0.082 (Fixed charge rate from page 4-1 of Volume 1B of Need for Power Application)
- (2) [\$117,566,955 + (8,500,000*0.25)]*0.082 (Addition HRSG Cost for SCR)
- (3) 1,606,000 (Capital Cost of SCR equipment) * 0.082
- (4) 350 (Lost capacity due to higher exhaust pressure) * 449.082 (\$/kw cost of generation) * 0.082 (fixed charge rate)
- (5) 2.08 (Fixed Operating Costs of Cane Island 3 in 98 dollars \$/kW-yr) * 1.030^3 (escalation to 2001 dollars) * 261,792 (output of the unit KW)
- (6) 2.58 (Variable Operating Costs of Cane Island 3 in 98 dollars \$/MWh) * 1.030^3 (escalation to 2001 dollars) * 261,792 (output of the unit KW) * 0.80 (anticipated capacity factor of the unit) * 8760 (hours in a year)
- (7) 722,000 (Variable Operating Costs of the SCR from presentation to EPA)
- (8) 261.792* (Cane Island 3 Ouptut MW) * 6,815 (Cane Island 3 Full Load Heat Rate Btu/kWh) * 0.80 (anticipated capacity factor of unit) * 8760 (hours in a year) * 3.06 (Delivered Natural Gas Price in 2001)
- (9) 261.792* (Cane Island 3 Ouptut MW) * 0.80 (anticipated capacity factor of unit) * 8760 (hours in a year)
- (10) 261.442* (Cane Island 3 Ouptut MW) * 0.80 (anticipated capacity factor of unit) * 8760 (hours in a year)



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

BUREAU OF REGULATION

4APT-ARB

LEB 17 1999

Mr. A. A. Linero, P.E. Administrator New Source Review Section Florida Department of Environmental Protection 2600 Blair Stone Road Tallahassee, Florida 32399-2400 **SECEINED**

SUBJECT:

Request for Approval of a Custom Fuel Monitoring Schedule for Kissimmee

Utility Authority (KUA), Cane Island Unit 3

050-F1-254

Dear Mr. Linero:

Thank you for your letter dated January 12, 1999, regarding the use of a custom fuel monitoring schedule for KUA Cane Island Unit 3. KUA will operate a natural gas fired combined cycle facility subject to 40 C.F.R. Part 60, Subpart GG - Standards of Performance for Stationary Gas Turbines. As requested, Specific Conditions 46-50 have been reviewed. The Environmental Protection Agency (EPA), Region 4 has concluded that the use of acid rain NO_X continuous emission monitoring system (CEMS) for demonstrating compliance, as described in Specific Conditions 46-48, is acceptable. Region 4 has also concluded that the custom fuel monitoring schedule proposed in Specific Condition 49 and the fuel oil monitoring schedule described in Specific Condition 50 are both acceptable.

According to 40 C.F.R. 60.334(b)(2), owners and operators of stationary gas turbines subject to Subpart GG are required to monitor fuel nitrogen and sulfur content on a daily basis if a company does not have intermediate bulk storage for its fuel. 40 C.F.R. 60.334(b)(2) also contains provisions allowing owners and operators of turbines that do not have intermediate bulk storage for their fuel to request approval of custom fuel monitoring schedules that require less frequent monitoring of fuel nitrogen and sulfur content.

Region 4 reviewed Specific Condition 49, which allows SO₂ emissions to be quantified using procedures in 40 C.F.R. 75 Appendix D in lieu of daily sampling as required by 40 C.F.R. 60.334(b). Since the specific limitations listed in the permit condition are consistent with previous determinations, we have concluded that the use of this custom fuel monitoring schedule is acceptable.

Specific Conditions 46-48 involve the method used to monitor nitrogen oxides (NO_X) excess emissions. Under the provisions for 40 C.F.R. 60.334(c)(1), the operating parameters used to identify NO_X excess emissions for Subpart GG turbines are water-to-fuel injection rates and fuel nitrogen content. As an alternative to monitoring NO_X excess emissions using these

parameters, KUA is proposing to use a NO_X CEMS that is certified for measuring NO_X emissions under 40 C.F.R. Part 75. Based upon a determination issued by EPA on March 12, 1993, NO_X CEMS can be used to monitor excess emissions from Subpart GG turbines if a number of conditions specified in the determination are met and included in the permit condition.

Specific Conditions 46 and 47 address the potential for correcting results to ISO standard day conditions. The basis for this requirement is that, under the provisions of 40 C.F.R. 60.335(c), NO_x results from performance tests must be converted to ISO standard day conditions. As an alternative to continuously correcting results to ISO standard day conditions, KUA plans to keep records of the data needed to make this conversion, so that NO_x results could be calculated on an ISO standard day condition basis anytime at the request of EPA or the Florida DEP. This approach is acceptable, since the construction permit contains NO_x limits that are more stringent than those in Subpart GG, and compliance with Subpart GG for these units would be a concern only in cases when a turbine is in violation of the NO_x limits in its permit.

Finally, Specific Condition 50 addresses the monitoring schedule for fuel oil. According to 40 C.F.R. 60.334(b)(1), the nitrogen and sulfur content of the fuel oil must be monitored each time a new shipment of fuel oil is transferred to bulk storage. KUA is proposing to use the fuel analysis provided by the fuel vendor instead of sampling each shipment directly. This approach is acceptable, since the specific condition states that the fuel vendor's analyses will comply with the test method requirements of 40 C.F.R. 60.335(d).

If you have any questions regarding the determination provided in this letter, please call Katy Forney of my staff at 404-562-9130.

Sincerely yours,

R. Douglas Neeley

Chief

Air and Radiation Technology Branch

Air, Pesticides and Toxics Management Division

CC: D. Heron, BAR M. Halpin, BAR B. Oven, PPS CD



RECEIVED

FEB 15 1999

8400 Ward Parkway, P.O. Box No. 8405, Kansas City, Missouri 64114, (913) 458-2000

BUREAU OF AIR REGULATION

Kissimmee Utility Authority Cane Island Unit 3

Black & Veatch Project: 59140 Black & Veatch File: 14.0204

February 12, 1999

Mr. Zigmond F. Biernacki General Electric International P.O. Box 10577 Tampa, FL 33679

Subject: Cane Island Unit 3 BACT

Dear Mr. Biernacki:

The EPA has issued the attached letter dated February 2, 1999 commenting on Kissimmee Utility Authority's PSD Permit indicating the need for SCR at 3.5 ppm. The FDEP had agreed with the KUA that 9 ppm NOx dry was appropriate for BACT. Al Linero of FDEP has organized a meeting with the EPA in Atlanta at 9:30 a.m. on March 4, 1999 to discuss the issue. The purposed list of people attending the meeting include:

Black & Veatch – Myron Rollins, Tim Hillman & Diane Fisher EPA - C. Greg Worley, Doug Neely, Keith Goeff FDEP – Al Linero & Clair Fancy DOE Advanced Turbine Program - (Abbie Layne)

Al Linero would like someone from General Electric to also attend. He suggested Joel Chalfin. I suggest that you call Al Linero directly to discuss the proposed contents of General Electric's presentation.

We have also tentatively scheduled a strategy/practice session in Tallahassee for February 24, 1999. We are also coordinating with Duke - New Smyrna since they are expecting a similar letter.

I will call you in the near future to further discuss General Electric's presentation.

My Alli

Myron Rollins

Attachment

cc:

Al Linero Ben Sharma Don Schultz





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

FEB U 2 1999

4APT-ARB

Mr. Clair H. Fancy, P.E.
Chief
Burcau of Air Regulation
Florida Department of Environmental
Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

DEFARTMENT OF
ENVIRONMENTAL PROTECTION
FEB EPARTMENT OF
ENVIRONMENTAL PROTECTION
FEB 0 5 1999
SITING COORDINATION

SUBJ: Draft PSD Permit for Kissimmee Utility Authority, Cane Island Power Park, Intercession City, Florida (PSD-FL-254)

Dear Mr. Fancy:

Thank you for your letter dated January 7, 1999, submitting a preliminary determination and draft Prevention of Significant Deterioration (PSD) permit for the above referenced facility. The Kissimmee Utility Authority (KUA), Cane Island Power Park currently includes a nominal 40 MW simple cycle combustion turbine (Unit 1) and a nominal 120 MW combined cycle combustion turbine with heat recovery steam generator (HRSG) and steam turbine (Unit 2). The proposed new unit (Unit 3) will be a nominal 250 MW combined cycle plant. The new unit will include a nominal 167 MW General Electric Model 7FA combustion turbine (CT) electricai generator, which will fire natural gas as the primary fuel and No. 2 distillate fuel oil as a backup fuel (up to 720 hr/yr). Other major equipment associated with Unit 3 will include a supplementally fired heat recovery steam generator (HRSG), an 80-90 MW steam turbineelectrical generator, a 44 mmBtu/hr heat input natural gas-fired duct burner, and a 1,000,000 gallon fuel oil storage tank. The project also includes a 130 foot exhaust stack for combined cycle operation and a 100 foot bypass stack for simple cycle operation. KUA intends to operate the unit in simple cycle mode during periods when the HRSG is not operational or when electrical demand reakes it uneconomical to operate the HRSG. The draft permit allows Unit 3 to operate up to 8,760 hours per year in either simple cycle or combined cycle mode. Emissions from the proposed project are above the significance thresholds requiring PSD review for NOx, CO, PM/PM₁₀, and VOCs.

The proposed best available control technology (BACT) emission limits for the facility are based on the operation of Unit 3 as a combined cycle CT/HRSG or as a simple cycle CT. The CT will be equipped with dry low NO_x (DLN) combustors, and low NO_x burners will be installed on the duct burner. A water injection system will be installed for use when No. 2 fuel

the CT. The proposed BACT NO, emission limits with the CT operating and the duct burner turned off are 9 ppmvd at 15% oxygen (24-hr block average) during natural gas-fired operation of the CT and 42 ponced during fuel oil-fired operation of the CT. The proposed NO_x emission limits with both the CT and the duct burner operating are 9.4 ppmvd during natural gas-fired operation of the CT and 42 ppmvd during fuel oil-fired operation. The proposed BACT NO_x emission limits during intermittent simple cocle operation are 12 ppmvd during natural gas-fired operation and 42 ppmvd while burning No. 2 fuel oil. If the NO_x emission limits cannot be met with the use of DLN combustion, a selective catalytic reduction (SCR) system must be installed. The NOx concentration to be met with SCR with the CT operating and the duct burner on or off, shall not exceed 6 ppmvd at 15 % oxygen (3-hour block average) while firing the CT with natural gas and shall not exceed 15 ppmvd while firing the CT with fuel oil. Prolonged operation of the CT in simple cycle mode will require that it meet the NO_x emission limit of 9 ppm with DLN or 6 ppm by the use of SCE. Emissions of CO with the CT op rating and the duct burner turned off will be limited to 12 ppm while firing natural gas and 20 ppm while firing fuel oil. When the duct burner is also in operation, CO will be limited to 20 ppm while firing the CT with natural gas and 30 pp 23 when firing the CT with fuel oil. Stack exhaust emissions of VOC with the CT operating and the duct burner turned off will be limited to 1 4 ppm while firing natural gas and 10 ppm while firing fuel oil. When the duct burner is also in operation, VOC will be limited to 4 ppm while firing the CT with natural gas and 10 ppm when firing the CT with fuel oil. Visible emissions will be limited to 10 % opacity.

