STATE OF FLORIDA
DIVISION OF ADMINISTRATIVE HEARINGS

AES CEDAR BAY, INC., and SEMINOLE KRAFT CORPORATION,	)	
Petitioner,	)	
v.	)	CASE NO. 88-5740
DEPARTMENT OF ENVIRONMENTAL REGULATION,	)	
Respondent.	)	
CITY OF JACKSONVILLE and DEPARTMENT OF COMMUNITY AFFAIRS,	)	
Intervenors.	)	

RECOMMENDED ORDER

The parties having filed the parties' joint proposed recommended order, accurately reciting the facts proven at hearing, it is

RECOMMENDED:

That the parties' joint proposed recommended order be adopted as the agency's own.

DONE and ENTERED this 14th day of April, 1989, at Tallahassee, Florida.

ROBERT T. BENTON, II
Hearing Officer
Division of Administrative Hearings
The DeSoto Building
1230 Apalachee Parkway
Tallahassee, Florida 32399-1550
(904) 488-9675

Filed with the Clerk of the
Division of Administrative Hearings
this 17th day of April, 1989.

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THE PARTIES' JOINT PROPOSED RECOMMENDED ORDER
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STATE OF FLORIDA
DIVISION OF ADMINISTRATIVE HEARINGS

AES CEDAR BAY, INC. and SEMINOLE KRAFT CORPORATION,	)	
Petitioner,	)	
vs.	)	CASE NO. 88-5740
	)	PPSA PA 87-23
DEPARTMENT OF ENVIRONMENTAL REGULATION,	)	
Respondent.	)	

THE PARTIES' JOINT PROPOSED RECOMMENDED ORDER

Pursuant to Notice, the Division of Administrative Hearings, by its duly designated Hearing Officer, Robert T. Benton, II, held a land use hearing on this case on February 14, 1989, in Jacksonville, Florida. The issue for determination is whether the proposed site for the power plant, recovery boiler and associated facilities is consistent and in compliance with the City of Jacksonville's land use plans and zoning ordinances. The appearances are as follows:

For Petitioner: AES Cedar Bay, Inc., and Seminole Kraft Corporation:	TERRY COLE Oertel, Hoffman, Fernandez & Cole, P.A. Post Office Box 6507 Tallahassee, Florida 32314
For Respondent: Florida Department of Environmental Regulation:	BETSY HEWITT 2600 Blair Stone Road Tallahassee, Florida 32399

Department of Community Affairs:	C. LAWRENCE KEESEY L. KATHRYN FUNCHESS 2740 Centerview Drive Tallahassee, Florida 32399
City of Jacksonville:	RICHARD L. MAGUIRE Towncentre, Suite 715 421 West Church Street Jacksonville, Florida 32202

Preface

References to the record of this proceeding will be denoted as Prehearing Stipulation (Preh. Stip.), followed by a page number, and Exhibit (Exh.) followed by an exhibit number, and March 28, 1989 letter to Robert T. Benton, II, (3/28/89 letter to R. Benton).

Proposed Findings of Fact Parties and General Public

1. Petitioners AES CEDAR BAY, Inc. ("AES"), and SEMINOLE KRAFT CORPORATION ("Seminole Kraft") have applied to the Department of Environmental Regulation for site certification to authorize the construction and operation of an electrical power plant, recovery boiler, and associated facilities in Jacksonville, Florida, pursuant to the Florida Electrical Power Plant Siting Act, Part II, Chapter 403, F.S. (Exh. 2A).

2. The Florida Department of Environmental Regulation ("DER") and the Department of Community Affairs ("DCA") appeared as statutory parties pursuant to 403.508(4) (a).

3. The City of Jacksonville, having moved for and been granted recognition as a party, also appeared.

4. The Florida Public Service Commission, while having timely filed their notice to appear as a party, chose not to participate in the land use portion of this proceeding. They however, had no objection to the prehearing stipulation.

5. St. Johns River Water Management District, which is a statutory party under Section 403.508(4) (a), did not appear as a party in this portion of the proceeding.

6. Counsel for the parties were required to meet no later than January 23, 1989, in order to complete all matters that would expedite the prehearing and hearing in this proceeding. This

meeting resulted in a prehearing stipulation by the parties. Background of the Proposed Facility

7. As provided by Sections 120.57(1)(b)4 and 403.508(5), F.S., the following persons were allowed to present written communications for the Hearing Officer's consideration: Earl M. Barker, Jr., for Florida Crown Development Corporation and Industrial Park Development Corporation; William C. Bostwick, and Charles W. Bostwick, for Broward River Riparian Owners'; and William Cowan Val Bostwick, Jr., of Rogers, Taylor, and Co., Realtors, Jacksonville, Florida.

8. The following exhibits were offered at hearing by Petitioners, and admitted into evidence for which there were no objections:

LIST OF EXHIBITS

1. Site Certification Application for the Cedar Bay Cogeneration Project. DOAH Case No. 88-5740.

2. Public Notices

a. DER Notice of Land Use and Zoning Hearing

b. City of Jacksonville Notice of Hearing on Rezoning

3. Jacksonville Land Use Regulations Chapters 650-658 through Supplement 11.

4. 2005 Comprehensive Plan for the City of Jacksonville.

5. North District Plan.

6. Jacksonville Zoning Maps.

1) No. 1527-2-9, Panel No. 337

2) No. 1527-2-10, Panel No. 338

3) No. 1527-5-15, Panel No. 347

4) No. 1527-5-16, Panel No. 348

7. Letter from John Crofts to Julie Blunden dated January 11, 1989.

8. Seminole Kraft application for rezoning dated December 21, 1988.

9. Seminole Kraft application for exception dated January 24, 1989.

10. Prehearing Stipulation

9. The following witnesses appeared on behalf of Petitioners and other parties:

Witnesses of Petitioner and other parties

a. Julie Blunden
b. John Crofts, AICP,
Deputy Director of Planning,
City of Jacksonville Planning Department
Expert - Land Use Planning.
Background on the Land Use Hearing

10. Petitioners' Site Certification Application, Number PA 88-24, was declared complete as of November 14, 1988. (Exh. 1; Preh. Stip. p.1).

11. On December 31, 1988, DER properly noticed and advertised this hearing in the Florida Times Union, which is published in Jacksonville, Florida. (Exh. 2; Preh. Stip. p.3).

12. The proposed site for the 28 acre power plant is located in the northwestern portion of Jacksonville on a portion of the 425 acre Seminole Kraft Corporation paper mill property, approximately 2 miles east of Main Street (U.S. 17) near the conjunction of Hecksher Drive and Eastport Road. (Exh. 2A).

13. The proposed site will house three circulating fluidized bed boilers, a new chemical recovery boiler, new multiple effect evaporators, smelt dissolving tanks, coal pile, cooling towers and related facilities. (Exh. 2A).

14. New turbines will be generating 42 MW of electricity for use in the paper mill and 225 MW for sale. (Exh. 2A).

15. A short transmission line will connect the facility to an existing Jacksonville Electric Authority transmission line (Exh. 2A).

16. The proposed site for the facilities is currently used and zoned for Industrial Heavy District (IH), pursuant to Section 656.323, Comprehensive Planning Ordinance, City of Jacksonville. (Preh. Stip. p.2).

17. As stipulated, the proposed facilities and associated transmission lines are consistent and in compliance with the City's existing land use plan and zoning ordinance. (Preh. Stip. pp. 2 and 4).

18. An application to rezone a 1.9 acre parcel zoned Open Rural (OR) has been withdrawn. (3/28/89 letter to R. Benton).

19. Petitioners brought their site into compliance with the existing land use plans and zoning ordinances by deleting the 1.9 acre parcel from the application and adding one acre for construction of associated facilities in an area zoned IH. (3/28/89 letter to R. Benton).

20. The one acre parcel added is within the original overall site boundary. (Exh. 1, P. 2-4).

21. Seminole Kraft Corporation currently operates an industrial wastewater treatment system. The system's existing wastewater treatment ponds, located in property designated as Open Rural (OR), are currently in compliance with the City's land use plan and zoning ordinance due to their nature as an essential service to the Seminole Kraft facilities, Section 656.413, Comprehensive Planning Ordinance. (Preh. Stip. pp. 3 and 4).

22. Petitioners propose to use these ponds to treat a portion of the AES wastewater for pH and suspended solids removal. (Preh. Stip. p.3).

23. The ordinance refers to a single industrial use under the Essential Services definition. Therefore, because of the separate ownership of the new facilities, the treatment of the AES wastewater by Seminole Kraft may be considered an expanded use even though the size, flow, or essential nature of the ponds is unaffected. (Preh. Stip. P. 3).

24. As stipulated, the site is consistent and in compliance with the City's existing land use plan and, except for the proposed use of the wastewater treatment system, is consistent and in compliance with existing zoning ordinances. (Preh. Stip. P. 4).

25. Therefore, an exception is needed to allow the existing wastewater treatment system to be used to treat wastewater from AES.

26. This exception was granted by the City on March 16, 1989. (3/28/89 letter to R. Benton).

27. Accordingly, the site is consistent and in compliance with the existing land use plans and zoning ordinances of the City, based on the action by the City.

CONCLUSIONS OF LAW

28. The Division of Administrative Hearings has jurisdiction over the parties to and the subject matter of this proceeding pursuant to Section 120.57(1), Fla. Stat.

29. This proceeding is governed by the Florida Power Plant Siting Act, Chapter 403, Part II, Fla. Stat. An applicant for Power Plant Site Certification must demonstrate, pursuant to 403.508, Fla. Stat., that the proposed site is consistent and in compliance with existing land use plans and zoning ordinances.

30. The City of Jacksonville has adopted Land Use Regulations which include a zoning code, Chapter 658 (see Exhibit 3), and a comprehensive land use plan entitled 2005 Comprehensive Plan, with a supplement, North District Plan (see Exhibits 4 and 5).

31. As stipulated, the proposed site and associated facilities and transmission lines are consistent and in compliance with the City's existing comprehensive land use plan.

32. Also as stipulated, except for the 1.9 acre parcel and the use of the wastewater treatment facilities, the site and associated facilities and transmission lines comply with the City's existing zoning ordinances.

33. The deletion of the 1.9 acre parcel from the application and the addition of one acre in the zone designated as IH now brings the site into compliance with the zoning ordinance pursuant to 656.323, Comprehensive Planning Ordinance, City of Jacksonville.

34. The exception granted by the City of Jacksonville for use of the wastewater treatment system brings the site into

compliance with the existing zoning ordinance pursuant to Section 656.413, Comprehensive Planning Ordinance, City of Jacksonville.

Recommendation

Based on the foregoing, it is RECOMMENDED that:

The application of AES Cedar Bay Corporation and Seminole Kraft Corporation for Power Plant Site Certification, pursuant to Section 403.508, Fla. Stat., be found in compliance with existing City of Jacksonville land use plans and zoning ordinances.

Respectfully submitted and entered this 11th day of April 1989, in Tallahassee, Leon County, Florida.

_____

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Filed with the Clerk of the
Division of Administrative Hearings,
this 31st day of March 1989.

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City of Jacksonville

TERRY COLE
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AES Cedar Bay, Inc. and
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LAURENCE KEESEY
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BETSY HEWITT
Department of Environment
Regulation

STATE OF FLORIDA
DIVISION OF ADMINISTRATIVE HEARINGS

AES CEDAR BAY, INC. and SEMINOLE KRAFT CORPORATION,	)	
Petitioners,	)	
vs.	)	
DEPARTMENT OF ENVIRONMENTAL REGULATION,	)	
Respondent,	)	
and	)	
CITY OF JACKSONVILLE, DEPARTMENT OF COMMUNITY AFFAIRS, PUBLIC SERVICE COMMISSION, ST. JOHNS RIVER WATER MANAGEMENT DISTRICT, JACKSONVILLE ELECTRIC AUTHORITY, CHARLES W. BOSTWICK, WILLIAM C. BOSTWICK, BARNETT BANKS TRUST COMPANY, N.A., IMESON INTERNATIONAL PARK, INC., and INDUSTRIAL PARK DEVELOPMENT CORPORATION,	)	CASE NO. 88-5740
Intervenors.	)	

RECOMMENDED ORDER

This matter came on for hearing in Jacksonville, Florida, before Robert T. Benton, II, Hearing Officer of the Division of Administrative Hearings, on February 5, 6, 7, 20 and 21, 1990. With the agreement of the parties and at their request, April 5,

1990, was established as the deadline for filing proposed recommended orders.

Petitioners, respondent, and all intervening public agencies, except the St. Johns River Water Management District (SJRWMD), joined in filing a joint proposed recommended order (on which the recommended order has relied heavily.) The Department of Environmental Regulation (DER) did not join in one of the 105 paragraphs proposed as findings of fact in the joint proposed recommended order and declined to join in a corresponding, proposed conclusion of law, but did not propose alternatives.

Charles W. Bostwick, William C. Bostwick and the Barnett Banks Trust Company, N.A. filed their own joint proposed recommended order, limited to a discussion of evidence of those parties' ownership of land across the Broward River from the proposed site. SJRWMD limited its proposed recommended order to questions regarding consumptive uses of water. In light of such broad agreement among the parties, an appendix addressing proposed findings of fact by number would be superfluous.

APPEARANCES

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For City of Jacksonville and Jacksonville Electric Authority:	Richard L. Maguire, Esquire Towncentre, Suite 715 421 West Church Street Jacksonville, Florida 32202
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For himself, Charles W. Bostwick and Barnett Banks Trust Company:	William C. Bostwick, Esquire 1550-2 Hendricks Avenue Jacksonville, Florida 32201

STATEMENT OF THE ISSUES

Whether the Governor and Cabinet sitting as the Siting Board should approve (on appropriate conditions) or deny petitioners' application for a certificate authorizing construction and operation of the proposed Cedar Bay Cogeneration Project, an electrical power plant?

PRELIMINARY STATEMENT

On November 14, 1988, petitioners filed an application for certification of the site proposed for the Cedar Bay Cogeneration Project. Although DER deemed the application complete as filed, petitioners subsequently amended the site certification application five times: on February 10, 1989, July 7, 1989, October 13, 1989, December 13, 1989, December 21, 1989, (AES Composite Exhibit 6) and on January 4, 1990, when the Seminole Kraft Corporation Recovery Boiler and associated facilities were eliminated from the site certification application (AES Exhibit 4; T.116), because DER had already permitted these facilities independently, in parallel proceedings. (T.116)

After public hearings held on April 24 and 25, 1989, the Public Service Commission (PSC) entered its order granting determination of need, on June 30, 1989, concluding that a need exists for the proposed Cedar Bay Cogeneration project. (AES Exhibit No. 7, P.5) The order stated:

On November 10, 1988, AES Cedar Bay, Inc. (AES) and Seminole Kraft Corporation (Seminole Kraft) filed a need determination

application with the Department of Environmental Regulation (DER) and a petition for determination of need with this Commission pursuant to the provisions of the Florida Electrical Power Plant Siting Act (Siting Act), Sections 403.501-517, Florida Statutes.

In its petition, AES has requested that it be allowed to build a 225 MW circulating fluidized bed coal qualifying facility (QF) located at an existing industrial site adjacent to and on the property of the Seminole Kraft paper mill in Jacksonville, Florida. All of the electricity produced by this QF will be sold to Florida Power and Light Company (FPL) under the terms of a negotiated agreement. On December 13, 1988, this agreement was submitted to the Commission for approval in Docket No. 881570-EQ.

In evaluating a petition for determination of need, we are bound by the statutory requirements of Sections 403.507(1)(b) and Section 403.519, Florida Statutes, as well as our rules implementing those sections, Rules 25-22.080-081, Florida Administrative Code. Section 403.519 was passed in 1980 as part of the Florida Energy Efficiency and Conservation Act (FEECA), Sections 366.80-85, Florida Statutes, and was intended to remedy several problems which had arisen in the implementation of the Siting Act subsequent to its initial passage in 1973.

First, the section was intended to allow need determinations to be initiated at the Commission prior to the filing of a formal application with DER. Second, it codified court rulings that the "sole forum" for the determination of need was the Commission. Third, it lists specific items which "shall" be considered by the Commission in deciding the question of power plant need: "need for electric system reliability and integrity", "need for adequate electricity at a reasonable cost", "whether the proposed plant is the most cost-effective alternative available", "conservation measures . . . which might mitigate the need for the proposed plant" and "other matters within its jurisdiction which it deems relevant."

This language was intended to "flesh-out" the general language of Section 403.507(1)(b) which states, in part.

The Public Service Commission shall prepare a report as to the present and future need for the electrical generating capacity to be supplied by the proposed electrical power plant. The report may include the comments of the commission with respect to any matters within its jurisdiction.

Reliability and integrity

The load flow studies performed by FPL for this project indicate that the 225 MW of generation produced by AES when interconnected at Jacksonville Electric Authority's Eastport substation in 1993 can be integrated into the statewide transmission system. The line losses associated with the transmission of this power to FPL's load centers in south Florida will be approximately 14.5 MW or 6.4 percent of the output of the project at summer peak. This compares with line losses of approximately 47.2 MW or 7.6 percent of the total output of one of the St. John River Power Park units. In addition, the negotiated agreement between FPL and AES provides a remedy should AES's southward transmission flows, or FPL's purchase of less expensive electricity. Based on these facts, we find that FPL's ratepayers are adequately protected from any potential adverse effects on system integrity and reliability resulting from purchases from AES.

Adequate electricity at a reasonable cost

Over the term of the negotiated agreement between FPL and AES, the net present value of the stream of revenues associated with the agreement is less than that of the standard offer contract based on the statewide avoided unit, a 1995 coal unit and less than the net present value of the stream of revenues associated with the units identified in FPL's generation expansion plan as its own avoided units, 1994 combined cycle units.

AES has negotiated a long-term contract for coal supply, coal transportation and coal waste disposal with Costain. Additionally, bark from the Kraft mill will be available to supply a supplemental source of fuel approximately 5 percent of the time. Further, there are plentiful United States and international reserves of limestone which are acceptable for sulfur dioxide capture. AES intends to enter into a long-term contract for its purchase and has no reason to believe that such contract will not be easily obtained at a reasonable price. Thus we find that this project will provide adequate electricity to FPL and peninsular Florida at a reasonable cost.

Cost-effective alternative

The circulating fluidized bed boilers are the first to be constructed in Florida for the production of electricity. This project is a QF pursuant to our rules and AES has negotiated a contract at less than statewide avoided cost for the sale of firm

capacity and energy to FPL which falls within the current subscription limit of 500 MW. That being the case, this Commission has already found the proposed QF to be the most cost-effective alternative available.

Conservation

In previous QF need determination cases, we have concluded that "cogeneration is a conservation measure." In re: Petition of Hillsborough County for determination of need for a solid waste-fired cogeneration power plant, 83 F.P.S.C. 10:104, 105 (1983); In re: Petition of Pinellas County for determination of need for a solid waste-fired cogeneration power plant, 83 F.P.S.C. 10:106, 107 (1983); In re: Petition by Broward County for determination of need for a solid waste-fired electrical power plant, 85 F.P.S.C. 5:67, 68 (1985); In re: Petition by Broward County for determination of need for a solid waste-fired electrical power plant, 86 F.P.S.C. 2:287, 288 (1986). We have rethought this position. Traditionally, conservation in the electric industry has been thought of in two ways: an increase in fuel efficiency and a reduction in demand. The first, increased fuel efficiency, is a net reduction in the amount of fuel used to provide the same amount of electricity. The second, a reduction in electric demand, often peak-hour demand, results in the deferral of additional plant construction. The legislative intent of FEECA 366.80-85, Florida Statutes, to reduce "the growth rates of electric consumption and weather-sensitive peak demand"; to increase "the overall efficiency and cost-effectiveness of electricity and natural gas production and use"; and to conserve "expensive resources, particularly petroleum fuels" reflects this understanding of conservation. Section 366.81, Florida Statutes.

However, as the testimony by Witness Bakke indicates, there is a recognition in the industry that cogeneration does not "conserve" fuel in the traditional sense, it merely utilizes fuel to "deliver a service at the least cost." In some instances the fuel efficiency of a cogeneration unit will be the factor that makes a cogeneration project a cost-effective means of producing power, but that is not necessarily the case. The price of the electricity produced by a cogeneration unit could be lower than of comparable noncogeneration units simply because the sales price of the steam produced by the QF and sold to the steam host is high and produces a great deal of profit. That being the case, conservation and other demand-side alternatives as envisioned by FEECA, are not germaine to qualifying facility need determinations.

Associated facilities

Approximately 1/2 mile of 138 kV transmission line will be required to tie the proposed project into the electric grid at the Jacksonville Electric Authority Eastport substation.

Other jurisdictional matters

At hearing and in its brief, AES argued that the Commission should properly consider the following facts in reaching its decision in this need determination: displacement of oil currently used by the paper mill; significant reduction in the emission of pollutants (SO2, NOx, particulates, TRS) associated with the production of paper products at the paper mill; minimal land use impacts; creation and retention of jobs in the Jacksonville area; introduction into Florida of a "clean coal" technology without direct risk to ratepayers; and reduction of the thermal impact on the St. Johns River. Conversely, the Citizens Group stated at the hearing that the environmental impacts of the project were not all beneficial and questioned the size and type of plant which AES proposes to construct. To the extent that these matters are not discussed above, we find that they are outside the jurisdiction of this Commission as set forth in Sections 403.501-517 and 403.519, Florida Statutes, and not properly considered in this proceeding.

Petitioners' Exhibit No. 7. The PSC assumed the applicants would use the fuels they had proposed, but proof the applicants themselves put on at the certification hearing showed that Seminole Kraft might shut down its pulping operation at the mill, rendering bark unavailable as fuel. Nor was the PSC able, in evaluating cost-effectiveness before the certification hearing, to know the cost of all necessary pollution control technology.

Land Use Hearing

After the land use hearing held on petitioners' application in Jacksonville, on February 14, 1989, and subsequent entry of an agreed recommended order, the Governor and Cabinet, sitting as the Siting Board, entered an order on June 27, 1989, determining that the proposed Cedar Bay Cogeneration Project would be in compliance with the City of Jacksonville's land use plans and zoning ordinances. (AES Exhibit No. 8, Final Order, P.1)

Defective Notice Cured

While the certification hearing was scheduled for January 8, 1990, DER caused notice of the hearing to be published in the

Florida Administrative Weekly and in the Florida Times Union, at least 30 days beforehand. The newspaper notice advised readers where petitioners' application and DER's file on the application could be inspected, and both notices apprised potential parties of their "point of entry," the deadline for substantially interested persons to file, in order to participate in the proceedings.

Thereafter the hearing was continued. After the certification hearing was rescheduled for February 5, 1990, DER caused notice of the new date to be published in the Florida Administrative Weekly, and issued a press release containing the new date 30 days in advance of the hearing, but a notice intended for simultaneous publication in the Florida Times Union was not published until the day the hearing began. One result was less than the requisite five days' notice of the opportunity for public comment scheduled for the evening of February 7, 1990.

In these circumstances, a second session devoted to public comment was scheduled for February 20, 1990, DER was required to publish notice more than five days in advance, (DER Exhibit No. 1) and noncompliance with Rule 17-17.151(6), Florida Administrative Code, was deemed cured, as contemplated by Rule 17-17.161(2), Florida Administrative Code. (T.22)

Evidence Presented

At the certification hearing, AES Cedar Bay, Inc. and Seminole Kraft Corporation presented the testimony of Dennis Bakke, appearing as representative of Applied Energy Services, Inc. (T.65), Lawrence Stanley, appearing on behalf of Seminole Kraft (T.111); Jeffrey V. Swain, accepted as an expert in engineering with special expertise in project development for coal fired cogeneration power plants (T.138); Kerry Varkonda, accepted as an expert in mechanical engineering (T.169); Hamilton S. Oven, Jr., accepted as an expert in environmental engineering and review of power plant siting applications (T.207); Larry J. Almaleh, accepted as an expert in the field of geotechnical engineering, including ground waters, soils and foundations (T.283); Kenneth R. Weiss, accepted as an expert in engineering and chemical engineering, including both the requirements for water usage of power plants, and for wastewater treatment (T.358); John Cochran, accepted as an expert in mechanical engineering and air quality control (T.672); Daniel William Nelson, accepted as an expert in meteorology and air quality analysis (T.738); Brian Peterman, accepted as an expert in noise control analysis, mechanical engineering, and meteorology as it relates to noise impacts (T.824); Dr. Carol DeMort, accepted as an expert in biology,

marine biology and water quality analysis (T.958); Steve Wolf (T.1035); and Doug Duncan (T.1117).