As indicated in the State's BACT evaluation, the use of SCP, to achieve a NO_x emission limit of 3.5 ppm was not considered representative of BACT for the proposed KUA project. The State has indicated that the cost of achieving 3.5 ppm for the KUA project is comparable with the costs reported by Southern Company for repent similar projects in Alabama and Mississippi. Due to the negative effects of using SCR, (which includes increased particulate emissions, undesirable ammonia emissions, and energy penalties), the State believes that the use of DLN and low NO_x burners to achieve a combined CT/duct burner emission limit of 9.4 ppm is justifiable. Although there are valid concerns, they do not necessarily indicate that the use of SCR is infeasible for a project. The PSL application and preliminary determination do not present any unusual site-specific conditions associated with the KUA project to indicate that the use of SCR to achieve NO_x emissions of 3.5 ppm would create greater problems than experienced elsewhere at other similar facilities. We suggest that the State reconsider the BACT decision for NO_x for the proposed KUA project. We would also request that the permit not be issued until we reach a consenses on the NO_x BACT analysis.

The ambient air quality impact assessment profided in the preliminary determination package addressed PM₁₀, CO, and NO_x Pollutants. The maximum ambient concentrations for these pollutants, considering the proposed natural gas and fuel oil operations, were less than applicable significant impact values for all Class I (Chassahowitzka National Wilderness Area) and Class II receptors. Because previous discussions with the Florida Department of Environmental Protection have addressed our air quality related questions and comments, our only request is that review comments on the preliminary determination package be obtained from the Chassahowitzka

Wilderness Area Land Manager.

The regulations at 40 C.F.R. Part 60, Subpart GG - Standards of Performance for Stationary Gas Turbines will be applicable to the new combustion turbine. 40 C.F.R. Part 60, Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units will apply to the duct burner. 40 C.F.R. Part 60, Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) will be applicable to the new 1,000,000 gallon fuel oil storage tank.

Thank you for the opportunity to review and comment on the preliminary determination and draft permit. If you have any questions, please contact Keith Goff of my staff at (404)562-9137.

Sincerely yours,
Douglas Melly

R. Douglas Neeley

Chief

Air and Radiation Technology Branch

Air, Pesticides, and Toxics

Management Division

CC - N?S

Rack Oven

Central District

KUA

Mike Halpin



8400 Ward Parkway, P.O. Box 8405, Kansas City, Missouri 64114, (913) 458-2000

Kissimmee Utility Authority Cane Island – Unit 3 RECEIVED B&V Project 59140
B&V File 32.000
February 3, 1999

FEB 0 4 1999

VIA FEDEX

Florida Department of Environmental Protection Division of Air Resources Management Bureau of Air Regulation Twin Towers Office Building 2600 Blair Stone Road Tallahassee, Florida 32399-2400 BUREAU OF AIR REGULATION

pso-F1-254 pa 98-38

Subject:

Draft PSD Permit for Cane Island - Unit 3

Attention:

Al Linero

Administrator, New Source Review Section

Gentlemen:

On behalf of Kissimmee Utility Authority, Black & Veatch is herewith submitting the following comments regarding the Draft PSD Air Permit for Cane Island – Unit 3, dated January 8, 1999.

Comment 1:

Emission Unit numbers used through out the Draft PSD Permit and Technical Evaluation and Preliminary Determination are inconsistent with the Emission Unit numbers already assigned to the existing emission sources at Cane Island. Our records indicated that the following emission unit numbers have already been assigned to Cane Island in the Draft Title V Permit:

- 001 Cane Island Unit 1 40 MW SCCT
- 002 Cane Island Unit 2 120 MW CCCT
- 003 300,000 Gallon Fuel Oil Storage Tank
- 004 700,000 Gallon Fuel Oil Storage Tank

In light of this, it would appear that Emission Unit numbers should begin with 005 for Unit 3 Power Generation, and end with 008 for the 1.0 Million Gallon Fuel Oil Storage Tank as follows:

- 005 Cane Island Unit 3 167 MW CCCT
- 006 Steam Generation 44 mmBtu/hr Duct Burner
- 007 Cooling Tower
- 008 1.0 Million Gallon Fuel Oil Storage Tank

Comment 2: (Draft PSD Permit, Section III, Specific Condition 25, Parts A and B)

Specific Condition 25 states that the emissions of NO_x in the stack exhaust gas of the combustion turbine at *ISO conditions* shall not exceed 303 lb/hr on fuel oil. It appears that the 303 lb/hr emission rate is based on the GE7FA emissions/performance data (Case 13) included in the PSD Air Permit Application dated July 31, 1998. The emissions/performance data in GE7FA Case 13 is not, however, referenced to ISO conditions (i.e., 59°F and 60 percent relative humidity).

Kissimmee Utility Authority Cane Island - Unit 3

B&V Project 59140 February 3, 1999

Rather, the GE7FA Case 13 emissions/performance data are based on a 100 percent load, fuel oil firing, at ambient conditions of 72°F and 74 percent relative humidity, resulting in a NO_x emission rate of 302.6 lb/hr (or 303 lb/hr when rounded to the nearest pound).

As I'm sure you are aware, the pound per hour emissions of NO_x will increase when correcting the emission level from Case 13 conditions (72°F and 74 percent relative humidity) to ISO conditions (59°F and 60 percent relative humidity). According to our calculations, a correction to ISO conditions (59°F and 60 percent relative humidity) will result in a NO_x emission rate of approximately 310 lb/hr for the 100 percent load fuel oil firing scenario of the GE7FA combustion turbine. The supporting emissions/performance data for the 100 percent load, fuel oil firing, ISO condition case is identified as Case 12.5, and included as an enclosure to this letter for your reference. Specific Condition 25, Parts A & B, should be revised to indicated a 310 lb/hr NO_x fuel oil emission rate instead of 303 lb/hr.

Comment 3: (Draft PSD Permit, Section III, Specific Conditions 46 and 47)

The use of CEM data for excess emissions reporting and in lieu of water to fuel ratio for NSPS compliance are addressed in Specific Conditions 46 and 47 of the draft permit, respectively. Based on a telephone conversation with Teresa Heron on 2/1/99, it is our understanding that EPA approval for the use of CEM data in these circumstances is actually requested and obtained from the EPA by the FDEP through the draft permit process. It is also our understanding that additional approval from the EPA is not required of the Applicant in order to use CEM data in the manner described in Specific Conditions 46 and 47. Please advise if circumstances are otherwise.

If you have any questions regarding this submittal, please do not hesitate to call me at 913-458-7928.

Very truly yours,

BLACK & VEATCHLLE

Timothy M. Hillman Air Permit Coordinator

tmh Enclosure[s]

Ben Sharma (KUA) CC:

CC: B. Over, PPS J. Heron, BAR E. File

KUA Cane	Island Unit 3	ļ
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GE 7FA 1x1 Combined Cycle		*	100 Percent Loa	d - Distillate Oil *		
Case Name CTG Model CTG Model Combustor/NOx Emission Rate CTG Fuel Type CTG Load Level (percent of Base Load) CTG Performance Reference Evaporative Cooler On/Off HRSG Duct Firing On/Off	Case 12 GE 7241FA DLN/42 ppm Distillate Base GE 05/21/98 Off	Case 12.5 GE 7241FA DLN/42 ppm Distillate Base GE Cycledeck Off Off	Case 13 GE 7241FA DLN/42 ppm Distillate Base GE 05/21/98 On Off	Case 14 GE 7241FA DLN/42 ppm Distillate Base GE 05/21/98 Off	Case 15 GE 7241FA DLN/42 ppm Distillate Base GE 05/21/98 On	Case 16 GE 7241FA DLN/42 ppm Distillate Base GE 05/21/98 Off
Ambinet Temperature, F	19	59	72	72	102	10
Ambient Relative Humidity, %	55	60	74	74	45	4:
CTG Compressor Inlet Temperature, F	19	59	66.7	72	84.7	10
CTG Compr. Inlet Relative Humidity, %	55	60	96	74	92	4!
Almospheric Pressure, psia	14.656	14.656	14.656	14.656	14.656	14.656
Site Elevation, ft	75	75	75	75	75	7:
Inlet Loss, in. H2O	4.5	4.5	4.5	4.5	4.5	4:
Exhaust Loss, in. H2O	14.0	14.0	14.0	14.0	14.0	14.0
CTG Fuel Type	Distillate	Distillate	Distillate	Distillate	Distillate	Distillate
Number of CTGs	1	1	1	1	1	
Gross CTG Output, kW	189,300	178,500	174,000	171,500	161,500	151,300
Gross CTG Heat Rate, Btu/kWh (LHV)	10,090	10,080	10,110	10,150	10,260	10,480
CTG Heat Input, MBtu/h (LHV)	1,910.04	1,799.28	1,759.14	1,740.73	1,656.99	1,585.6
CTG Heat Input, MBtu/n (HHV)	2,039.42	1,921,16	1,878.30	1,858.65	1,769.23	1,693.03
CTG Fuel Flow, lb/h	102,770	96.810	94,650	93,660	89.150	85.310
CTG Water Injection Flow, lb/h	131,760	120,840	110,720	111,020	94,100	93,960
CTG Steam Injection Flow, lb/h	0	0	0	0	0	
Injection Ratio	1.282	1.248	1.170	1.185	1.056	1.101
CTG Exhaust Flow, lb/h	3,901,400	3,669,000	3,586,520	3,552,540	3,416,600	3.296.660
CTG Exhaust Temperature, F	1,068	1,101	1,112	1,116	1.131	1,145
Duct Burner Heat Input, MBtu/h (LHV)	₀ [_ 		o	₀	
Duct Burner Heat Input, MBtu/h (HHV)	0	o		o		
Stack Exit Temperature, F		275		281	284	
Stack Exhaust Pressure, in. H2O above Patm	0	0	0			
Stack Diameter, ft	18.0	18.0	18.0	18.0	18.0	18.0
Stack Exit Velocity, ft/s	81.4	76.1	75.3	74.5	72.2	69.3