AES Exhibits 1 (T.76); 2 (T.94); 4 (T.116); 6 (T.15); 7 (T.152); 8 (T.152); 9 (T.154); 10 (T.190); 11 (T.204); 13 (T.283); 14 (T.302); 15 (T.309); 16 (T.309); 17 (T.323); 16B (T.346); 18 (T.351); 21 (T.738); 22 (T.749); 23 (T.769); 24 (T.785); 25 (T.934); 26 (T.1047); and 27 (T.1047) were received in evidence.

DER called Hamilton S. Oven, Jr. (T.403) as its only witness. DER Exhibits Nos. 1 (T.7), and 2 (T.394), and Exhibits "A" (T.1050); "B" (T.1052); "C" (T.1052); and "D" (T.1053) were received in evidence.

The St. Johns River Water Management District presented Richard Levin, accepted as an expert in hydrology, geology, hydrogeology and groundwater modelling (T.482), and Jeffrey Craig Elledge, accepted as an expert in civil engineering and hydrology. (T.536) SJRWMD Exhibit No. 2 (T.483, 484) was received in evidence.

The City of Jacksonville and Jacksonville Electric Authority presented the testimony of Dr. Arlyn Q. White, accepted as an expert in biology, marine biology and water analysis (T.1062), William K. Martin, accepted as an expert in hydrogeology and groundwater modelling (T.1160), and Thomas H. O'Donnell, accepted as an expert in hydrogeology and groundwater contamination. (T.1175) City of Jacksonville and Jacksonville Electric Authority Exhibit Nos. 2 (T.1165) were received in evidence.

FINDINGS OF FACT

1. Founded in 1981 to produce electricity and steam, Applied Energy Services, Inc., has borrowed 1.2 billion dollars to build five major cogeneration plants in the United States. (T.66; AES Exhibit 6, P.1-21, 1-23) Cogeneration entails a secondary use of at least five percent of steam used to generate electricity. Reuse of steam makes for more efficient use of fuel. (T.67) Co-applicant AES Cedar Bay, Inc. (AES) is a wholly owned subsidiary of Applied Energy Services, Inc. (T.1102)

2. The other co-applicant, Seminole Kraft Corporation (Seminole Kraft), owns the antiquated paper mill on whose grounds the electrical generating plant is to be built. (T.112) Built in 1951 by St. Regis Corporation five or six miles north of Jacksonville's City Hall, the paper mill attained its present size

in 1957. (T.112) The Cedar Bay cogeneration project is to occupy approximately 35 acres on the Seminole Kraft paper mill site.

3. For economic and environmental reasons, the mill had been shut down for a year, when Seminole Kraft purchased it in 1986, and began recommissioning it, at a cost of 25 million dollars. (T.112) Even though it produces kraft paper at less cost elsewhere, Stone Container Corporation, owner of 60 percent of Seminole Kraft's common stock, has a ten-year agreement to buy product from the mill. (T.1102, 1128, 1129)

4. Seminole Kraft has considered shutting down its wood pulping operation and making paper by recycling corrugated containers, but has made no commitment to do so. (T.117, 118, 1123, 1126) Such a conversion would make Seminole Kraft's paper mill economically more viable, greatly reduce odor and other air pollution associated with pulping at the mill, and significantly reduce wastewater volume. (T.118, 119) But making paper from corrugated containers would still require steam for drying. (T.120)

5. SJRWMD, the water management district with jurisdiction over consumptive uses in the area, contends that petitioners should not be permitted to use groundwater for cooling purposes for more than seven years, at least without demonstrating a need for an extension, at a later time. The City of Jacksonville and Jacksonville Electric Authority originally opposed certification, but now recommend that certification be granted on certain conditions to which the petitioners have agreed.

6. On these same conditions, the Department of Community Affairs, the state planning agency, concurs in the view that certification should be granted. A nominal intervenor only, the PSC has had no involvement in the case since entry of its order granting determination of need. The private intervenors, all land owners in the vicinity, have entered into stipulations with petitioners, and do not oppose certification.

Coal-fired Plant

7. The plan is to burn two 90-car train loads of soft coal a week to produce steam to generate electricity for use downstate, while reusing part of the steam for manufacturing paper, some of which may be used even further away. With some exceptions, adverse environmental effects will be more localized. Certain gaseous products of combustion may eventually become a component of much of the earth's atmosphere. The coal is to be mined in

West Virginia. But other air pollutants will precipitate nearby, and (treated) wastewater will be dumped in the St. Johns River for the life of the plant.

8. In addition to coal, the facility may burn a small amount of wood waste (or rejected recycling material) from the Seminole Kraft paper mill. (T.141, 170) The coal for which the applicants have contracted has by no means the lowest sulfur content commercially available, but a witness testified that it could be considered a low sulfur coal. (T.143)

9. Natural gas is far and away the cleanest fossil fuel. But cold weather can render supplies unreliable. For much of the year, natural gas, which is produced domestically, costs less than fuel oil, which may be imported. Not until hearing did the applicants seek leave to amend to use natural gas, and then only in auxiliary fuel burners. Although natural gas mains near the site make delivery feasible, designers of the plant did not originally take this into account.

10. The applicants adduced testimony that uncertainty about price and availability militate against choosing natural gas for a "base load" generating facility. But it is a simple matter to use fuel oil as a stop-gap, if necessary. At least one electrical generating plant in Florida already uses natural gas as its principal fuel. The evidence was not entirely clear why a 225-megawatt plant hundreds of miles from Florida Power and Light Company's vast service area should be deemed "base load." Or why natural gas's wintertime drawbacks should determine the fuel for this plant, given that Florida Power and Light Company experiences its peak loads in the summertime.

11. Construction of the new cogeneration facility will allow the existing bark boilers and oil-fired power boilers at the mill to be shut down. (T.683; AES Exhibit No. 6, SCA P.3-15, 5-34) Seminole Kraft is under orders to close down the most egregious of its several air pollution sources, in any event. At present, acid rain (whatever its cause) peels paint off cars in the vicinity, and the incidence of lung cancer is higher in Duval County than in any other county in Florida.

12. Construction plans call for digging a pit and lining it for coal storage. This would require "dewatering", i. e., pumping groundwater (presently contaminated) into the river until the pit could be lined, in order to prevent flooding the excavation. See paragraphs 21-34.

13. At least initially, the plan is to use millions of gallons of groundwater a day for cooling. Cooling water pumped through the power plant condenser will flow from the condenser to the top of and down through the cooling tower. The cooling tower can be smaller than a natural draft tower, because fans will create a steady flow of air. (AES Exhibit No. 6, SCA P.8-3) Part of the water evaporates and part flows to the cooling tower base to be used again for cooling. (T.362) In this open recirculating cooling system (T.363) constant evaporation of water in the cooling tower requires introduction of additional water or "make-up." (T.364)

14. Because the system is recirculating, dissolved solids tend to build up in the water, so that a portion of the recirculating water must be discharged as "blow-down." (T.365) Concentrations will increase about 4.5 times between "blow-downs." (AES Exhibit No. 6, SCA P.3-33) Average blow-down will be approximately 900,000 gallons per day. (T.366) Approximately 4 million gallons of water per day from the Floridan Aquifer are to be used for cooling tower make-up, when operations begin. (T.360) See paragraphs 61-75.

15. Three circulating fluidized bed boilers (CFBs) will supply steam to a single steam turbine that will drive the electrical generator. (AES Exhibit No. 6, SCA P.3-1) Thermodynamically very efficient, this technology is encouraged by both federal and state law. (T.141) Three CFBs of the size planned are more reliable than a single larger unit. (T.178, 179)

16. The CFB design makes for recirculation and reburning of ash, which allows the boilers to operate at a lower temperature, producing less nitrogen oxide. (T.172) Pulverized limestone will be injected into the boilers to react with sulfur dioxide produced during combustion. (T.171, 172, 1175) A cyclone at the boiler flue gas exit is designed to knock heavy ash particles down and reinject them into the boiler. (T.172, 175, 176) Flue gas from each boiler will then enter a "baghouse" with fabric filters which remove over 99 percent of particulate material. (T.174-176) A separate baghouse will be provided for each boiler (AES Exhibit No. 6, SCA P.3-1) but flue gas leaving the baghouses will be routed up a single stack. (T.196) See paragraph 35.

17. This stack will be approximately 425 feet high, to prevent downwash and promote good dispersion of air emissions. Stacks at the existing mill are relatively low (approximately 120 feet high), while nearby buildings are 100 feet high. The result is downwash of the plume from the existing stacks, which

increases the concentration of air pollutants at ground level. (T.180) See paragraphs 37-46.

18. Dust from stored coal should not be a problem off site. Coal is delivered to the site by rail, (T.182) and unloaded in a covered structure. The coal will drop into a pit below ground where it is taken by conveyor to the active coal pile. (T.183) There will be storage space for about 30 days' supply of coal. The coal is later reclaimed on another conveyor and taken to a fully enclosed crushing structure and then to the boilers for injection as fuel. (T.184) See paragraphs 36 and 60.

19. Bottom ash from the boiler and fly ash from the fabric filters, conveyed pneumatically to storage hoppers and pelletized, (T.185, 186) will be the only solid waste the boilers produce. AES Cedar Bay has contracted to ship the pelletized ash back to West Virginia for disposal, and will do so unless it can be used locally. (T.198)

20. The facility will utilize the existing Seminole Kraft wastewater outfall. After collecting in a pond, runoff from the coal, limestone, and ash storage areas will be routed through Seminole Kraft's existing wastewater treatment system, which includes a clarifier. (T.191, 192) (T.192) A separate pond will be created for retention and treatment of stormwater runoff from the yard area. (T.187) These two collection ponds (T.187, 1919) will replace Seminole Kraft's lime mud ponds. See paragraphs 50-58.

Water Quality; Effects from Dewatering

21. The proposed site (T.844, 845) lies on the bank of the Broward River shortly before its confluence with the St. Johns. The water table is approximately five feet below existing grade. Beneath the water table zone, which extends to a depth of approximately 25 feet, are a more finely grained semi-confining bed and, underneath that, a limestone unit extending to a depth of approximately 70 feet. Approximately 300 feet thick, the Hawthorn formation underlies the surficial aquifer, separating it from the Floridan.

22. Drawing down the water table is a normal construction technique in Florida, (T.847), although there are other techniques, such as slurry wall construction. (T.848, 873) Dewatering for construction of the coal car unloading facility, the circulating water pump house and piping to connect the pump

house to the main power block (T.845-847) will last no longer than two years. (DER Exhibit No. A, Proposed Conditions, Section III, A 14)

23. In order to determine how much water would have to be pumped, the applicants performed certain permeability tests (T.848-850) across Eastport Road from the site, and grain size tests on samples taken on site. (T.873) Inferences from grain size analysis regarding permeability vary in accuracy, but the applicants assumed the highest conductivity any of the grain size tests suggested, .0076 centimeters per second. (T.849, 850)

24. The soil's permeability determines how fast water would fill the excavation, unless removed; and, therefore, if water is continuously removed, the extent to which groundwater nearby would be drawn down. (T.850) This is of particular importance because of groundwater contamination, demonstrated and suspected, under the site and nearby. (T.850-851) A condition of certification jointly drafted by AES Cedar Bay and the City of Jacksonville provides a protocol for monitoring, and, if necessary, treating the water to remove these materials. AES Cedar Bay has agreed to be bound by this condition. (T.884-887, 1137-1144, 1242)

25. Three decommissioned underground storage tanks are located in the area, two diesel fuel tanks and one used for a heavier oil. Apparent leaks in the diesel tanks have been reported to the Department of Environmental Regulation pursuant to the Early Detection and Incentive (EDI) program under Chapter 376, F.S. (T.864) Near both diesel tanks, free product has been found floating on top of the ground water. No free product associated with the heavy fuel oil tank has been discovered. Heavy fuel oil is so viscous that it requires heating even to pump it out of a tank. (T.863)

26. AES Cedar Bay has agreed to clean up the free product near the closer diesel tank, looking to DER's EDI program for reimbursement. After removing floating oil, the applicants will remove dissolved hydrocarbons from groundwater in the area (T.865-866) by pumping and routing it to an "air stripper," where air blown through the water would "strip off" hydrocarbons. AES Cedar Bay proposes to follow DER rules regarding the evaluation and clean up of petroleum contamination near the closer diesel storage tank, and can accomplish the clean up without discharging petroleum to surface waters. (T.866)