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KUA	Cane	island	Unit 3

KUA Cane Island Unit 3 GE 7FA 1x1 Combined Cycle	* 100 Percent Load - Distillate Oil *					
Case Name	Case 12	Case 12.5	Case 13	Case 14	Case 15	Case 16
CTG Model	GE 7241FA	GE 7241FA	GE 7241FA	GE 7241FA	GE 7241FA	GE 7241FA
Combustor/NOx Emission Rate	DLN/42 ppm	DLN/42 ppm	DLN/42 ppm	DLN/42 ppm	DLN/42 ppm	DLN/42 ppm
CTG Fuel Type	Distillate	Distillate	Distillate	Distillate	Distillate	Distillate
CTG Load Level (percent of Base Load)	Base	Base	Base	Base	Base	Base
CTG Performance Reference	GE 05/21/98	GE Cycledeck	GE 05/21/98	GE 05/21/98	GE 05/21/98	GE 05/21/98
Evaporative Cooler On/Off	Off	Off	On	Off	On	Off
	Off	Off	Off	Off	Off	
HRSG Duct Firing On/Off	, On	011	Oii	Off	Oii	Off
CTG Exhaust Analysis (Volume Basis - Wet)						
O2	11.38%	11.26%	11.13%	11.16%	11.06%	11.20%
ĊO2	5.36%	5.36%	5.34%	5.34%	5.26%	5.23%
H2O	10.60%	11.21%	11.90%	11.80%	12.77%	12.32%
N2	71.76%	71.28%	70.73%	70.81%	70.02%	70.37%
	0.90%					
Ar		0.90%	0.89%	0.89%	0.88%	0.88%
\$02	0.00117%	0.00116%	0.00116%	0.00116%	0.00114%	0.00114%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Emissions (at CTG exhaust flange)						
NOx, ppmvd @ 15% O2	42.0	42.0	42.0	42.0	42.0	42.0
NOx, lb/h as NO2	328.5	309.5	302.6	299.4	285.1	272.8
CO, ppmvd	20.0	20.0	20.0	20.0	20.0	20.0
CO, ppmvw	17.9	17.8	17.6	17.6	17.4	17.5
CO, ppmvd @ 15% O2	14.5	14.4	14.3	14.4	14.4	14.6
CO, lb/h	68.9	64.5	62.7	62.2	59.4	57.5
UHC, ppmvd	7.83	7.88	7.95	7.94	8.02	7.98
ÚHC, ppmvw	7.00	7.00	7.00	7.00	7.00	7.00
UHC, ppmvd @ 15% O2	5.68	5.68	5.70	5.70	5.78	5.82
UHC, Ib/h as CH4	15,44	14.55	14.27	14.13	13.64	13.14
VOC, ppmvd	3.91	3.94	3.97	3.97	4.01	3.99
VOC, ppmvw	3.50	3.50	3.50	3.50	3.50	3.50
VOC, ppmvd @ 15% O2	2.84	2.84	2.85	2.85	2.89	2.91
VOC, lb/n as CH4	7.72	7.28	7.13	7,06	6.82	6,57
SO2, ppmvd	13.04	13.12	13.19	13.17	13.12	12.97
SO2, ppmvw	11.66	11.65	11.62	11.61		
					11.45	11,37
SO2, lb/h	102.67	96.72	94.56	93.57	89.07	85.23
Particulates (TSP = PM10), lb/h (dry filterables only)	44.00	44.00	44.00	44.00	43.00	43.00
CTG Fuel LHV, Btu/lb	18,586	18,586	18,586	18,586	18,586	18,586
CTG Fuel HHV, Btu/lb	19,845	19,845	19,845	19,845	19,845	19,845
HHV/LHV Ratio	1.0677	1.0677	1.0677	1.0677	1.0677	1.0677
CTG Fuel Composition (Ultimate Analysis by Weight)	i					
Ar	0.000000%	0.000000%	0:000000%	0.000000%	0.000000%	0.000000%
С	86.135000%	86.135000%	86.135000%	86.135000%	86.135000%	86.135000%
H2	13.800000%	13.800000%	13.800000%	13.800000%	13.800000%	13.800000%
N2	0.015000%	0.015000%	0.015000%	0.015000%	0.015000%	0.015000%
02	0.013000%	0.000000%	0.000000%	0.000000%		
	0.050000%				0.000000%	0.000000%
STotal	100.00%	0.050000% 100.00%	0.050000%	0.050000% 100.00%	0.050000%	0.050000%
CTG Wet (Total) Exhaust Gas Analysis						
Molecular Wt, lb/mol	28.37	28.31	28.23	28.24	28.13	28.17
Gas Constant, ft-lbf/lbm-R	54.449	54.580	54.729	54,708	54.930	54.841
Specific Volume, ft^3/lb	38.10	39.01	39.40	39.48	40.02	40.31
Exhaust Gas Flow, acfm	2,477,389	2,385,462	2,355,148	2,337,571	2,278,872	2,214,806
Specific Volume, scf/lb	13.37	13.40	13.44	13.43	13.49	13.47
Exhaust Gas Flow, scfm	869,362	819,410	803,380	795,177	768,166	740,100
Exhaust Gas Flow, Ib/h	3,901,400	3,669,000				
CAIGUST COS FIOW, IU/II	3,901,400		3,586,520	3,552,540	3,416,600	3,296,660
						

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GE 7FA 1x1 Combined Cycle	* 100 Percent Load - Distillate Oil *					
Case Name CTG Model Combustor/NOx Emission Rate CTG Fuel Type CTG Load Level (percent of Base Load) CTG Performance Reference Evaporative Cooler On/Off	Case 12 GE 7241FA DLN/42 ppm Distillate Base GE 05/21/98 Off	Case 12.5 GE 7241FA DLN/42 ppm Distillate Base GE Cycledeck Off	Case 13 GE 7241FA DLN/42 ppm Distillate Base GE 05/21/98 On	Case 14 GE 7241FA DLN/42 ppm Distillate Base GE 05/21/98 Off	Case 15 GE 7241FA DLN/42 ppm Distillate Base GE 05/21/98 On	Case 16 GE 7241FA DLN/42 ppm Distillate Base GE 05/21/98 Off
HRSG Duct Firing On/Off	Off	Off	Off	Off	Off	Off
Stack Exhaust Analysis (Volume Basis - Wet)						
Ar	0.90%	0.90%	0.89%	0.89%	0.88%	0.88
CO2	5.36%	5.36%	5.34%	5.34%	5.26%	5.23
H2O	10.60%	11.21%	11.90%	11.80%	12.77%	12:32
N2	71.76%	71.28%	70.73%	70.81%	70.02%	70.37
02	11.38%	11.26%	11.13%	11.16%	11.06%	11.20
S02	0.00117%	0.00116%	0.00116%	0.00116%	0.00114%	0.00114
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00
Stack Exhaust Gas Analysis (Wet)						
Molecular Wt, lb/mol	28.37	28.31	28.23	28.24	28.13	28.1
Gas Constant, ft-lbf/lbm-R	54.449	54.580	54.729	54.708	54.930	54.84
Specific Volume, ft^3/lb	19.11	19.00	19.23	19.20	19.36	19.2
Exhaust Gas Flow, acfm	1,242,596	1,161,850	1,149,480	1.136.813	1,102,423	1,057,67
Specific Volume, scf/lb	13.37	13.40	13.44	13.43	13.49	13.4
Exhaust Gas Flow, scfm	869,362	819,410	803,380	795,177	768,166	740,10
Exhaust Gas Flow, Ib/h	3,901,400	3,669,000	3,586,520	3,552,540	3,416,600	3,296,66
Emissions (at Stack exit)			<u> </u>			
NOx, ppmvd @15% O2 without SCR	42.0	42.0	42.0	42.0	42.0	42.
NOx, lb/h as NO2 without SCR	328.5	309.5	302.6	299.4	285.1	272
NOx, ppmvd @15% O2 with SCR	11.2	11.2	11.2	11.2	11.2	11
NOx, lb/h as NO2 with SCR	87.3	82.3	80.4	79.6	75.8	72
NH3 slip, ppmvd @15% O2 with SCR	10.0	10.0	10.0	10.0	10.0	10
NH3 slip, lb/h with SCR	28.9	27.2	26.6	26.3	25.0	24
CO, ppmvd without Catalyst	20.0	20.0	20.0	20.0	20.0	20
CO, lb/h without Catalyst	68.9	64.5	62.7	62.2	59.4	57
CO, ppmvd @ 15% O2 without Catalyst	14.5	14.4	14.3	14.4	14.4	14
CO, ppmvd with Catalyst	20.0	20.0	20.0	20.0	20.0	20
CO, lb/h with Catalyst	68.9	64.5	62.7	62.2	59.4	57
CO, ppmvd @ 15% O2 with Catalyst	14.5	14.4	14.3	14.4	14.4	14
SO2, ppmvd	13.04	13,12	13.19	13.17	13.12	12.9
SO2, ppmvw	11.66	11.65	11.62	11.61	11.45	11.3
SO2, lb/h	102.67	96.72	94.56	93.57	89.07	85.2
UHC, ppmvd	7.8	7.9	7.9			
UHC, ppmvw	7.0	7.0	7.0	7,9	8.0	8
UHC, ppmvd @ 15% O2	5.7		5.7	7.0 5.7	7.0	7
UHC, lb/h as CH4	15.4	14.6	5.7 14.3	14.1	5.8	5.
VOC, ppmvd	3.9	3.9	4.0	4.0	13.6 4.0	13.
VOC, ppmvw	3.5	3.5	3.5	3.5	3.5	4
VOC, ppmvd @ 15% Q2	2.8	2.8	2.8	2.9		3
VOC, Ib/h as CH4	7.7	7.3		7.1	2.9	2
Particulates (TSP = PM10), lb/h (dry filterables only)	44.0	44.0	44.0		6.8	6
Tarocaldica (1-01 - 1 MTO), IDITI (01) INICIADIES UNIV)	44.0	44 .0	44.0	44.0	43.0	43.

B&V Project 59140.0031 File: d:\proj\kua\ge\7fa_exh.wk4 D1/25/99

Notes:

1. Values shown above are for one combustion turbine/HRSG unit only.

2. 73% effective SCR and no CO catalyst.

3. Particulates are front and back half.

4. CTG performance from General Electric data received 5/21/98 for KUA and GE Cycleded 1/25/99.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4 ATLANTA FEDERAL CENTER 61 FORSYTH STREET ATLANTA, GEORGIA 30303-8960

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BUREAU OF AIR REGULATION

Mr. Clair H. Fancy, P.E.
Chief
Bureau of Air Regulation
Florida Department of Environmental
Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

SUBJ: Draft PSD Permit for Kissimmee Utility Authority, Cane Island Power Park, Intercession City, Florida (PSD-FL-254)

Dear Mr. Fancy:

Thank you for your letter dated January 7, 1999, submitting a preliminary determination and draft Prevention of Significant Deterioration (PSD) permit for the above referenced facility. The Kissimmee Utility Authority (KUA), Cane Island Power Park currently includes a nominal 40 MW simple cycle combustion turbine (Unit 1) and a nominal 120 MW combined cycle combustion turbine with heat recovery steam generator (HRSG) and steam turbine (Unit 2). The proposed new unit (Unit 3) will be a nominal 250 MW combined cycle plant. The new unit will include a nominal 167 MW General Electric Model 7FA combustion turbine (CT) electrical generator, which will fire natural gas as the primary fuel and No. 2 distillate fuel oil as a backup fuel (up to 720 hr/yr). Other major equipment associated with Unit 3 will include a supplementally fired heat recovery steam generator (HRSG), an 80-90 MW steam turbineelectrical generator, a 44 mmBtu/hr heat input natural gas-fired duct burner, and a 1,000,000 gallon fuel oil storage tank. The project also includes a 130 foot exhaust stack for combined cycle operation and a 100 foot bypass stack for simple cycle operation. KUA intends to operate the unit in simple cycle mode during periods when the HRSG is not operational or when electrical demand makes it uneconomical to operate the HRSG. The draft permit allows Unit 3 to operate up to 8,760 hours per year in either simple cycle or combined cycle mode. Emissions from the proposed project are above the significance thresholds requiring PSD review for NO, CO, PM/PM₁₀, and VOCs.

The proposed best available control technology (BACT) emission limits for the facility are based on the operation of Unit 3 as a combined cycle CT/HRSG or as a simple cycle CT. The CT will be equipped with dry low NO_x (DLN) combustors, and low NO_x burners will be installed on the duct burner. A water injection system will be installed for use when No. 2 fuel



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

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BUREAU OF AIR REGULATION

4APT-ARB

Mr. Clair H. Fancy, P.E.
Chief
Bureau of Air Regulation
Florida Department of Environmental
Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

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Thank you for your letter dated January 7, 1999, submitting a preliminary determination and draft Prevention of Significant Deterioration (PSD) permit for the above referenced facility. The Kissimmee Utility Authority (KUA), Cane Island Power Park currently includes a nominal 40 MW simple cycle combustion turbine (Unit 1) and a nominal 120 MW combined cycle combustion turbine with heat recovery steam generator (HRSG) and steam turbine (Unit 2). The proposed new unit (Unit 3) will be a nominal 250 MW combined cycle plant. The new unit will include a nominal 167 MW General Electric Model 7FA combustion turbine (CT) electrical generator, which will fire natural gas as the primary fuel and No. 2 distillate fuel oil as a backup fuel (up to 720 hr/yr). Other major equipment associated with Unit 3 will include a supplementally fired heat recovery steam generator (HRSG), an 80-90 MW steam turbineelectrical generator, a 44 mmBtu/hr heat input natural gas-fired duct burner, and a 1,000,000 gallon fuel oil storage tank. The project also includes a 130 foot exhaust stack for combined cycle operation and a 100 foot bypass stack for simple cycle operation. KUA intends to operate the unit in simple cycle mode during periods when the HRSG is not operational or when electrical demand makes it uneconomical to operate the HRSG. The draft permit allows Unit 3 to operate up to 8,760 hours per year in either simple cycle or combined cycle mode. Emissions from the proposed project are above the significance thresholds requiring PSD review for NO_x, CO, PM/PM₁₀, and VOCs.

The proposed best available control technology (BACT) emission limits for the facility are based on the operation of Unit 3 as a combined cycle CT/HRSG or as a simple cycle CT. The CT will be equipped with dry low NO_x (DLN) combustors, and low NO_x burners will be installed on the duct burner. A water injection system will be installed for use when No. 2 fuel oil is fired in

the CT. The proposed BACT NO_x emission limits with the CT operating and the duct burner turned off are 9 ppmvd at 15% oxygen (24-hr block average) during natural gas-fired operation of the CT and 42 ppmvd during fuel oil-fired operation of the CT. The proposed NO_x emission limits with both the CT and the duct burner operating are 9.4 ppmvd during natural gas-fired operation of the CT and 42 ppmvd during fuel oil-fired operation. The proposed BACT NO_x emission limits during intermittent simple cycle operation are 12 ppmvd during natural gas-fired operation and 42 ppmvd while burning No. 2 fuel oil. If the NO_x emission limits cannot be met with the use of DLN combustion, a selective catalytic reduction (SCR) system must be installed. The NO_x concentration to be met with SCR with the CT operating and the duct burner on or off, shall not exceed 6 ppmvd at 15 % oxygen (3-hour block average) while firing the CT with natural gas and shall not exceed 15 ppmvd while firing the CT with fuel oil. Prolonged operation of the CT in simple cycle mode will require that it meet the NO_x emission limit of 9 ppm with DLN or 6 ppm by the use of SCR. Emissions of CO with the CT operating and the duct burner turned off will be limited to 12 ppm while firing natural gas and 20 ppm while firing fuel oil. When the duct burner is also in operation, CO will be limited to 20 ppm while firing the CT with natural gas and 30 ppm when firing the CT with fuel oil. Stack exhaust emissions of VOC with the CT operating and the duct burner turned off will be limited to 1.4 ppm while firing natural gas and 10 ppm while firing fuel oil. When the duct burner is also in operation, VOC will be limited to 4 ppm while firing the CT with natural gas and 10 ppm when firing the CT with fuel oil. Visible emissions will be limited to 10 % opacity.

As indicated in the State's BACT evaluation, the use of SCR to achieve a NO_x emission limit of 3.5 ppm was not considered representative of BACT for the proposed KUA project. The State has indicated that the cost of achieving 3.5 ppm for the KUA project is comparable with the costs reported by Southern Company for recent similar projects in Alabama and Mississippi. Due to the negative effects of using SCR, (which includes increased particulate emissions, undesirable ammonia emissions, and energy penalties), the State believes that the use of DLN and low NO_x burners to achieve a combined CT/duct burner emission limit of 9.4 ppm is justifiable. Although these are valid concerns, they do not necessarily indicate that the use of SCR is infeasible for a project. The PSD application and preliminary determination do not present any unusual site-specific conditions associated with the KUA project to indicate that the use of SCR to achieve NO_x emissions of 3.5 ppm would create greater problems than experienced elsewhere at other similar facilities. We suggest that the State reconsider the BACT decision for NO_x for the proposed KUA project. We would also request that the permit not be issued until we reach a consenses on the NO_x BACT analysis.

The ambient air quality impact assessment provided in the preliminary determination package addressed PM_{10} , CO, and NO_x pollutants. The maximum ambient concentrations for these pollutants, considering the proposed natural gas and fuel oil operations, were less than applicable significant impact values for all Class I (Chassahowitzka National Wilderness Area) and Class II receptors. Because previous discussions with the Florida Department of Environmental Protection have addressed our air quality related questions and comments, our only request is that review comments on the preliminary determination package be obtained from the Chassahowitzka

Wilderness Area Land Manager.

The regulations at 40 C.F.R. Part 60, Subpart GG - Standards of Performance for Stationary Gas Turbines will be applicable to the new combustion turbine. 40 C.F.R. Part 60, Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units will apply to the duct burner. 40 C.F.R. Part 60, Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) will be applicable to the new 1,000,000 gallon fuel oil storage tank.

Thank you for the opportunity to review and comment on the preliminary determination and draft permit. If you have any questions, please contact Keith Goff of my staff at (404)562-9137.

Sincerely yours,

R. Douglas Neeley

Chief

Air and Radiation Technology Branch

Air, Pesticides, and Toxics Management Division

CC: NPS
B. Over
CD
KUA
M. Halpu



Department of Environmental Protection

Lawton Chiles Governor Twin Towers Office Building 2600 Blair Stone Road Tallahassee, Florida 32399-2400 January 12, 1999

Virginia B. Wetherell Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. R. Douglas Neeley, Chief Air, Radiation Technology Branch US EPA Region IV 61 Forsyth Street Atlanta, GA 30303

Re: PSD Review and Custom Fuel Monitoring Schedule Kissimmee Utlity Authority, Cane Island Unit 3 PSD-FL-254

Dear Mr. Neeley:

Enclosed is a copy of the Department's draft permit to construct (the Department's Intent to Issue package was already mailed to Mr. Greg. Worley) the KUA Cane Island Unit 3 Project in Osceola County. It will be a natural gas-fired combined cycle facility with limited use of maximum 0.05 percent sulfur fuel oil. The project consists of a nominal 167 megawatt (MW) combustion turbine-electrical generator with a supplementary-fired heat recovery steam generator capable raising sufficient steam to generate another 80-90 MW from a steam turbine-electrical generator.

The project is subject to the Florida's Power Plant Siting procedure because it will generate more than 75 MW of steam electricity.

Please send your written comments on or approval of the applicant's proposed custom fuel monitoring schedule. The plan is based on the letter dated January 16, 1996 from Region V to Dayton Power and Light. The Subpart GG limit on SO₂ emissions is 150 ppmvd @ 15% O₂ or a fuel sulfur limit of 0.8% sulfur. Neither of these limits could conceivably be violated by the use of pipeline quality natural gas which has a maximum SO₂ emission rate of 0.0006 lb/MMBtu (40 CFR 75 Appendix D Section 2.3.1.4). The sulfur content of pipeline quality natural gas in Florida has been estimated at a maximum of 0.003 % sulfur. Fuel oil will with a 0.05% sulfur content be used. The requirements have been incorporated into the enclosed draft permit as Specific Conditions 49 and 50 and read as follows:

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

• The permittee shall apply for an Acid Rain permit within the deadlines specified in 40 CFR 72.30.

- The permittee shall submit a monitoring plan, certified by signature of the Designated Representative, that commits to using a primary fuel of pipeline supplied natural gas (sulfur content less than 20 gr/100 scf pursuant to 40 CFR 75.11(d)(2)).
- Each unit shall be monitored for SO₂ emissions using methods consistent with the requirements of 40 CFR 75 and certified by the USEPA.

This custom fuel monitoring schedule will only be valid when pipeline natural gas is used as a primary fuel. If the primary fuel for these units is changed to a higher sulfur fuel, SO₂ emissions must be accounted for as required pursuant to 40 CFR 75.11(d).