27. The applicants do not propose to remedy groundwater pollution from the more distant diesel fuel tank because it is

unclear whether groundwater contaminated by petroleum from that tank would reach the dewatering pumps. Instead, they propose to place wells down gradient from the second tank to determine the extent of contamination and to monitor groundwater levels. Only if dewatering activities result in a draw down of six inches below ambient levels, does AES Cedar Bay propose to perform the same type of clean up as it proposes for groundwater contaminated by the nearer tank. Equipment will be present on site to perform this work if necessary. (T.866-868) Other potential areas of contamination which were identified (T.1176-1184) will be monitored and appropriate remedial action will be taken if necessary. (DER Exhibit No. A, Proposed Conditions, Section XXVIII)

28. AES Cedar Bay will treat "dewatering effluent" before mixing it with the once-through Broward River water. (T.910) Primary parameters of concern include aluminum, iron, lead, phenols, and turbidity. (T.902) Copper also contaminates groundwater in the vicinity of the proposed excavation. AES has agreed to remove enough copper to reduce the concentration to or below .046 mg/l, before discharging into the once through cooling system. (T.932)

29. AES Cedar Bay proposes to use the best available treatment technology for removing copper, (T.917, 1220) which would also constitute the best practical treatment under state and federal requirements. (T.1220, 1221) The strategy is to "minimize [copper's] solubility, and absorb the copper upon the solid material . . . recirculating in the system." (T.1225) AES Cedar Bay will perform bench tests to determine optimum feed rates for treatment chemicals. (T.910, 917-918)

30. "The theoretical solubility for copper . . . [can be dropped to] .001" (T.1227) milligrams per liter, by changing the pH of the solution. Although this theoretical limit will not be reached, and the applicants do not intend to try to attain Class III water quality standards, "given enough money, pretty much anything is possible." (T.1221) The engineer responsible for designing the system is "hopeful to get better removal" (T. 1224) than what will be needed to reach the promised .046 milligrams per liter. During development of the treatment system, if another, more efficacious method becomes available at or below the approximate cost of the system AES has proposed, AES is to employ it. (T.1232)

31. Treatment for copper will remove other heavy metals in the effluent as well. (T.918) After treatment, AES Cedar Bay

will discharge water from the dewatering process to the St. Johns River. Seminole Kraft's once-through cooling water pipe deposits wastewater directly in the St. Johns shipping channel, where the current is more rapid than in the Broward River, and than closer to shore. (T.905-906, 910) The bottom of the Broward River is mostly organic silt, whereas the St. Johns River ship channel is relatively scoured with hard bottom material (T.969) and more tidal movement. (T.970) This reduces the possibility that metals may become tied up in organic bottom sediment, (T.975) and also provides a more direct route to the ocean. (T.987)

32. After treatment and dilution in the existing Seminole Kraft cooling outfall, copper concentrations will still exceed Class III standards, but will be below natural background conditions in the St. Johns River at the point of discharge, and will be below applicable acute toxicity concentrations. (T.932) Concentrations of other metals will be within Class III standards. (T.918-919) DER has recommended a two year variance for copper. (T.414-418) Class III standards for phenols will be met subsequent to dilution in a mixing zone in the St. Johns River (T.918, 919)

33. Heavy metals discharged in dewatering the AES site will remain, for the most part, in the estuary. (T.1064) While metal concentrations in the discharge will not exceed acute toxicity values (T.1066), metals such as copper and lead, in the concentrations anticipated, have detrimental, long-term effects on aquatic biota. (T.1067-1069) The discharge of the AES dewatering effluent will do nothing to improve the water quality of the St. Johns River, and will contribute to an already serious problem. (T.1073-1074)

34. The SJRWMD reviewed the applicant's proposed dewatering consumptive use (T.504) and found the amount of water proposed for withdrawal reasonable in the circumstances. (T.505) The SJRWMD also found that there would be no adverse impacts to existing legal users as a result of dewatering. (T.506)

Air Pollution

35. Fabric filters are to control particulate emissions. (T.678) Each filter will be made up of a number of compartments, each compartment having between 200 and 400 bags made of fiberglass material designed to filter out particulates. (T.678) As the bags fill with ash, compartments will be taken off line for cleaning, by reversing the air flow to dislodge dust, and collecting it in hoppers. (T.679) The best available control

technology (BACT) for particulate removal, (T.683) this technology provides the greatest control of any particulate removal device. (T.682) New source performance standards for emission of particulates for this type of unit are .03 pounds per million British thermal units (MBTU). (T.682) The AES Cedar Bay project is well below this standards at .02 lbs. per MBTU. (T.683)

36. Fugitive dust from the active coal pile will be suppressed with moisture. Fugitive dust from the coal crusher will be controlled by enclosure, and dust collection in a fabric filter baghouse. (AES Exhibit No. 6, SCA P.3-19) These controls will contribute to an over all net reduction in particulates compared to current levels emanating from the mill. (AES Exhibit No. 6, SCA P.3-24)

37. Applied Energy Services, Inc. has committed to planting 52 million trees in Guatemala (sic) to offset potential global warming effects of its Thames River Plant in New London, Connecticut. (T.82, 83) AES has also set aside money in the Cedar Bay cogeneration project budget to plant trees in Guatemala, in order to mitigate CO2 effects. For obvious reasons there are no regulations requiring such a program.

38. Emissions of sulphur dioxide (SO2) are to be controlled by limiting sulphur content in the coal to an average of approximately 1.7% and by injecting limestone into the boilers during firing. (T.684) The proposed emission rate of 0.31 pounds per MBTU is within the new source performance standards. (AES Exhibit No. 6, SCA P.3-19) The SO2 emissions from the proposed facility will be lower than what the bark boilers and power boilers at the Seminole Kraft plant now emit. (AES Exhibit No. 22) No less effective than scrubbers, limestone injection represents best available control technology for removal of SO2. (T.684)

39. Maintaining lower combustion temperatures within the CFBs and staged combustion should minimize NOx emissions. The proposed facility's emissions, at .29 pounds per MBTU, are less than half new source performance limits of .6 pounds per MBTU. (T.685) This control technology represents best available control technology for removal of NOx. (T.691)

40. Control of emissions of volatile organic compounds is to be accomplished by preventing excess air's reaching the boilers. Emissions of carbon monoxide are also to be controlled by regulating combustion. (T.688) Combustion controls are currently

the only method by which carbon monoxide can be limited. (T.689) The level in the proposed certification conditions of .19 pounds per MBTU, is the lowest attainable by any known technology. (T.689) This represents best available control technology for control of emissions of carbon monoxide. (T.689)

41. The CFBs are equipped with digital controls and emissions monitors that provide a continuous record of emissions of SO2, NOx, and carbon monoxide. (T.692) Test points will be downstream from the emissions control devices but upstream from the stack. Continuous monitors will be tied in with systems controls. The SO2 monitor will directly control how much limestone is injected into the boiler. An opacity monitor will make it possible to evaluate the efficiency of the fabric filters. (T.693) Because each boiler will have a spare filter compartment, (T.693) a problem compartment can be taken off line, without having to shut down the plant or suffer an emissions exceedance. (T.694)

42. The smokestack can also be expected to emit certain non-regulated, non-criteria pollutants. These include beryllium, chlorine, and sulfuric acid mist. But of these pollutants can be expected, instead of entering the atmosphere, to condense onto fly ash and be removed with fabric filters, (T.696) which represent best available control technology for control of these pollutants as well. (T.697).

43. An analysis was also performed to determine effects the proposed facility would have on ambient air quality (T.739) with specific reference to whether it would emit air pollutants above significance criteria established by the EPA. (T.750) Under EPA regulations to which DER also adheres, the applicants benefit from Seminole Kraft's abysmal history of air pollution in the sense that proposed emissions are evaluated only to the extent they alter the status quo. Emission rates for carbon monoxide, nitrogen oxide, lead, beryllium, mercury, fluorides and sulfuric acid mist will increase. Projected increases in emission rates for these pollutants are above EPA significant emission rates. AES Exhibit No. 22.

44. The country is divided into areas with different classifications, for purposes of the prevention of significant deterioration program. The Okefenokee Swamp National Wildlife Refuge or Okefenokee Wilderness Area, only 35 miles from the proposed facility at the nearest point, is the closest Class I area to the proposed facility. (T.752) The Jacksonville area, with the largest concentration of people in north Florida, is in a

Class II area, in which greater degradation of air quality is allowed. (T.752, 753)

45. Modeling results indicated that replacing bark boilers and power boilers at Seminole Kraft's paper mill with the proposed cogeneration facility will result in significant reductions in concentrations of certain pollutants at ground level, near the new, higher smokestack. (AES Exhibit No. 6, P.5-52; AES Exhibit No. 23, diagrams and charts) Predicted concentrations of carbon monoxide, nitrogen oxide and lead do not exceed ambient air quality standards. Net improvement in some parameters was also noted at the Okefenokee Swamp Class I area boundary. (AES Exhibit No. 23, diagrams and charts) Modeling for Cedar Bay Road, St. Johns River Power Park, Arlington, and Jacksonville City Hall suggested reductions of approximately 90 percent in sulfur dioxide reaching those sites. (AES Exhibit No. 24; T.783)

46. If constructed and operated as planned, the facility would comply with state ambient air quality standards, and with the prevention of significant deterioration rules administered by the Department of Environmental Regulation and the Environmental Protection Agency. (T.785, 786, 788)

Noise

47. During construction, pile-driving, earth moving equipment, and, in the latter stages, steam blowing will cause loud noises. (T.826) Pile driving will only take place during the day, and mobile equipment would be muffled with standard silencing techniques. (T.836-837) A public awareness campaign prior to commencement will warn of noise from steam blowing. (DER Exhibit No. A, Proposed Conditions Section XXIV)

48. The Jacksonville Noise Ordinance specifies maximum allowable noise from operations (but not construction) (T.836) by octave band. (T.827) More noise is allowed in some areas than in others. The proposed facility is in a Class D (industrial) area and the surrounding areas are Class C (commercial/business) and Class B (residential). The ordinance proscribes different noise levels for night than for day. (T.828)

49. Using accepted procedures for estimating noise emissions and evaluating impacts on receptors in the community, the site layout proposed will meet the requirements of Jacksonville's noise ordinance. (AES Exhibit No. 6, SCA P.5-62; AES Exhibit No. 12 Attachments; T.829-834) Fans and material handling equipment will be enclosed to minimize noise emissions. (T.926, 935)

Water Quality: Effects From Operations

50. Operating the plant will require dealing with seven categories of wastewater (T.941): stormwater runoff from developed areas not devoted to storage, cooling tower "blow down," plant drain system effluent, regeneration waste water from the demineralizer, condensate polisher waste water, waste water from cleaning metal, and runoff from the area where coal, limestone and pelletized ash are to be stockpiled.

51. A retention pond will collect rain water running off the developed area of the plant not devoted to storage. Solids the runoff picks up will settle out there, under ordinary conditions, and be monitored in accordance with EPA and DER requirements prior to discharge, ultimately to the St. Johns River. (T.941) But a 24-hour 25 year return storm will cause the retention pond to overflow into the Broward River.

52. Waste water from the boilers will be used in the cooling tower system. As required by DER and EPA, cooling tower blow down will be monitored prior to being discharged to the St. Johns River, (T.942) via the existing Seminole Kraft outfall. (AES Exhibit No. 6, SCA pp. 5-10)

53. Plant drains will be routed to an oil-water separator for removal of oil picked up in the plant. After separation and monitoring, waste water will be sent to Seminole Kraft's clarifier and aeration pond system. (T.942-3) The demineralizer that purifies water for use as make up in the boilers, yields acidic waste water as a byproduct. Waste water from the demineralizer will be neutralized and monitored before it, too, flows to Seminole Kraft's clarifier. Waste water from the condensate polisher system will also, after monitoring, be directed to Seminole Kraft's clarifier and the rest of the existing waste water system.