<u>Fuel Oil Monitoring Schedule</u>: The following monitoring schedule for No. 2 or superior grade fuel oil shall be followed: For all bulk shipments of No. 2 fuel oil received at this facility an analysis which reports the sulfur content and nitrogen content of the fuel shall be provided by the fuel vendor. The analysis shall also specify the methods by which the analyses were conducted and shall comply with the requirements of 40 CFR 60.335(d).

Please comment on Specific Conditions 46-48 which allow the use of the acid rain NO_X CEMS for demonstrating compliance as well as reporting excess emissions. Typically NO_X emissions will be less than 10 ppmvd @15% O_2 (gas) which is less than one-tenth of the applicable Subpart GG limit based on the efficiency of the unit. A CEMS requirement is stricter and more accurate than any Subpart GG requirement for determining excess emissions.

The Department recommends your approval of the custom fuel monitoring schedules and these NO_X monitoring provisions. We also request your comments on the Intent to Issue. If you have any questions on these matters please contact Teresa Heron at 850/921-9529.

Sincerely,

A. A. Linero, P.E., Administrator

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New Source Review Section

AAL/aal

Enclosures

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Receipt for Certified Mail

No Insurance Coverage Provided.

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<u></u>	PS Form 3811 , December 1994	2595-97-B-0179	Domestic Ret	urn Receipt

PERMITTEE:

Kissimmee Utility Authority (KUA) 1701 West Carroll Street Kissimmee, Florida 34741-6804

File No.	PSD-FL-254 (PA98-38)
FID No.	0970043
SIC No.	4911
Expires:	December 31, 2002

Authorized Representative:

A.K. Sharma, Director of Power Supply

PROJECT AND LOCATION:

Permit pursuant to the requirements for the Prevention of Significant Deterioration of Air Quality (PSD Permit) for the construction of: a nominal 167 megawatt (MW), gas-fired, stationary combustion turbine-electrical generator; a supplementally-fired heat recovery steam generator (HRSG); a nominal 80-90 MW steam electrical generator; a 1.0 million gallon storage tank for back-up distillate fuel oil; a 130 foot stack; and a 100-foot bypass stack for simple cycle operation. The unit will achieve approximately 250 megawatt in combined cycle operation at referenced conditions. The unit is designated as Unit 3 and will be located at the Cane Island Power Park, 6075 Old Tampa Highway, near Intercession City; Osceola County. UTM coordinates are: Zone 17; 447.72 km E; 3127.68 km N.

STATEMENT OF BASIS:

This PSD permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.) and 40CFR52.21. The above named permittee is authorized to modify the facility in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department of Environmental Protection (Department).

Attached Appendices and Tables made a part of this permit:

Appendix BD

BACT Determination

Appendix GC

Construction Permit General Conditions

Howard L. Rhodes, Director Division of Air Resources Management

PREVENTION OF SIGNIFICANT DETERIORATION PERMIT PSD-FL-254

SECTION I - FACILITY INFORMATION

FACILITY DESCRIPTION

The existing Kissimmee Utility Authority (KUA) Cane Island Power Park consists of a nominal 40 MW simple cycle combustion turbine designated as Unit 1 and a nominal 120 MW combined cycle combustion turbine-electrical generator with a heat recovery steam generator (HRSG) and a steam electrical generator designated as Unit 2.

The proposed KUA Cane Island I ower Park Unit 3 is a nominal 250 MW combined cycle plant. It will include a nominal 167 MW stationary gas combustion turbine-electrical generator burning natural gas with fuel oil as backup; a supplementally gas-fired heat recovery steam generator to raise sufficient steam to achieve 250 MW in combined cycle operation; an 80-90 MW steam electric generator, a 44 MMBtu/hr heat input duct burner, a 130 foot stack; and a 100-foot bypass stack for simple cycle operation. New major support facilities for Unit 3 include a cooling tower, water and wastewater facilities, water storage tanks, storm water detention pond, 230 KV transmission line, and a 1.0 million gallon storage tank for back-up distillate fuel oil.

Emissions from Cane Island Power Park Unit 3 will be controlled by Dry Low NO_X (DLN) combustors or selective catalytic reduction (SCR) when operating on natural gas and wet injection when firing fuel oil. Inherently clean fuels and good combustion practices will be employed to control all pollutants.

EMISSION UNITS

This permit addresses the following emission units:

Emission Unit	System	Emission Unit Description
003	Power Generation	One nominal 167 Megawatt Gas Combustion Turbine-Electrical Generator
004	Fuel Storage	1.0 Million Gallon Fuel Oil Storage Tank
005	Steam Generation	One 44 mmBtu/hr Duct Burner in a Supplementally Fired Heat Recovery Steam Generator (and 80-90 MW Steam Electrical Turbine)
006	Water Cooling	Cooling Tower

REGULATORY CLASSIFICATION

The facility is classified as a Major or Title V Source of air pollution because emissions of at least one regulated air pollutant, such as particulate matter (PM/PM₁₀), sulfur dioxide (SO₂), nitrogen oxides (NO_X), carbon monoxide (CO), or volatile organic compounds (VOC) exceeds 100 tons per year (TPY).

PREVENTION OF SIGNIFICANT DETERIORATION PERMIT PSD-FL-254 SECTION I - FACILITY INFORMATION

This facility is within an industry included in the list of the 28 Major Facility Categories per Table 62-212.400-1, F.A.C. Because emissions are greater than 100 TPY for at least one criteria pollutant, the facility is also a Major Facility with respect to Rule 62-212.400, Prevention of Significant Deterioration (PSD). Pursuant to Table 62-212.400-2, this facility modification results in emissions increases greater than 40 TPY of NO_X, 25/15 TPY of PM/PM₁₀, 100 TPY of CO and 40 TPY of VOCs. These pollutants require review per the PSD rules and a determination for Best Available Control Technology (BACT) per Rule 62-212.400, F.A.C.

This Project is subject to the applicable requirements of Chapter 403. Part II, F.S., Electric Power Plant and Transmission Line Siting because the steam electric generating capacity of this facility is greater than 75 MW. [F.S Chapter 403.503 (12) Definitions]

This facility is also subject to certain Acid Rain provisions of Title IV of the Clean Air Act..

PERMIT SCHEDULE

•	01/xx/99	Notice of Intent published in	

- 01/07/99 Distributed Intent to Issue Permit
- 12/10/98 Application deemed complete and sufficient for PSD review.
- 08/05/98 Received PSD Application

RELEVANT DOCUMENTS:

The documents listed below are the basis of the permit. They are specifically related to this permitting action, but not all are incorporated into this permit. These documents are on file with the Department.

- Application received on August 5, 1998
- Department/BAR letters to KUA dated August 17, and September 23, 1998
- Department/BAR memo to PPSO dated August 31, 1998
- Comments and letter from the National Park Service dated September 11, 1998.
- Department Statement of Sufficiency (Fot Sufficient) dated October 8, 1998
- KUA Response to Statement of Sufficiency dated November 06, 1998
- KUA letter dated November 30, 1998 and Fax dated January 6, 1999
- Department's Intent to Issue and Public Notice Package dated January 8, 1999.
- Department's Final Determination and Best Available Control Technology Determination issued concurrently with this Final Permit.

PREVENTION OF SIGNIFICANT DETERIORATION PERMIT PSD-FL-254 SECTION II - ADMINISTRATIVE REQUIREMENTS

GENERAL AND ADMINISTRATIVE REQUIREMENTS

- 1. Regulating Agencies: All documents related to applications for permits to construct, operate or modify an emissions unit should be submitted to the Bureau of Air Regulation (BAR), Florida Department of Environmental Protection (FixeP), at 2600 Blairstone Road, Tallahassee, Florida 32399-2400 and phone number (850)488-0114. All documents related to reports, tests, and notifications should be submitted to the DEP Central District Office, 3319 Maguire Boulevard, Suite 232, Orlando, Florida 32803-3767 and phone number 407/894-7555.
- 2. General Conditions: The owner and operator is subject to and shall operate under the attached General Permit Conditions G.1 through G.15 listed in Appendix GC of this permit. General Permit Conditions are binding and enforceable pursuant to Chapter 403 of the Florida Statutes. [Rule 62-4.160, F.A.C.]
- 3. <u>Terminology</u>: The terms used in this permit have specific meanings as defined in the corresponding chapters of the Florida Administrative Code.
- 4. <u>Forms and Application Procedures</u>: The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. [Rule 62-210.900, F.A.C.]
- 5. Modifications: The permittee shall give written notification to the Department when there is any molification to this facility. This notice shall be submitted sufficiently in advance of any critical date involved to allow sufficient time for review, discussion, and revision of plans, if necessary. Such notice shall include, but not be limited to, information describing the precise nature of the change; modifications to any emission control system; production capacity of the facility before and after the change; and the anticipated completion date of the change. [Chapters 62-210 and 62-212, F.A.C.]
- 6. Expiration: Approval to construct shall become invalid if construction is not commenced within 18 months after receipt of such approval, or if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time. The Department may extend the 18-month period upon a satisfactory showing that an extension is justified. [40 CFR 52.21(r)(2)]
- 7. <u>BACT Determination</u>: In conjunction with extension of the 18 month periods to commence or continue construction, or extension of the December 31, 2002 permit expiration date, the permittee may be required to demonstrate the adequacy of any previous determination of best available control technology for the source. [40 CFR 52.21(j)(4)]
- 8. <u>Permit Extension</u>: The permittee, for good cause, may request that this PSD permit be extended. Such a request shall be submitted to the Bureau of Air Regulation prior to 60 days before the expiration of the permit (Rule 62-4.080, F.A.C.).

PREVENTION OF SIGNIFICANT DETERIORATION PERMIT PSD-FL-254 SECTION II - ADMINISTRATIVE REQUIREMENTS

- 9. Application for Title IV Permit: An application for a Title IV Acid Rain Permit, must be submitted to the U.S. Environmental Protection Agency Region IV office in Atlanta, Georgia and a copy to the DEP's Bureau of Air Regulation in Tallahassee 24 months before the date on which the new unit begins serving an electrical generator (greater than 25 MW). [40 CFR 72]
- 10. <u>Application for Title V Permit</u>: An application for a Title V operating permit, pursuant to Chapter 62-213, F.A.C., must be submitted to the DEP's Bureau of Air Regulation, and a copy to the Department's Central District Office. [Chapter 62-213, F.A.C.]
- 11. New or Additional Conditions: Pursuant to Rule 62-4.080, F.A.C., for good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]
- 12. <u>Annual Reports</u>: Pursuant to Rule 62-210.370(2), F.A.C., Annual Operation Reports, the permittee is required to submit annual reports on the actual operating rates and emissions from this facility. Annual operating reports shall be sent to the DEP's Central District Office by March 1st of each year.
- 13. <u>Stack Testing Facilities</u>: Stack sampling facilities shall be installed in accordance with Rule 62-297.310(6), F.A.C.
- 14. Quarterly Reports: Quarterly excess emission reports, in accordance with 40 CFR 60.7 (a)(7) (c) (1997 version), shall be submitted to the DEP's Central District Office.

APPLICABLE STANDARDS AND REGULATIONS:

- 1. Unless otherwise indicated in this permit, the construction and operation of the subject emission unit(s) shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of Chapter 403, F.S. and Florida Administrative Code Chapters 62-4, 62-17, 62-204, 62-210, 62-212, 62-213, 62-214, 62-296, and 62-297; and the applicable requirements of the Code of Federal Regulations Section 40, Parts 52, 60, 72, 73, and 75.
- 2. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting requirements or regulations. [Rule 62-210.300, F.A.C.]
- 3. These emission units shall comply with all applicable requirements of 40CFR60, Subpart A, General Provisions including:
 - 40CFR60.7, Notification and Recordkeeping
 - 40CFR60.8, Performance Tests
 - 40CFR60.11, Compliance with Standards and Maintenance Requirements
 - 40CFR60.12, Circumvention
 - 40CFR60.13, Monitoring Requirements
 - 40CFR60.19, General Notification and Reporting requirements
- 4. ARMS Emissions Unit 003. Direct Power Generation, consisting of a nominal 167 megawatt combustion turbine-electrical generator, shall comply with all applicable provisions of 40CFR60, Subpart GG, Standards of Performance for Stationary Gas Turbines, adopted by reference in Rule 62-204.800(7)(b), F.A.C. The Subpart GG requirement to correct test data to ISO conditions applies. However, such correction is not used for compliance determinations with the BACT standard(s).
- 5. ARMS Emission Unit 004. Fuel Storage, consisting of a 1.0 million gallon distillate fuel oil storage tank shall comply with all applicable provisions of 40CFR60, Subpart Kb, Standards of Performance for Volatile Organic Liquid Storage Vessels, adopted by reference in Rule 62-204.800, F.A.C.
- 6. ARMS Emission Unit 005. Steam Power Generation, consisting of a supplementally-fired heat recovery steam generator equipped with a natural gas fired 44 mmBTU/hr duct burner (HHV) and 80-90 MW steam electrical generator shall comply with all applicable previsions of 40CFR60, Subpart Dc, Standards of Performance for Small Industrial Commercial-Institutional Steam Generating Units Which Construction is Commenced After September June 9, 1989, adopted by reference in Rule 62-204.800(7), F.A.C.
- 7. ARMS Emission Unit 006. Cooling Tower, is an unregulated emission unit. The Cooling Tower is not subject to a NESHAP because Chromium-based chemical treatment is not used.
- 8. All notifications and reports required by the above specific conditions shall be submitted to the DEP's Central District Office.

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GENERAL OPERATION REQUIREMENTS

- 9. <u>Fuels</u>: Only pipeline natural gas or maximum 0.05 percent sulfur fuel oil No. 2 or superior grade of distillate fuel oil shall be fired in this unit. [Applicant Request, Rule 62-210.200, F.A.C. (Definitions Potential Emissions)]
- 10. Combustion Turbine Capacity: The maximum heat input rates, based on the lower heating value (LHV) of each fuel to this Unit at ambient conditions of 19°F temperature, 55% relative humidity, 100% load, and 14.7 psi pressure shall not exceed 1,696 million Btu per hour (mmBtu/hr) when firing natural gas, nor 1,910 mmBtu/hr when firing No. 2 or superior grade of distillate fuel oil. These maximum heat input rates will vary depending upon ambient conditions and the combustion turbine characteristics. Manufacturer's curves corrected for site conditions or equations for correction to other ambient conditions shall be previded to the Department of Environmental Protection (DEP) within 45 days of completing the initial compliance testing. [Design, Rule 62-210.200, F.A.C. (Definitions Potential Emissions)]
- 11. <u>Heat Recovery Steam Generator equipped with Duct Burner</u>. The maximum heat input rate of the natural gas fired duct burner shall not exceed 44 mmBtu/hour (HHV). [Applicant Request, Rule 62-210.200, F.A.C. (Definitions Potential Emissions)]
- 12. <u>Unconfined Particulate Emissions</u>: During the construction period, unconfined particulate matter emissions shall be minimized by dust suppressing techniques such as covering and/or application of water or chemicals to the affected areas, as necessary.
- 13. <u>Plant Operation</u> Problems: If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by fire, wind or other cause, the owner or operator shall notify the DEP Central District office as soon as possible, but at least within (1) working day, excluding weekends and holidays. The notification shall include: pertinent information as to the cause of the problem; the steps being taken to correct the problem and prevent future recurrence; and where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with the conditions of this permit and the regulations. [Rule 62-4.130, F.A.C.]
- 14. Operating Procedures: Operating procedures shall include good operating practices and proper training of all operators and supervisors. The good operating practices shall meet the guidelines and procedures as established by the equipment manufacturers. All operators (including supervisors) of air pollution control devices shall be properly trained in plant specific equipment. [Rule 62-4.070(3), F.A.C.]
- 15. <u>Circumvention</u>: The owner or operator shall not circumvent the air polittion control equipment or allow the emission of air pollutants without this equipment operating properly. [Rules 62-210.650, F.A.C.]

- 16. <u>Maximum allowable hours</u> of operation for the 250 MW Combined Cycle Plant are 8760 hours per year while firing natural gas. Fuel oil firing of the combustion turbine is permitted for a maximum of 720 hours per year. [Applicant Request, Rule 62-210.200, F.A.C. (Definitions Potential Emissions)]
- 17. <u>Simple Cycle Operation</u> The plant may be operated in simple cycle mode. Different limits apply depending upon whether simple cycle operation is of an intermittent nature, such as due to maintenance of equipment following the combustion turbine or temporary electrical demand fluctuations, or of a longer term nature, such as a decision to not install the heat recovery steam generator or long term electrical demand situations.

CONTROL TECHNOLOGY

- 18. Dry Low NO_X (DLN) combustors shall be installed on the stationary combustion turbine and Low NO_X burners shall be installed in the duct burner arrangement to comply with the NO_X emissions limits listed in Specific Conditions 24 and 25 [Design, Rules 62-4.070 and 62-212.400, F.A.C.]
- 19. A water injection system shall be installed for use when firing No. 2 or superior grade distillate fuel oil for control of NO_X emissions. [Design, Rules 62-4.070 and 62-212.400, F.A.C.]
- 20. The permittee may design the heat recovery steam generator to accommodate installation of selective catalytic reduction or oxidation catalyst technologies and comply with the corresponding NO_X and CO limits listed in Specific Conditions 24, 25 and 26. [Rules 62-212.400 and 62-4.070, F.A.C.]
- 21. The permittee shall design these units to accommodate adequate testing and sampling locations for compliance with the applicable emission limits (per each unit) listed in Specific Conditions No. 24 through 29. [Rule 62-4.070, Rule 62-204.800, F.A.C., and 40 CFR60.40a(b)]
- 22. The permittee shall provide manufacturer's emissions performance versus load diagrams for the DLN and wet injection systems prior to their installation. DLN systems shall each be tuned upon initial operation to optimize emissions reductions and shall be maintained to minimize NO_X emissions and CO emissions. [Rule 62-4.070, and 62-210.650 F.A.C.]
- 23. Drift eliminators shall be installed on the cooling tower to reduce PM/PM₁₀ emissions.

EMISSION LIMITS AND STANDARDS

24. The following table is a summary of the BACT determination and is followed by the applicable specific conditions. Values for NO_X are corrected to 15 % O₂. These limits or their equivalent in terms of lb/hr or NSPS units, as well as the applicable averaging time, are followed by the applicable specific conditions. Each Unit shall be tested alone to comply with the applicable NSPS and as a Combined Unit to comply with the BACT limits as indicated below: [Rules 62-212.400, 62-204.800(7)(b) (Subpart GG and Dc), 62-210.200 (Definitions-Potential Emissions) F.A.C.]

POLLUTANT	CONTROL TECHNOLOGY	BACT DETERMINATION
PM/PM ₁₀ , VE	Pipeline Natural Gas Good Combustion	10 Percent Opacity
voc	As Above	1.4 ppm (Gas, CT on, DB off) 4 ppm (Gas, CT and DB on)) 10 ppm for F.O.
СО	As Above	12 ppm (Gas, CT on, DB off) 20 ppm (Gas, CT and DB on) 30 ppm for F.O.
NO _X (CT on, DB off)	DLN, or DLN & SCR for gas WI or SCR for fuel oil 720 Hours on fuel oil with DB On or Off	9 ppm (DLN) or 6 ppm (SCR) for gas 42 ppm (WI) or 15 ppm (SCR) for fuel oil 12/42 ppm (gas/oil) Intermittent Simple Cycle
NO _X (CT and DB on)	DLN & Low NO _X , or DLN & SCR for gas WI & Low NO _X , or SCR for fuel oil Duct burner only fires natural gas	9.4 ppm (DLN) or 6 ppm (SCR) for gas 42 ppm (WI) or 15 ppm (SCR) for fuel oil DB limited to 0.4 lb/MW-hr

25. Nitrogen Oxides (NO_X) Emissions:

- A. Combined Cycle and Continuous Simple Cycle Operation
- The concentration of NO_X in the stack exhaust gas, with the combustion turbine operating on gas (fuel oil) and the duct burner off shall not exceed 9 (42) ppmvd at 15% O₂ (24-hr block average), and with the combustion turbine operating and the duct burner on shall not exceed 9.4 (42) ppmvd at 15% O₂ (24-hour block average). Compliance will be determined by the continuous emission monitor (CEMS). Emissions of NO_X in the stack exhaust gas (at ISO conditions) with the combustion turbine operating shall not exceed 65 (303) pounds per hour (lb/hr) with the duct burner off and 68 (303) lb/hr with the duct burner on to be demonstrated by initial stack test. [40CFR60 Subpart GG and Rule 62-212.400, F.A.C.]
- If selective catalytic reduction (SCR) technology is installed, the concentration of NO_X in the stack exhaust gas, with the combustion turbine operating on gas (fuel oil) and the duct burner on or off, shall not exceed 6 (15) ppmvd @15% O₂ on a 3-hr block average. Compliance shall be determined by the continuous emission monitor (CEMS). Emissions of NO_X calculated as NO₂ in the stack exhaust gas (at ISO conditions) with the combustion turbine operating shall not exceed 43 (108) pounds per hour (lb/hr) with the duct burner on or off to be demonstrated by initial stack test. [40CFR60 Subpart GG and Rule 62-212.400, F.A.C.]
- Unless SCR is employed, emissions of NO_X from the duct burner shall not exceed 0.4 lb/MW-hr (gross output). [Rule 62-212.400, F.A.C.]
- When NO_X monitoring data is not available, substitution for missing data shall be handled as required by Title IV (40 CFR 75) to calculate any specified average time.