54. Water fouled with cleaning solutions used to prepare the boilers before operation, as well as to clean them every three to five years thereafter, will be directed first to a separate treatment system designed to assure that the effluent does not exceed EPA and DER waste water effluent limits for iron of one part per million. Only then will the waste water go to the Seminole Kraft facility's clarifier. (T.944, 945) The acidic cleaning solution itself will be disposed of off site by an approved contractor. (T.951)

55. Runoff from the coal storage area, the limestone storage area and the ash pelletizing area will be routed to a retention pond for initial storage, and to settle suspended materials. Most of the time, runoff accumulated in the ponds then be monitored in accordance with EPA and DER requirements and directed to the Seminole Kraft clarifier and waste treatment system. (T.945-946) But, in the event of a 24-hour ten year return rain fall, the settling ponds would overflow into the Broward River. (T.946)

56. During operation under favorable meteorological conditions, discharges from the plant will meet all water quality standards applicable to the St. Johns River, except the standard for iron. The overall water treatment system proposed by AES Cedar Bay will meet the New Source Performance Standards for fossil fuel steam generators promulgated by the EPA and adopted by the DER. (T.946-947)

57. DER has recommended a variance from the iron standard, for the life of the facility. (T.414-418) Evaporation in the cooling tower will increase concentrations of iron present in the ground water to be used, at least initially, as a coolant. Because the background level of iron in the St. Johns River is above the Class III standard of .3 milligrams per liter (T.947-948), no mixing zone, however large, would allow dilution to levels below the Class III criteria. The level of iron proposed to be discharged is essentially equivalent to what exists currently in the St. Johns River. (T.1230) Species still living in the St. Johns River have adapted to the background iron levels. (T.415, 977)

58. Using cooling towers, instead of the once-through cooling system currently used by Seminole Kraft, will reduce the thermal load to the St. Johns River significantly. (T.949, 950)

Coal Trains

59. As a 90-car coal train approached the proposed facility, first one, then a second, then a third road in the San Mateo area would be blocked, each for approximately eight minutes. All three will be blocked simultaneously for approximately four minutes. (T.1039, 1040) Even then, roads from the south would still afford access to the San Mateo development. (T.1040)

60. Intersections blocked by AES Cedar Bay coal trains will be blocked for less than one-half of one percent of the time. (T.1042-1043) Since all trains will have three engines, prolonged blockage on account of engine failure should occur rarely, if

ever. (T.1045) A siding at the facility will permit the entire train to stand on site without blocking roads. (T.1041) When the train is stopped, only ambient winds will disperse coal dust.

Consumptive Use of Groundwater

61. The applicants seek authorization to withdraw an average of 5.4 million gallons of groundwater a day from the Floridan Aquifer, not to exceed seven million gallons on any given day, using Seminole Kraft's existing well field. (T.300; AES Exhibit No. 6, SCA Figure 3.5-1) Seminole Kraft's six existing wells, as deep as 1,290 feet, draw from both the upper and middle water bearing zones of the Floridan Aquifer, (T.292) zones which are separated by a semi-confining unit. Seminole Kraft is already permitted to withdraw a daily maximum of 25 million gallons a day (mgd), and actually uses a daily average of 19.5 mgd.

62. The project will use water pumped from the Floridan aquifer as make-up for the plant cooling system, as make-up for the steam or power generation system, as service water, and for potable purposes. (T.359) The proposed average withdrawal of 5.44 mgd will suffice to meet the cooling system requirements (4 mgd) and other needs on an average day. (T.361) Because high evaporation rates or other transient conditions may require additional water, (T.360, 361) the applicants propose a maximum of 7 million gallons on any one day. (T.362) The plant has been designed to keep water requirements down. The cooling system recycles water and boiler blow-down is used as make-up for the cooling tower. (T.368)

63. Water used for power generation must be of a very high quality or problems develop in the power production equipment; water produced by the Floridan aquifer is appropriate for this use. But water of lower quality, including reclaimed water, can be used as cooling tower make-up, if available. Using reclaimed water, rather than ground water, for cooling conserves limited water resources. (T.259; 491). The SJRWMD deems using ground water for power production and potable purposes reasonable (T.485, 486) and the quantities requested necessary for economic and efficient utilization. (T.486) Since reclaimed water may not be available initially, the use of ground water for cooling tower makeup is reasonable for an interim period. (T.493).

64. As an aid to predicting the effects of the proposed withdrawals, AES Cedar Bay submitted results of a groundwater investigation to the St. Johns River Water Management District. (T.294) The report included data from pump testing and flow meter testing on the Seminole Kraft wells, geophysical testing to

determine thicknesses of various geological formations, samples derived from wells in the surrounding area, data obtained from the U.S. Geological Survey, (T.295) and data obtained from the St. Johns River Water Management District and the City of Jacksonville Bio-Environmental Services Division. (T.296)

65. Two computer models predicted effects on groundwater: a mod-flow or aquifer model, and an MOC or solute transport model. (T.299) After calibration by reference to existing conditions, each model was run three times: first, to predict the effects of the presently permitted Seminole Kraft average withdrawals; second, to predict the combined effects of the average Seminole Kraft withdrawals and of the average withdrawals the applicants propose; third to predict the combined effects of maximum permitted and of maximum proposed withdrawals. (T.299)

66. The aquifer modeling predicted no change in piezometric levels attributable to the presently permitted Seminole Kraft withdrawals, even if continued over a period of 40 years. (T.314) But, when the model assumed average withdrawals of 25 mgd (Seminole Kraft's historical average plus the average the applicants propose), (T.315) the model predicted a drop in the piezometric surface, a "drawdown" in the area. No wells were identified which would lose artesian pressure as a result of the drawdown, but artesian pressure would decrease near the site. (T.319) Any pump close to the existing piezometric surface might have to be lowered, (T.316, 317) but no well in the vicinity would be rendered unusable.

67. The SJRWMD has declared a Phase I Water Shortage in the Jacksonville area because of the drought in the northern part of the District. Rainfall is below normal, and some wells have reached all-time lows. (T.509-510) The SJRWMD has asked residents to conserve water. Many who testified has done so, by adopting such measures as putting bricks in toilet tanks, and turning the water off while brushing their teeth. But the SJRWMD has not declared a moratorium on new consumptive uses of groundwater. (T.573) The applicants have agreed to "mitigate" any problems created by the withdrawals. (T.349)

68. The solute transport model predicted effects withdrawals would have on chloride or saltwater intrusion over a 40-year period. (T.321, 322) Near the site, concentrations of chloride in groundwater in the Floridan's middle and upper water bearing zones currently fall in the range of 35 to 40 milligrams per liter (mg/l), well below the 250 mg/l limit for potable drinking water. (T.332) Modeling performed for Blount Island predicted that the

maximum, combined withdrawals would increase chloride concentrations in ground water there a maximum of about five mg/l above existing levels of 167 mg/l. No change in chloride levels was indicated by modeling for Fort George Island. (T.341)

69. Modeling indicated that existing Seminole Kraft withdrawals would eventually raise chloride concentrations under the site by approximately five or six mg/l. (T.335) Modeling for average combined withdrawals indicated an average increase in chlorides of six mg/l and a maximum increase of eight to ten mg/l. (T.336, 337) Modeling for the maximum combined withdrawals predicted the same increase in average chloride concentrations, and an increase in maximum chloride concentrations of eleven or twelve mg/l. (T.338)

Four MGD For How Many Days?

70. Although reclaimed water is not currently available on the proposed project site, it should become available in the near future. (T.492, 544, SJRWMD Ex. 2). The life of the facility is approximately 30 years. (T.590). Some source of water having a quality lower than what the Floridan aquifer's upper and middle water bearing zones yield must be utilized for cooling tower makeup within the first few years of operation, if the use is to meet the consumptive use statutory tests. (T.565-66).

71. The applicants, SJRWMD, and Jacksonville have stipulated to a condition of certification governing the proposed facilities' future reuse of reclaimed water from Jacksonville for cooling tower makeup. (Stipulated Condition XXV, infra; SJRWMD Ex. 1, Amended Condition #17; Supplemental Prehearing Stipulation, par. 7(a)); T. 380; 600-01; 621-22). The stipulated condition requires that the facility be designed with the capability of reusing treated wastewater as cooling tower make-up. The applicants have agreed to use reclaimed water in the cooling tower and elsewhere, where appropriate, if Jacksonville delivers reclaimed water to the site, provided phosphorus has been reduced to unspecified "acceptable" levels, so long as such reuse does not render blowdown or other discharges unpermittable, (T.376, 493; 670), and provided such reuse is "financially practicable."

72. The consumptive use permit that SJRWMD has granted the City of Jacksonville requires the City to reuse specified volumes of reclaimed water by a date certain. (T.492, 543-544). This permit condition reflects the state water policy of attempting to match the type of use with water of the lowest suitable quality available. (T.490-91). Under this requirement, treated effluent from Jacksonville's domestic wastewater treatment plants is viewed

as a valuable supply of water which has the potential of being put to a beneficial use. (T.491)

73. Seminole Kraft's current operations result in several million gallons of wastewater daily, but nobody has advocated the use of this water for cooling. Reclaiming wastewater from a pulping operation may not make economic sense. But, at least if Seminole Kraft closes down its pulping operation as contemplated, wastewater from its own operations is another potential source of reclaimable water.

74. The parties have stipulated to a condition of certification requiring the applicant to submit data for DER's review periodically. This review can result in a modification of conditions. (T.468) A power plant certified under the FEPPSA must comply with later adopted rules of the Department. (T.469)

75. The SJRWMD proposes a condition limiting duration of the consumptive use certification to seven years. (District's Exhibit No. 1, Amendment to conditions P-1, Condition 9) The consumptive use duration limitation has never been raised in the three previous power plant certifications which have occurred within the SJRWMD, because there was no consumptive use permitting program or rule in effect in the area where they were proposed. (T.539-40). Indeed, there is no evidence of the issue having been raised in any power plant site certification in the state. (T.474-74). DER has explicitly taken a position of neutrality on the issue of consumptive use duration in this case. (T455-56).

Site Biology and Wildlife

76. Previous disturbance of the site has left very little wildlife habitat, (AES Exhibit No. 6, SCA P. 4-6a) but gopher tortoises burrow in the vicinity of a proposed rail spur and on the site proposed for relocation of the lime mud pile. No specific information puts alligators or other endangered or threatened species on the site, except for gopher tortoises. (T.239) The plan is to relocate the tortoises in conformance with Game and Freshwater Fish Commission requirements, and in consultation with Commission staff. In that case, commensal species, such as the indigo snake and the gopher frog, will also be relocated, if possible. (T.236, 247; DER Exhibit No. 2, Section XXVII) As amended, the application does not request permission to dredge and fill the marshes adjacent to the site or any other jurisdictional wetlands. (AES Exhibit No. 6, SCA P.4-6a, 4-7)

77. So far, no endangered plant species have been identified on the site. The applicants have undertaken to perform a plant survey prior to construction in less disturbed areas of the site, and to transplant any endangered species in coordination with the appropriate agencies. (T.239, 240; DER Exhibit No. A, Proposed Conditions, Section XXVII)

78. Elimination of the Seminole Kraft once through cooling system will end fish mortality from entrainment and impingement in the cooling system. Reduction in current levels of thermal loading may also lure fewer manatees into the St. Johns River shipping channel. (T.231, 232) No increase in coal barge traffic is planned. (AES Exhibit No. 26, Manatee Report)

Archeological and Historical

79. Because no significant archeological or historical sites lie within the project area, the proposed project is consistent with the historic preservation aspects of Florida's Coastal Zone program. (AES Exhibit No. 27)

Compatibility with State Comprehensive Plan

80. As required, the Department of Community Affairs (DCA) reviewed the proposed project to determine whether it is compatible with the State Comprehensive Plan. (Prehearing Stipulation of January 9, 1990, Exhibit No. E; T.270; DCA Exhibit No. 1) The DCA's final report found the project to be compatible with the State Comprehensive Plan, conditioned on the PSC's finding that a need for the facility exists, and on condition that the SJRWMD and DER find that the proposed withdrawals not have significant adverse effect upon the Floridan Aquifer, and, finally, on condition that certification incorporate DER's proposed conditions of certification. (Prehearing Stipulation of January 9, 1990, Exhibit No. E, P.18) The DCA report was updated by letter dated February 2, 1990, stating that the first two conditions have been satisfied and that the project would be compatible with the State Comprehensive Plan if DER's conditions are incorporated into the site certification. (DCA Exhibit No. 1, P.2,3)

Socioeconomics

81. The Cedar Bay Cogeneration Plant will provide social and economic benefits to both Duval County and to the State of Florida in the form of additional employment, wages, non-wage investment and local and state taxes. (AES Exhibit No. 6, SCA P.7-1)

Construction period employment will peak at about 633 workers while operation of the facility will add 58 new jobs. (AES Exhibit No. 6, SCA P. 7-1, 7-2) An additional 380 jobs are estimated to result from the secondary economic impacts during construction of the project with an additional 46 new jobs during operation. (AES Exhibit No. 6, SCA P.7-9) Therefore construction of the facility is expected to stimulate approximately 1000 full-time positions during the peak construction phase and 104 full-time positions during the operational phase as a result of both the direct and indirect impacts of the plant. (AES Exhibit No. 6, SCA P.7-9)

DER Review

82. In order to verify or supplement the studies made by the applicants, DER conducted studies or made evaluations in the following areas: Cooling system requirements; construction and operational safeguards; proximity to transportation systems; soil and foundation conditions; impact on suitable present and projected water supplies for this and other competing uses; impact on surrounding land uses; accessibility to transmission corridors; environmental impacts; and requirements applicable under relevant, federally delegated or approved permit programs. (DER Exhibit No. 2, DER Section V-VII) Hamilton S. Oven, Jr. testified regarding the Department's conclusions in each study area. Mr. Oven has reviewed at least 23 power plant siting applications in full, which represents every plant sited under the FEPPSA since 1974. Mr. Oven was accepted as an expert in environmental engineering and in the review of power plant siting applications. (T.206, 207) He testified that the petitioner's application compares familiarly with other applications the Siting Board has granted.

CONCLUSIONS OF LAW

83. At this stage in certification proceedings on power plant siting applications like the one AES and Seminole Kraft have filed, a hearing officer of the Division of Administrative Hearings has jurisdiction. Sections 403.5065(1) and 403.508(3), Florida Statutes (1989). In accordance with the Florida Electrical Power Plant Siting Act, Chapter 403, Part 2, Florida Statutes (1989) (FEPPSA) and Chapter 17-17, Florida Administrative Code, certification proceedings, which will conclude with final action by the Siting Board, comprise the final phase of a tripartite permitting process.

84. The first phase eventuated in the Siting Board's order of June 27, 1989, determining that building a plant on the site

the applicants propose would not run afoul of the City of Jacksonville's land use plans or zoning ordinances. The second phase culminated in the Public Service Commission's order three days later, after concurrent proceedings there, concluding that the state needs additional generating capacity the project would afford. Remaining for decision is whether the proposed facility can be built in an environmentally acceptable fashion.

De Novo Hearing

85. Even after need has been determined, certification is an open question, hinging on whether the proposed plant is to be located and operated so as to cause as little environmental damage as possible. Proposals involving sites and technologies which fail to "offer a reasonable balance between the need for [additional generating capacity] and the environmental impact resulting from construction and operation of [a particular, proposed] facility," Section 403.502, Florida Statutes (1989) cannot be certified. Although "[a]s the largest stationary source of air pollution, electrical power plants cause profound environmental damage," Note, Florida Electrical Power Plant Siting Act: Perpetuating Power Industry Supremacy in the Certification Process, 35 U.Fla.L.Rev. 817 (1984), some cause more than others.

86. What has gone before notwithstanding, the certification hearing is de novo, see Couch Construction Co. v. Department of Transportation, 361 So.2d 172, 176 (Fla. 1st DCA 1978); McDonald v. Department of Banking and Finance, 346 So.2d 569, 584 (Fla. 1st DCA 1979), except as regards the Public Service Commission's determination of need. Florida Chapter of the Sierra Club v. Orlando Utilities Commission, 436 So.2d 383 (Fla. 5th DCA 1983). A finding by the Commission that additional generating capacity was unnecessary would preclude certification. Section 403.519, Florida Statutes (1989). See Florida Chapter of the Sierra Club v. Orlando Utilities Commission, 436 So.2d 383 (Fla. 5th DCA 1983); Section 403.508(3), Florida Statutes (1989).

87. The Public Service Commission has exclusive ratemaking authority, Section 403.511(4), Florida Statutes (1989), and the Commission's report to DER "may include . . . comments . . . with respect to matters within its jurisdiction." Section 403.507(1)(b), Florida Statutes (1989). But, when the Commission considers cost-effectiveness, its consideration is necessarily preliminary, since the extent and cost of control technologies are not established until certification proceedings conclude. See generally Florida Chapter of the Sierra Club v. Orlando Utilities

Commission, 436 So.2d 383, 389-391 (Fla. 5th DCA 1983) (Sharp, J., dissenting) (even PSC's need determination should be seen as presumptive only).

88. In the executive branch, the Siting Board has final say on all environmental aspects of the project. Section 403.509, Florida Statutes (1989). Among the most important decisions affecting the environmental consequences of building and operating an electrical generating plant is the choice of fuel. But the applicants contend that the Siting Board has no authority to consider this central question in certification proceedings, and must instead defer to the Public Service Commission.

89. This contention is plainly at odds with the statutory scheme. The FEPPSA contemplates explicit conditions of "certification, [restricting] modification of nonnuclear fuels." Section 403.506(2), Florida Statutes (1989). It requires, in effect, that any certification conditions pertaining to fuels be set out in writing; they must be "provided in the certification," in order to be binding. Section 403.506(2), Florida Statutes (1989). It is the Siting Board that certifies a site. The FEPPSA restricts supplemental applications to proposed plants "using the fuel type previously certified for that site." Section 403.517, Florida Statutes (1989). The FEPPSA assigns the Siting Board, not the Public Service Commission, ultimate responsibility for assuring "minimal adverse effects on human health, the environment, the ecology of the land and its wildlife, and the ecology of the state's waters and their aquatic life." Section 403.502, Florida Statutes (1989).

90. In the certification hearing, DER is merely "a party litigant" Section 120.57(1)(b)3., Florida Statutes (1987), despite its coordinating responsibilities at other stages of the process; and at hearing its recommendation in favor of certification operated only as a statement of position aligning it with the applicants. See Couch Construction Co. v. Department of Transportation, 361 So.2d 172, 176 (Fla. 1st DCA 1978); McDonald v. Department of Banking and Finance, 346 So.2d 569, 584 (Fla. 1st DCA 1979). DER is only one of several agencies required to prepare reports. Section 403.507, Florida Statutes (1989). Sitting as the Siting Board, the Governor and Cabinet take final action, Section 403.509(4), Florida Statutes (1989), which may or may not comport with what DER or any other agency recommends.

Applicants' Burden

91. Parties seeking certification bear the burden of demonstrating entitlement. The courts view it "as fundamental that an applicant for a license or permit carries 'the ultimate burden of persuasion' of entitlement through all proceedings, of whatever nature, until such time as final action has been taken by the agency." Florida Department of Transportation v. J.W.C. Co., Inc., 396 So.2d 778, 787 (Fla. 1st DCA 1981); Zemour, Inc. v. State Division of Beverage, 347 So.2d 1102, (Fla 1st DCA 1977). See generally Balino v. Department of Health and Rehabilitative Services, 348 So.2d 349 (Fla. 1st DCA 1977); Rule 17-103.130(1)(a), Florida Administrative Code. But those who oppose an application "must identify the areas of controversy and allege a factual basis for the contention that the facts relied upon fall short of carrying the 'reasonable assurances' burden cast upon the applicant." Florida Department of Transportation v. J.W.C. Co., Inc., 396 So.2d 778, 789 (Fla. 1st DCA 1981). On the basis of the facts found and record made at the certification hearing, the Siting Board decides any disputes among parties as to whether reasonable assurances have been given that a project will comply with specific criteria, and be consonant with the legislative intent the FEPPSA evinces.

Unitary Process, Multiple Criteria

92. The FEPPSA reposes exclusive permitting authority in the Siting Board. But it evinces no intention to abrogate substantive statutory and rule requirements, unless they were in conflict with FEPPSA at the time of its adoption. Section 403.510(1), Florida Statutes (1989). The FEPPSA replaces multiple applications with a single application, and makes agencies that would otherwise have conducted their own proceedings parties to a single, consolidated proceeding. The FEPPSA establishes "the process by which [an applicant] obtains permission and a certification . . . in order to build [and operate] a plant," Gaines v. City of Orlando, 450 So.2d 1174, 1180 (Fla. 5th DCA 1984), but does not supersede regulatory criteria compatible with the unified process.

93. Articulating legislative intent that electrical power plants be located and operated so as to do the least possible damage to the environment, the FEPPSA provides:

> The Legislature finds that the efficiency of the permit application and review process at both the state and local level would be improved with the implementation of a process whereby a permit application would be centrally coordinated and all permit

decisions could be reviewed on the basis of standards and recommendations of the deciding agencies. It is the policy of this state that, while recognizing the pressing need for increased power generation facilities, the state shall ensure through available and reasonable methods that the location and operation of electrical power plants will produce minimal adverse effects on human health, the environment, the ecology of the land and its wildlife and the ecology of state waters and their aquatic life. It is the intent to seek courses of action that will fully balance the increasing demands for electrical power plant location and operation with the broad interests of the public. Such action will be based on these premises:

(1) To assure the citizens of Florida that operation safeguards are technically sufficient for their welfare and protection.

(2) To effect a reasonable balance between the need for the facility and the environmental impact resulting from construction and operation of the facility, including air and water quality, fish and wildlife, and the water resources and other natural resources of the state.

(3) To provide abundant, low-cost electrical energy.

Section 403.502, Florida Statutes (1989). (Emphasis supplied.) The FEPPSA contains no criteria quantifying acceptable adverse effects on "human health, the environment, the ecology of the land and its wildlife, and the ecology of the state's waters and their aquatic life." Section 403.502, Florida Statutes (1989).

94. In reviewing power plant certification applications, DER's practice has been to gauge compliance with the broad FEPPSA standard by reference to standards found in its own rules and organic statutes; and in the rules, statutes or ordinances of the other governmental entities whose permitting jurisdiction the Siting Board's displaces. (T.1237; 1240). Prior orders of the Siting Board reflect this approach. By statute, DER criteria apply even when first promulgated in rules adopted after certification occurs. Section 403.511(5), Florida Statutes (1989).

95. The apparent purpose of making environmental agencies statutory parties is to assure that the Siting Board will have the benefit of their regulatory expertise, which consists principally of evaluating compliance with the substantive criteria they administer. Section 403.502, Florida Statutes (1989) refers explicitly to "the standards and recommendations of the deciding

agencies," i.e., those involved in the certification proceeding. See also Rule 17-141(2), Florida Administrative Code. In assessing the environmental effects of a proposed power plant, the substantive requirements the agency parties apply in other contexts are an appropriate starting point.

96. The FEPPSA contemplates deviation, in appropriate cases, from substantive criteria set out in other statutes; and from substantive standards promulgated as rules by DER or, if "expressly considered during the proceeding," Section 403.511(2), Florida Statutes (1989), by any other agency. By authorizing applicants to seek variances from such standards, the FEPPSA implies that the standards would otherwise govern applications like the one petitioners have filed. Section 403.511(2), Florida Statutes (1989). See also Sections 403.504(8) and 403.507, Florida Statutes (1989), requiring preparation and submission of reports by specified agencies, including the pertinent water management district "with respect to any matters within its jurisdiction." Section 403.507(1)(b), Florida Statutes (1989). On the other hand, the "minimal adverse effects" standard undoubtedly requires that certain effects be kept below what might be permitted in other contexts.

Agreements Narrow Issues

97. The evidence the parties put on in the present certification hearing suggested several questions: In order to assure minimal environmental impact, why was natural gas not chosen as the principal fuel to fire the boilers? After all, substituting natural gas (with fuel oil as a back up) for coal would not only reduce air pollution in the largest urban area in north Florida, it would also eliminate the need to excavate a coal storage area, and so the need to pump contaminated ground water into the river. Even if coal is to fire the main burners, why should the auxiliary burners be allowed to use fuel oil at any time natural gas is available? If coal must be used, why should such a high sulfur content be tolerated? Why, even if an average sulfur content as high as 1.7 percent is to be permitted, should train loads containing as much as 3.3 percent be allowed? As an enforcement matter, why should inspectors have to sample 90 rail cars? Would it not be preferable to set (lower) limits by the carload?