- B. Intermittent Simple Cycle Operation
- The concentration of NO_X in the stack exhaust gas, with the combustion turbine operating on gas (fuel oil) shall not exceed 12 (42) ppmvd at 15% O₂ (24-hr block average). Emissions of NO_X in the stack exhaust gas (at ISO conditions) with the combustion turbine operating shall not exceed 86 (303) pounds per hour (lb/hr). [Rule 62-212.400, F.A.C. and 40CFR60 Subpart GG]
- When NO_X monitoring data is not available, substitution for missing data shall be handled as required by Title IV (40 CFR 75) to calculate any specified average time.
- 26. <u>Carbon Monoxide (CO) Emissions</u>: Emissions of CO in the stack exhaust gas (at ISO conditions) with the combustion turbine operating on gas (fuel oil) shall exceed neither 12 (20) ppm nor 43 (71) lb/hr with the duct burner off and neither 20 (30) ppm nor 71 (108) lb/hr with the duct burner on to be demonstrated by stack test using EPA Method 10. [Rule 62-21: 400, F.A.C.]
- 27. Volatile Organic Compounds (VOC) Emissions: Emissions of VOC in the stack exhaust gas (at ISO conditions) with the combustion turbine operating on gas (fuel oil) shall exceed neither 1.4 (10) ppm nor 3 (21.4) lb/hr with the duct burner off and neither 4 (10) ppm nor 8.5 (21.4) lb/hr with the duct burner on to be demonstrated by initial stack test using EPA Method 18, 25 or 25A. [Rule 62-212.400, F.A.C.]
- 28. Sulfur Dioxide (SO₂) emissions: SO₂ emissions shall be limited by firing pipeline natural gas (sulfur content less than 20 grains per 100 standard cubic foot) or by firing No. 2 or superior grade distillate fuel oil with a maximum 0.05 percent sulfur for 720 hours per year. Compliance with this requirement in conjunction with implementation of the Custom Fuel Monitoring Schedule in Specific Conditions 49 and 50 will demonstrate compliance with the applicable NSPS SO₂ emissions limitations from the duct burner or the combustion turbine. Emissions of SO₂ shall not exceed 38.1 tons per year. [40CFR60 Subpart GG and Rules 62-4.070, 62-212.400, and 62-204.800(7), F.A.C. to avoid PSD Review]
- 29. <u>Visible emissions (VE)</u>: VE emissions shall serve as a surrogate for PM/PM₁₀ emissions from the combustion turbine operating with or without the duct burner and shall not exceed 10 percent opacity from the stack in use. [Rules 62-4.070, 62-212.400, and 62-204.800(7), F.A.C.]

EXCESS EMISSIONS

30. Excess emissions resulting from startup, shutdown, or malfunction shall be permitted provided that best operational practices are adhered to and the duration of excess emissions shall be minimized. Excess emissions occurrences shall in no case exceed two hours in any 24-hour period except during both "cold start-up" to or shutdowns from combined cycle plant operation. During start-up to simple cycle operation, up to one hour of excess emissions are allowed:

During cold start-up to combined cycle operation, up to four hours of excess emissions are allowed. During shutdowns from combined cycle operation, up to three hours of excess emissions are allowed. Cold start-up is defined as a startup to combined cycle operation following a complete shutdown lasting at least 48 hours. [Applicant Request, G.E. Combined Cycle Startup Curves Data and Rule 62-210.700, F.A.C.].

- 31. Excess emissions entirely or in part by poor maintenance, poor operation, or any other equipment or process failure that may reasonably be prevented during startup, shutdown or malfunction, shall be prohibited pursuant to Rule 62-210.700, F.A.C. These emissions shall be included in the 24-hr average for NO_X.
- 32. Excess Emissions Report: If excess emissions occur for more than two hours due to malfunction, the owner or operator shall notify DEP's Central District office within (1) working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Department may request a written summary report of the incident. Pursuant to the New Source Performance Standards, all excess emissions shall also be reported in accordance with 40 CFR 60.7, Subpart A. Following this format, 40 CFR 60.7, periods of startup, shutdown, malfunction, shall be monitored, recorded, and reported as excess emissions when emission levels exceed the permitted standards listed in Specific Condition No. 24 and 25. [Rules 62-4.130, 62-204.800, 62-210.700(6), F.A.C., and 40 CFR 60.7 (1997 version)].

COMPLIANCE DETERMINATION

- 33. Compliance with the allowable emission limiting standards shall be determined within 60 days after achieving the maximum production rate, but not later than 180 days of initial operation of the unit, and annually thereafter as indicated in this permit, by using the following reference methods as described in 40 CFR 60, Appendix A (1997 version), and adopted by reference in Chapter 62-204.800, F.A.C.
- 34. Initial (I) performance tests (for both fuels) shall be performed by the deadlines in Specific Condition 33. Initial tests shall also be conducted after any substantial modifications (and shake down period not to exceed 100 days after re-starting the CT) of air pollution control equipment such as installation of SCR or change of combustors. Annual (A) compliance tests shall be performed during every federal fiscal year (October 1 September 30) pursuant to Rule 62-297.310(7), F.A.C., on these units as indicated. The following reference methods shall be used. No other test methods may be used for compliance testing unless prior DEP approval is received in writing.
 - EPA Reference Method 9, "Visual Determination of the Opacity of Emissions from Stationary Sources" (I, A).
 - EPA Reference Method 10, "Determination of Carbon Monoxide Emissions from Stationary Sources" (I, A).

- EPA Reference Method 20, "Determination of Oxides of Nitrogen Oxide, Sulfur Dioxide and Diluent Emissions from Stationary Gas Turbines." Initial test only for compliance with 40CFR60 Subpart GG, Dc. NO_X BACT limits compliance by CEMs (24-hr average or 3-hr average if SCR is installed).
- EPA Reference Method 18, 25 and/or 25A, "Determination of Volatile Organic Concentrations." Initial test only.
- 35. Continuous compliance with the NO_X emission limits: Continuous compliance with the NO_X emission limits shall be demonstrated with the CEM system based on the applicable averaging time of 24-hr block average (DLN) or a 3-hr average (if SCR is used). Based on CEMS data, a separate compliance determination is conducted at the end of each operating day (or 3-hr period when applicable) and a new average emission rate is calculated from the arithmetic average of all valid hourly emission rates from the previous operating day (or 3-hr period when applicable). Valid hourly emission rates shall not include periods of start up, shutdown, or malfunction unless prohibited by 62-210.700 F.A.C. A valid hourly emission rate shall be calculated for each hour in which at least two NO_X concentrations are obtained at least 15 minutes apart. These excess emissions periods shall be reported as required in Condition 32. [Rules 62-4.070 F.A.C., 62-210.700, F.A.C., 40 CFR 75 and BACT]
- 36. Compliance with the SO₂ and PM/PM₁₀ emission limits: Not withstanding the requirements of Rule 62-297.340, F.A.C., the use of pipeline natural gas, is the method for determining compliance for SO₂ and PM₁₀. For the purposes of demonstrating compliance with the 40 CFR 60.333 SO₂ standard, ASTM methods D4084-82 or D3246-81 (or equivalent) for sulfur content of gaseous fuel shall be utilized in accordance with the EPA-approved custom fuel monitoring schedule or natural gas supplier data may be submitted or the natural gas sulfur content referenced in 40 CFR 75 Appendix D may be utilized. However, the applicant is responsible for ensuring that the procedures in 40 CFR60.335 or 40 CFR75 are used when determination of fuel sulfur content is made. Analysis may be performed by the owner or operator, a service contractor retained by the owner or operator, the fuel vendor, or any other qualified agency pursuant to 40 CFR 60.335(e) (1997 version).
- 37. Compliance with CO emission limit: An initial test for CO, shall be conducted concurrently with the initial NO_X test, as required. The initial NO_X and CO test results shall be the average of three valid one-hour runs. Annual compliance testing for CO may be conducted at less than capacity when compliance testing is conducted concurrent with the annual RATA testing for the NO_X CEMS required pursuant to 40 CFR 75. Alternatively to annual testing in a given year, periodic tuning data may be provided to demonstrate compliance in the year the tuning is conducted.
- 38. <u>Compliance with the VOC emission limit</u>: An initial test is required to demonstrate compliance with the VOC emission limit. Thereafter, the CO emission limit and periodic tuning data will be employed as surregate and no annual testing is required.

- 39. Testing procedures: Testing of emissions shall be conducted with the combustion turbine operating at permitted capacity. Permitted capacity is defined as 95-100 percent of the maximum heat input rate allowed by the permit, corrected for the average ambient air temperature during the test (with 100 percent represented by a curve depicting heat input vs. ambient temperature). If it is impracticable to test at permitted capacity, the source may be tested at less than permitted capacity. In this case, subsequent operation is limited by adjusting the entire heat input vs. ambient temperature curve downward by an increment equal to the difference between the maximum permitted heat input (corrected for ambient temperature) and 105 percent of the value reached during the test until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purposes of additional compliance testing to regain the permitted capacity. Procedures for these tests shall meet all applicable requirements (i.e., testing time frequency, minimum compliance duration, etc.) of Chapters 62-204 and 62-297, F.A.C.
- 40. <u>Test Notification</u>: The DEP's Central District office shall be notified, in writing, at least 30 days prior to the initial performance tests and at least 15 days before annual compliance test(s).
- 41. Special Compliance Tests: The DEP may request a special compliance test pursuant to Rule 62-297.310(7), F.A.C., when, after investigation (such as complaints, increased visible emissions, or questionable maintenance of control equipment), there is reason to believe that any applicable emission standard is being violated.
- 42. <u>Test Results</u>: Compliance test results shall be submitted to the DEP's Central District office no later than 45 days after completion of the last test run. [Rule 62-297.310(8), F.A.C.].

NOTIFICATION, REPORTING, AND RECORDKEEPING

- 43. <u>Records</u>: All measurements, records, and other data required to be maintained by KUA shall be recorded in a permanent form and retained for at least five (5) years following the date on which such measurements, records, or data are recorded. These records shall be made available to DEP representatives upon request.
- 44. <u>Compliance Test Reports</u>: The test report shall provide sufficient detail on the tested emission unit and the procedures used to allow the Department to determine if the test was properly conducted and if the test results were properly computed. At a minimum, the test report shall provide the applicable information listed in Rule 62-297.310(8), F.A.C.