98. Why should wastewater be routed to retention ponds from which it is likely to overflow untreated into the Broward River several times during the life of the plant? Since dewatering will add copper to the St. Johns River in concentrations DER rules

forbid, albeit at lower than ambient concentrations, why should the applicants not be required to remove an equivalent quantity of copper by treating river water, after the dewatering ends? Whatever the importance of these questions, neither DER nor any other party put the applicants to their proof in the certification hearing with respect to any of them. On that account, these questions, like any others not raised by the parties, are not a proper basis for a recommendation as to the pending application. Even after the Siting Board's final order, the FEPPSA provides that "[t]he parties to the certification proceeding may modify the terms and conditions of the certification by mutual written agreement." Section 403.516(1)(b), Florida Statutes (1989).

Time Limits

99. By a series of side agreements, the applicants obviated opposition by all parties except SJRWMD. SJRWMD seeks only to add the following condition, SJRWMD's proposed condition 9, to certification:

> This Certification as to the subject of consumptive use will expire seven years from the date of issuance. Prior to the expiration of the seven-year consumptive use approval, in order to seek renewal, AES Cedar Bay, Inc., shall submit to DER all information, data, studies and modeling sufficient to establish that approval of consumptive use of water by the facility should be renewed. The Board hereby delegates to the Secretary the authority to approve, deny, or approve with conditions, after notice of opportunity for hearing, the renewal of any consumptive use of water by the facility. Prior to any such action by the Secretary, the Secretary shall request and consider a report by the St. Johns River Water Management District as to the request for renewal.

100. SJRWMD raises no issue as to any aspect of the application other than the consumptive use of water for cooling, beyond an initial interim period.

101. The seven-year limit SJRWMD proposes would work in tandem with the reuse condition, (T.493, 565-66) which is also designed to assure the use of reclaimed water for cooling tower make-up early in the project's life. Coupled with the duration condition, SJRWMD contends, the reuse provision is necessary to ensure that groundwater will not be used for cooling, without reevaluation, for more than seven years. At that time, if not before, sources of water available for cooling would be reevaluated. (T.493; 529-30; 534; 565-66).

102. The dispute between the applicants and SJRWMD boils down to a legal question, or perhaps a question of semantics. There is no real factual dispute. SJRWMD makes a convincing case for periodic review as a means of achieving a proper allocation of increasingly scarce groundwater. Section 373.223(1), Florida Statutes (1989), which forbids interference with any presently existing legal use of water, does not authorize consideration of all potentially competing uses that may arise over the next 30 years. The statute provides:

> (1) To obtain a permit pursuant to the provisions of this chapter, the applicant must establish that the proposed use of water:
>
> (a) Is a reasonable-beneficial use as defined in s. 373.019(4);
> (b) Will not interfere with any presently existing legal use of water; and
> (c) Is consistent with the public interest.

Section 373.223, Florida Statutes (1989). Section 9.2.2 of the "Applicant's Handbook, Consumptive Uses of Water" (A.H.) defines interference as "a decrease in the withdrawal capability of any individual withdrawal facility of a legal use of water which was existing at the time of the application for the initial permit such that the existing user experiences economic, health, or other type of hardship." Parts I, II, and III of the A.H. have been adopted by reference in Section 40C-2.101, Florida Administrative Code.

103. Section 373.019(4), Florida Statutes (1989), defines "reasonable-beneficial use":

> "Reasonable-beneficial use" means the use of water in such quantity as is necessary for economic and efficient utilization for a purpose and in a manner which is both reasonable and consistent with the public interest.

104. Section 10.3 in Part II of the Applicant's Handbook provides these reasonable-beneficial use criteria:

> Based upon the statutory guidance and the delineation factors found in State Water Policy, the Governing Board has determined that the following criteria must be met in order for a use to be considered reasonable beneficial:

(a) The use must be in such quantity as is necessary for economic and efficient utilization. The quantity applied for the designated use (see Section 12.0 for standards used in evaluation of need/allocation).
(b) The use must be for a purpose which is both reasonable and consistent with the public interest.
(c) The source of the water must be capable of producing the requested amounts of water. This capability will be based upon records available to the District at the time of evaluation. An eight of ten year capability will be considered acceptable.
(d) The environmental or economic harm caused by the consumptive use must be reduced to an acceptable amount. The methods for reducing harm include: the method or schedule of withdrawal, or mitigating the damages caused (see also subsections 9.4.3 and 9.4.4 of this Handbook).
(e) To the degree which is financially, environmentally, and socially practicable, available water conservation and reuse measures shall be used or proposed for use.
(f) The consumptive use should not cause significant saline water intrusion or further aggravate currently existing saline water intrusion problems.
(g) The consumptive use should not cause or contribute to flood damage.
(h) The water quality of the source of the water should not be seriously harmed by the consumptive use.
(i) The water quality of the receiving body of water should not be seriously harmed by the consumptive use. A valid permit issued pursuant to Section 17-4.24 or Section 17-4.26, Florida Administrative Code, shall establish a presumption that this criteria has been met.

Section 373.103(1), Florida Statutes (1989), requires that the consumptive use permit system be administered consistently with state water policy. Rule 17-40.401(2), Florida Administrative Code, contains water policy provisions relevant to the reasonable-beneficial use standard. Paragraphs (c) and (j) of the rule, taken together, require matching uses with water of the lowest suitable quality, if available.

105. SJRWMD concedes that the consumptive use proposed, including interim use of four million gallons a day for cooling, is consistent with the public interest within the meaning of Section 9.3, A.H., and Paragraph 373.223(1)(c), Florida Statutes (1989). The applicants seek authorization to pump water that will be used to provide needed electricity, in a manner which does not degrade the water resource, and which minimizes the use of ground water through the eventual use of reclaimed water, as soon as it becomes available.

106. SJRWMD contends a seven-year limitation on the use of cooling water should be included in the conditions of certification because: (1) As knowledge of the resource improves, SJRWMD's analysis may change, and answers to the legal questions whether the use is a reasonable-beneficial one and in the public interest may also change; (2) New and more effective water conservation and reuse practices are being developed. Whether this use will remain a reasonable-beneficial use and in the public interest may depend on these advances; and (3) SJRWMD and DER must be able to require users to re-establish, to SJRWMD's and DER's satisfaction, that their use continues to meet statutory criteria. The absence of a duration provision in the FEPPSA, when contrasted with later certification statutes having such provisions, makes clear, SJRWMD argues, that a seven-year limitation on petitioner's consumptive use would not conflict with the language or spirit of the FEPPSA.

107. But, the applicants argue, the FEPPSA does not contemplate the expiration of the consumptive use aspect (or any other component) of a site certification. The statute creates a single, all-encompassing license, when it provides that "certification shall be in lieu of any license, permit, certificate, or similar document." Section 403.511(3), Florida Statutes (1989). Staggered expiration times for different facets of certification would be at odds with this statutory synthesis, they maintain.

108. The applicants' assertion that the FEPPSA does not contemplate partial, automatic expiration (absent renewal), once certification issues, is undoubtedly correct. But a broad range of appropriate certification conditions, mandatory as well as prohibitory, are essential to the proper working of the certification process the statute creates. In the event a certificate holder fails to comply with a condition of certification, proceedings can be instituted under Sections

403.512 and 403.514, Florida Statutes (1989), in order to enforce compliance or, if necessary, to revoke certification.

109. Circumstances are bound to change in many particulars over the thirty years this plant is expected to remain in operation; and nothing in the FEPPSA requires that every detail of its operation be immutably established initially for the whole period. Indeed, the statute contemplates the possibility of change, even if conditions on site remain static. Plants already certified must nevertheless comply with applicable "rules adopted by [DER] subsequent to the issuance of the certification which prescribe new or stricter criteria." Section 403.511(5)(a), Florida Statutes (1989).

110. No disputed condition can be imposed unless evidence (or its absence) at the certification hearing makes it an appropriate means to further the purposes of the FEPPSA. In the present case, evidence at hearing failed to establish that continuing to use four million gallons of ground water a day as cooling tower make-up for more than seven years constituted a reasonable-beneficial use. The proof showed that Seminole Kraft's operations result in millions of gallons of wastewater a day; and demonstrated the high likelihood that other millions of gallons of reclaimed wastewater would become available from the City of Jacksonville in the near future. Although phosphate removal and other treatment might be necessary, the evidence showed that a condition requiring a switch to reclaimed water for cooling purposes within the next seven years is a reasonable means for the protection of a limited environmental resource. If necessary, the applicants could seek modification of this condition, in accordance with Section 403.516, Florida Statutes (1989).

RECOMMENDATION

It is, accordingly,

RECOMMENDED:

That the Siting Board grant the site certification application filed by AES Cedar Bay, Inc. and Seminole Kraft Corporation, as amended, subject to the agreed conditions of certification attached to the recommended order as an appendix, and on condition that the facility use reclaimed wastewater as cooling tower make-up within seven years of beginning operation.

DONE and ENTERED this 29th day of May, 1990, in Tallahassee, Leon County, Florida.

ROBERT T. BENTON, II
Hearing Officer
Division of Administrative Hearings
The DeSoto Building
1230 Apalachee Parkway
Tallahassee, Florida 32399-1550
(904) 488-9675

Filed with the Clerk of the
Division of Administrative Hearings
this 29th day of May, 1990.

APPENDIX

CONDITIONS OF CERTIFICATION

When a condition is intended to refer to both AES Cedar Bay, Inc. and Seminole Kraft Corp., the term "Cedar Bay Cogeneration Project or the abbreviation "CBCP" or the term "permittees" will be used. Where a condition applies only to AES Cedar Bay, Inc. the term "AES Cedar Bay, Inc." or the abbreviation "AESCB" or the term "permittee," where it is clear that AESCB is the intended responsible party, will be used. Similarly, where a condition applies only to Seminole Kraft Corp., the term "Seminole Kraft Corp." or the abbreviation "SK" or the term "permittee," where it is clear that SK is the intended responsible party, will be used. The Department of Environmental Regulation may be referred to as DER or the Department. BESD represents the City of Jacksonville, Bio-Environmental Services Division. SJRWMD represents the St. Johns River Water Management District.

I. GENERAL

The construction and operation of CBCP shall be in accordance with all applicable provisions of at least the following regulations of the Department Chapters 17-2, 17-3, 17-4, 17-5, 17-6, 17-7, 17-12, 17-21, 17-22, 17-25 and 17-610, Florida Administrative Code (F.A.C.) or their successors as they are renumbered.

II. AIR

The construction and operation of AESCB shall be in accordance with all applicable provisions of Chapters 17-2, F.A.C. In addition to the foregoing, AESCB shall comply with the following condition of certification as indicated.

A. Emission Limitations for AES Boilers

1. Fluidized Bed Coal Fired Boilers (CFB)

a. The maximum coal charging rate of each CFB shall neither exceed 104,000 lbs/hr, 39,000 tons per month (30 consecutive days, nor 390,000 tons per year (TPY). This reflects a combined total of 312,000 lbs/hr, 117,000 tons per month, and 1,170,000 TPY for all three CFBs.

b. The maximum wood waste (primarily bark) charging rate to the No. 1 and No. 2 CFBs each shall neither exceed 15,653 lbs/hr, nor 63,760 TPY. This reflects a combined total of 31,306 lbs/hr, and 127,521 TPY for the No. 1 and No. 2 CFBs. The No. 3 CFB will not utilize woodwaste, nor will it be equipped with wood waste handling and firing equipment.

c. The maximum heat input to each CFB shall not exceed 1063 MMBtu/hr. This reflects a combined total of 3189 MMBtu/hr for all three units.

d. The sulfur content of the coal shall not exceed 1.7% by weight on an annual basis. The sulfur content shall not exceed 3.3% by weight on a shipment (train load) basis.

e. Auxiliary fuel burners shall be fueled only with natural gas or No. 2 fuel oil with a maximum sulfur content of 0.3% by weight. The fuel oil with a maximum sulfur content of 0.3% by weight. The fuel oil or natural gas shall be used only for startups. The maximum annual oil usage shall not exceed 160,000 gals/year, nor shall the maximum annual natural gas usage exceed 22.4 MMCF per year. The maximum heat input from the fuel oil or gas shall not exceed 1120 MMBtu/hr for the CFBs.

f. The CFBs shall be fueled only with the fuels permitted in Conditions 1a., 1b and 1e above. Other fuels or wastes shall not be burned without prior specific written approval of the Secretary of DER pursuant to condition XXI, Modification of Conditions.

g. The CFBs may operate continuously, i.e. 8760 hrs/yr.