MONITORING REQUIREMENTS

45. Continuous Monitoring System: The permittee shall install, calibrate, maintain, and operate a continuous emission monitor in the stack to measure and record the nitrogen oxides emissions from these units. Periods when NO_X emissions (ppmvd @ 15% oxygen) are above the BACT standards, listed in Specific Condition No 24 and 25, shall be reported to the DEP Central District Office within one working day (verbally) followed up by a written explanation not later than three (3) working days (alternatively by facsimile within one working day). [Rules 62-204.809, 62-210.700, 62-4.130, 62-4.160(8), F.A.C and 40 CFR 60.7 (1997 version)].

- 46. CEMS for reporting excess emissions: Subject to EPA approval, the NO_X CEMS shall be used in lieu of the requirement for reporting excess emissions in accordance with 40 CFR 60.334(c)(1), Subpart GG (1997 version). Upon request from DEP, the CEMS emission rates for NO_X on the CT shall be corrected to ISO conditions to demonstrate compliance with the NO_X standard established in 40 CFR 60.332.
- 47. CEMS in lieu of Water to Fuel Ratio: Subject to EPA approval, the NO_X CEMS shall be used in lieu of the water/fuel monitoring system for reporting excess emissions in accordance with 40|CFR 60.334(c)(1), Subpart GG (1997 version). Subject to EPA approval, the calibration of the water/fuel monitoring device required in 40 CFR 60.335 (c)(2) (1997 version) will be replaced by the 40 CFR 75 certification tests of the NO_X CEMS. Upon request from DEP, the CEMS emission rates for NO_X on this Unit shall be corrected to ISO conditions to demonstrate compliance with the NO_X standard established in 40 CFR 60.332.
- 48. Continuous Monitoring System Reports: The monitoring devices shall comply with the certification and quality assurance, and any other applicable requirements of Rule 62-297.520, F.A.C., 40 CFR 60.13, including certification of each device in accordance with 40 CFR 60, Appendix B, Performance Specifications and 40 CFR 60.7(a)(5) or 40 CFR Part 75. Quality assurance procedures must conform to all applicable sections of 40 CFR 60, Appendix F or 40 CFR 75. The monitoring plan, consisting of data on CEM equipment specifications, manufacturer, type, calibration and maintenance needs, and its proposed location shall be provided to the DEP Emissions Monitoring Section Administrator and EPA for review no later than 45 days prior to the first scheduled certification test pursuant to 40 CFR 75.62.
- 49. Natural Gas Monitoring Schedule: A custom fuel monitoring schedule pursuant to 40 CFR 75 Appendix D for natural gas may be used in lieu of the daily sampling requirements of 40 CFR 60.334 (b)(2) provided the following requirements are met:
 - The permittee shall apply for an Acid Rain permit within the deadlines specified in 40 CFR 72.30.
 - The permittee shall submit a monitoring plan, certified by signature of the Designated Representative, that commits to using a primary fuel of pipeline supplied natural gas (sulfur content less than 20 gr/100 scf pursuant to 40 CFR 75.11(d)(2)).
 - Each unit shall be monitored for SO₂ emissions using methods consistent with the requirements of 40 CFR 75 and certified by the USEPA.

This custom fuel monitoring schedule will only be valid when pipeline natural gas is used as a primary fuel. If the primary fuel for these units is changed to a higher sulfur fuel, SO₂ emissions must be accounted for as required pursuant to 40 CFR 75.11(d).

- 50. <u>Fuel Oil Monitoring Schedule</u>: The following monitoring schedule for No. 2 or superior grade fuel oil shall be followed: For all bulk shipments of No. 2 fuel oil received at this facility an analysis which reports the sulfur content and nitrogen content of the fuel shall be provided by the fuel vendor. The analysis shall also specify the methods by which the analyses were conducted and shall comply with the requirements of 40 CFR 60.335(d).
- 51. Determination of Process Variables:
 - The permittee shall operate and maintain equipment and/or instruments necessary to determine process variables, such as process weight input or heat input, when such data is needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.
 - Equipment and/or instruments used to directly or indirectly determine such process variables, including devices such as belt scales, weigh hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value [Rule 62-297.310(5), F.A.C]
- 52. <u>Subpart Dc Monitoring and Recordkeeping Requirements:</u> The permittee shall comply with all applicable requirements of this Subpart [40CFR60, Subpart Dc].

The Orlando Sentinel

Osceola County 804 W. Emmett Street Kissimmee, Florida 34741

Date: January 11, 1999

This is to certify that the attached advertisements did publish in The Orlando Sentinel, <u>JANUARY</u> , 1999.	RECEIVED
The Orlando Sentinel, JANUARY	JAN 21 1999
Hall Grant	BUREAU OF AIR REGULATION
Advertising Account The Osceola Sentine	
STATE OF FLORIDA COUNTY OF OSCEOLA	
I, the undersigned authority, hereby certify that the foregoing is a true and of the instrument presented to me by as the original of such instrument.	d correct copy
WITNESS my hand and official seal, this day of day of	Jan.
CYRISE A. FRANEY My Comm Exp. 1/23/2002 No. 0C697517 Li/Personally Known [1] Other I.D. Notary Public State of Florida at La	Travely
My commission expires Ja. 23, 2002.	
CC: T. Heron, BAR Central District	PA PS

PUBLIC NOTICE OF INTENT TO ISSUE PSD PERMIT

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

DEP File No. PSD-FL-254

Kissimmee Utility Authority Cane Island Power Park Unit No. 3 Osceola County

The Department of Environmental Protection (Department) gives notice of its intent to issue a permit under the requirements for the Prevention of Significant Deterioration (PSD) of Air Quality to The Kissimmee Utility Authority (KUA). The permit is to construct: a nominal 250 megawatt (MW) natural gas and distillate fuel oil-fired combustion turbine with a heat recovery steam generator and supplemental duct burners; a 1.0 million gallon fuel oil storage tank; a 130-foot main stack; and a 100 foot bypass stack at the Cane Island Power Park at 6075 Old Tampa Highway, Osceola County. A Best Available Control Technology (BACT) determination was required for particulate matter (PM/PM₁₀), nitrogen oxides (NOx), volatile organic compounds (VOC) and carbon monoxide (CO) pursuant to Rule 62-212.400, F.A.C. and 40 CFR 52.21. The applicant's name and address are The Kissimmee Utility Authority, 1701 West Carroll Street, Kissimmee, Florida 34741-6804.

The new unit will be a General Electric PG7241FA combustion turbine-electrical generator which will generate 167 MW (nominal) in simple cycle mode or 250 MW in combined mode. The unit will operate primarily on natural gas and will be permitted to operate 8760 hours per year of which no more than 720 will be on 0.05 percent sulfur distillate fuel oil. The supplemental duct burners will operate only during high ambient temperature and will partially compensate for lower power capacity achievable at high temperature.

NOx emissions will be controlled by Dry Low NOx (DLN) combustors capable of achieving emissions of 9 parts per million by volume at 15 percent oxygen. Lower emission limits will apply if the KUA chooses selective catalytic reduction in lieu of or in conjunction with DLN technology. NOx will be controlled under the minimal back-up fuel oil operation by water or steam injection. SO₂ and PM/PM₁₀ will be limited by use of clean fuels. Emissions of VOC will be controlled by good combustion practices. Emissions of CO will be similarly controlled unless the KUA chooses to install an oxidation catalyst.

The maximum emissions in tons per year based on the original application and prior to final selection of the combustion turbine are summarized below. NOx, VOC, and CO emissions will be substantially lower as a result of the emissions characteristics of the GE combustion turbine selected since receipt of the application and the Department's proposed BACT determination.

Pollutants_	Maximum Potential Emissions	PSD Significant Emission Rate
PM/PM ₁₀	109	- 25/15
SO ₂	38	40
NO _x	823	40
VOC	173	40
CO	3818	100
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An air quality impact analysis was conducted. Maximum predicted impacts due to proposed emissions from the project are less than the applicable PSD Class I and Class II significant impact levels.

The Department will accept written comments and requests for a public hearing (meeting) concerning the proposed permit issuance action for a period of 30 (thirty) days from the date of publication of "Public Notice of Intent to Issue PSD Permit." Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

shall revise the proposed permit and require, if applicable, another Public Notice.

- This PSD permitting action is being coordinated with a certification under the Power Plant Siting Act (Sections 403:501-519, F.S.). If a petition for an administrative hearing on the Department's Intent to Issue is filed by a substantially affected person, that hearing shall be consolidated with the certification hearing, as provided under Section 403.507(3).
- The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below. Mediation is not available in this proceeding.
- A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under Sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under Section 120.60(3), however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57 F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205 of the Florida Administrative Code.
- A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle the petitioner to relief; and (f) A demand for relief.
- A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301.
- Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

A complete project file is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Dept. of Environmental Protection Bureau of Air Regulation 111 S. Magnolia Drive, Suite 4 Tallahassee, Florida 32301 Telephone: 850/488-0114

Fax: 850/922-6979

Dept. of Environmental Protection Central District Office 3319 Maguire Boulevard, Suite 232 Orlando, Florida 32803-3767 Telephone: 407/894-7555

Fax: 407/897-5963

Kissimmee Utility Authority 1701 West Carroll Street Kissimmee, Florida 34741-6804 Telephone: 407/933-7777

Fax: 407/847-0787

The complete project file includes the Draft Permit, the application, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the New Resource Review Section at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 850/488-0114, for additional information.

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KUA-LINIT 3 PSD-FL-254 File

The Orlando Sentinel

Oeccola County 804 W. Emmett Street Kissimmee, Florida 34741

Meaning, Harana	Date: Jan 15, 1999
This is to certify that the The Osceola Sentinel,	attached advertisements did publish in Anuary 9, 1999.
TO THE TOWN THE	Advertising Account Executive The Osceola Sentiael
STATE OF FLORIDA COUNTY OF OSCEOLA	
of the instrument presented to n	reby certify that the foregoing is a true and correct copy ne by <u>Rodney Chevalier</u> he original of such instrument. I seal, this <u>15 th</u> day of <u>Tax.</u>
WITNESS my hand and official 1999. CYRESE A. FRANEY PUBLIC No. 00097517 M. CRESCAL FRANE LIGHT LO.	Cyrise A. Francy
My commission expires	Notary Public State of Florida at Large 23, 2002
Post-it Fax Note 7671 Date [-] 5 # of pages To ALINETO From Ben St Co./Dapt. DEP Phone # Phone # 407/847-0	narma.