2. Coal Fired Boiler Controls

The emissions from each CFB shall be controlled using the following systems:

a. Limestone injection, for control of sulfur dioxide.

b. Baghouse, for control of particulate.

3. Flue gas emissions from each CFB shall not exceed the following:

		Emission Limitations		
Pollutant	lbs/MMBtu	lbs/hr	TPY	TPY for 3 CFBs
CO	0.19	202	823	2468
NOx	0.29	308.3	1256	3767
SO2	0.60(3-hr avg.)	637.8	--	--
	0.31(12 MRA)	329.5	1338	4015
VOC	0.016	17.0	69	208
PM	0.020	21.3	87	260
PM10	0.020	21.3	86	257
H2SO4mist	0.024	25.5	103	308
Fluorides	0.086	91.4	374	1122
Lead	0.007	7.4	30	91
Mercury	0.00026	0.276	1.13	3.4
Beryllium	0.00011	0.117	0.5	1.5

Note: TPY represents a 93% capacity factor. MRA refers to a twelve month rolling average.

4. Visible emissions (VE) shall not exceed 20% capacity (6 min. average), except for one 6 minute period per hour when VE shall not exceed 27% capacity.

5. Compliance with the emission limits shall be determined by EPA reference method tests included in the July 1, 1988 version of 40 CFR Parts 60 and 61 and listed in Condition No. 7 of this permit or be equivalent methods after prior DER approval.

6. The CFBs are subject to 40 CFR Part 60, Subpart Da; except that where requirements within this certification are more restrictive, the requirements of this certification shall apply.

7. Compliance Tests for each CFB

a. Initial compliance tests for PM/PM10, SO2, NOx, CO, VOC, lead, fluorides, mercury, beryllium and H2SO4 mist shall be conducted in accordance with 40 CFR 60.8 (a), (b), (d), (e), and (f).

b. Annual compliance tests shall be performed for PM. SO2, NOx, commencing no later than 12 months from the initial test.

c. Initial and annual visible emissions compliance tests shall be determined in accordance with 40 CFR 60.11(b) and (e).

d. The compliance tests shall be conducted between 90-100% of the maximum licensed capacity and firing rate of each permitted fuel.

e. The following test methods and procedures of 40 CFR Parts 60 and 61 or other DER approved methods with prior DER approval shall be used for compliance testing:

(1) Method 1 for selection of sample site and sample traverses.
(2) Method 2 for determining stack gas flow rate.
(3) Method 3 or 3A for gas analysis for calculation of percent O2 and CO2.
(4) Method 4 for determining stack gas moisture content to convert the flow rate from actual standard cubic feet to dry standard cubic feet.
(5) Method 5 or Method 17 for particulate matter.
(6) Method 6, 6C, or 8 for SO2.
(7) Method 7, 7A, 7B, 7C, 7D, or 7E for nitrogen oxides.
(8) Method 8 for sulfuric acid mist.
(9) Method 9 for visible emissions, in accordance with 40 CFR 60.11.
(10) Method 10 for CO.
(11) Method 12 for lead.
(12) Method 13B for fluorides.
(13) Method 25A for VOCs.

(14) Method 101A for mercury.
(15) Method 104 for beryllium.

8. Continuous Emission Monitoring for each CFB

AESCB shall use Continuous Emission Monitors (CEMS) to determine compliance. CEMS for opacity, SO2, NOx, CO, and O2 or CO2, shall be installed, calibrated, maintained and operated for each unit, in accordance with 40 CFR 60.47a and 40 CFR 60 Appendix F.

a. Each continuous emission monitoring system (CEMS) shall meet performance specifications of 40 CFR 60, Appendix B.

b. CEMS data shall be recorded and reported in accordance with F.A.C. Chapter 17-2, F.A.C., and 40 CFR 60. A record shall be kept for periods of startup, shutdown and malfunction.

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

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

e. Opacity monitoring system data shall be reduced to 6-minute averages, based on 36 or more data points, and gaseous CEMS data shall be reduced to 1-hour averages, based on 4 or more data points, in accordance with 40 CFR 60.13(h).

f. For purposes of reports required under this certification, excess emissions are defined as any calculated average emission concentration, as determined pursuant to Condition No. 10 herein, which exceeds the applicable emission limit in Condition No. 3.

9. Operations Monitoring for each CFB

a. Devices shall be installed to continuously monitor and record steam production, and flue gas temperature at the exit of the control equipment.

b. The furnace heat load shall be maintained between 70% and 100% of the design rated capacity during normal operations.

c. The coal, bark, natural gas and No. 2 fuel oil usage shall be recorded on a 24-hr (daily) basis for each CFB.

10. Reporting for each CFB

a. A minimum of thirty (30) days prior notification of compliance test shall be given to DER's N.E. District office and to the BESD (Bio-Environmental Services Division) office, in accordance with 40 CFR 60.

b. The results of compliance test shall be submitted to the BESD office within 45 days after completion of the test.

c. The owner or operator shall submit excess emission reports to BESD, in accordance with 40 CFR 60. The report shall include the following:

(1) The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factors used, and the date and time of commencement and completion of each period of excess emissions (60.7(c)(1)).

(2) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the furnace boiler system. The nature and cause of any malfunction (if known) and the corrective action taken or preventive measured adopted (60.7(c)(2)).

(3) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks, and the nature of the system repairs of adjustments (60.7(c)(3)).

(4) When no excess emissions have occurred or the continuous monitoring system has not been inoperative, repaired, or adjusted, such information shall be stated in the report (60.7(c)(4)).

(5) The owner or operator shall maintain a file of all measurements, including continuous monitoring systems performance evaluations; monitoring systems or monitoring device calibration; checks; adjustments and maintenance performed on these systems or devices; and all other information required by this permit recorded in a permanent form suitable for inspection (60.7(d)).

d. Annual and quarterly reports shall be submitted to BESD as per F.A.C. Rule 17-2.700(7).

11. Any change in the method of operation, fuels utilized, equipment, or operating hours or any other changes pursuant to F.A.C. Rule 17-2.100, defining modification, shall be submitted for approval to DER's Bureau of Air Regulation.

B. AES - Material Handling and Treatment

1. The material handling and treatment operations may be continuous, i.e. 8760 hrs/yr.

2. The material handling/usage rates shall not exceed the following:

	Handling/Usage Rate	
Material	TPM	TPY
Coal	117,000	1,170,000
Limestone	27,000	320,000
Fly Ash	28,000	336,000
Bed Ash	8,000	88,000

Note: TPM is tons per month based on 30 consecutive days, TPY is tons per year.

3. The VOC emissions from the maximum No. 2 fuel oil utilization rate of 240 gals/hr, 2,100,000 gals/year for the limestone dryers; and 8000 gals/hr, 160,000 gals/year for the three boilers are not expected to be significant.

4. The maximum emissions from the material handling and treatment area, where baghouses are used as controls for specific sources, shall not exceed those listed below (based on AP-42 factors):

	Particulate Emissions	
Source	lbs/hr	TPY
Coal Rail Unloading	neg	neg
Coal Belt Feeder	neg	neg
Coal Crusher	0.41	1.78
Coal Belt Transfer	neg	neg
Coal Silo	neg	neg
Limestone Crusher	0.06	0.28
Limestone Hopper	0.01	0.03
Fly Ash Bin	0.02	0.10

Bed Ash Hopper	0.06	0.25
Ash Silo	0.06	0.25
Common Feed Hopper	0.03	0.13
Ash Unloader	0.01	0.06

The emissions from the above listed sources and the limestone dryers are subject to the particulate emission limitation requirement of 0.03 gr/dscf. However, neither DER nor BESD will require particulate tests in accordance with EPA Method 5 unless the VE limit of 5% opacity is exceeded for a given source, or unless DER or BESD, based on other information, has reason to believe the particulate emission limits are being violated.

5. Visible Emissions (VE) shall not exceed 5% opacity from any source in the material handling and treatment area, in accordance with F.A.C. Chapter 17-2.

6. The maximum emissions from each of the limestone dryers while using oil shall not exceed the following (based on AP-42 factors, Table 1, 3-1, Industrial Distillate, 10/86):

		Estimated Limitations	
Pollutant	lbs/hr	TPY	TPY for 2 dryers
PM/PM10	0.25	1.1	2.2
SO2	5.00	21.9	43.8
CO	0.60	2.6	5.2
NOx	2.40	10.5	21.0
VOC	0.05	0.2	0.4

Visible emissions from the dryers shall not exceed 5% opacity. If natural gas is used, emissions limits shall be determined by factors contained in AP-42 Table 1. 4-1, Industrial 10/86.

7. The maximum No. 2 fuel oil firing rate for each limestone dryer shall not exceed 120 gals/hr, or 1,050,000 gals/year. This reflects a combined total fuel oil firing rate of 240 gals/hr, and 2,100,000 gals/year, for the two dryers. The maximum natural gas firing rate for each limestone dryer shall not exceed 16,800 CF per hour, or 147 MMCF per year.

8. Initial and annual Visible Emission compliance tests for all the emission points in the material handling and treatment area, including but not limited to the sources specified in this permit, shall be conducted in accordance with the July 1, 1988 version of 40 CFR 60, using EPA Method 9.

9. Compliance test reports shall be submitted to BESD within 45 days of test completion in accordance with Chapter 17-2.700(7) of the Florida Administrative Code.

10. Any changes in the method of operation, raw materials processed, equipment, or operating hours or any other changes pursuant to F.A.C. Rule 17-2.100, defining modification, shall be submitted for approval to DER's Bureau of Air Regulation (BAR).

C. Requirements for the Permittees

1. Beginning one month after certification, AESCB shall submit to BESD and DER's BAR, a quarterly status report briefly outlining progress made on engineering design and purchase of major equipment, including copies of technical data pertaining to the selected emission control devices. These data should include, but not be limited to, guaranteed efficiency and emission rates, and major design parameters such as air/cloth ratio and flow rate. The Department may, upon review of these data, disapprove the use of any such device. Such disapproval shall be issued within 30 days of receipt of the technical data.

2. The permittees shall report any delays in construction and completion of the project which would delay commercial operation by more than 90 days to the BESD office.

3. Reasonable precautions to prevent fugitive particulate emissions during construction, such as coating of roads and construction sites used by contractors, regrassing or watering areas of disturbed soils, will be taken by the permittees.

4. Fuel shall not be burned in any unit unless the control devices are operating properly, pursuant to 40 CFR Part 60 Subpart Da.

5. The maximum sulfur content of the No. 2 fuel oil utilized in the CFBs and the two unit limestone dryers shall not exceed 0.3 percent by weight. Samples shall be taken of each fuel oil shipment received and shall be analyzed for sulfur content and heating value. Records of the analysis shall be kept a minimum of two years to be available for DER and BESD inspection.

6. Coal fired in the CFBs shall have a sulfur content not to exceed 3.3 percent by weight. Coal sulfur content shall be determined and recorded in accordance with 40 CFR 60.47a.

7. AESCB shall maintain a daily log of the amounts and types of fuel used and copies of fuel analysis containing information on sulfur content and heating values.

8. The permittees shall provide stack sampling facilities as required by Rule 17-2.700(4) F.A.C.

9. Prior to commercial operation of each source, the permittees shall each submit to the BAR a standardized plan or procedure that will allow that permittee to monitor emission control equipment efficiency and enable the permittee to return malfunctioning equipment to proper operation as expeditiously as possible.

D. Contemporaneous Emission Reductions

This certification and any individual air permits issued subsequent to the final order of the Board certifying the power plant site under 403.509, F.S., shall require, that the following Seminole Kraft Corporation sources be permanently shut down and made incapable of operation, and shall turn in their operation permits to the Division of Air Resources Management's Bureau of Air Regulation, at the time of submittal of performance test results for AES's CFBs: the No. 1 PB (power boiler), the No. 2 PB, shall be specifically informed in writing within thirty days after each individual shut down of the above reference equipment. This requirement shall operate as a joint and individual requirement to assure common control for purpose of ensuring that all commitments relied on are in fact fulfilled.

III. WATER DISCHARGES

Any discharges into any waters of the State during construction and operation of AESCB shall be in accordance with all applicable provisions of Chapters 17-3, and 17-6, Florida Administrative Code, and 40 CFR, Part 423, Effluent Guidelines and Standards for Steam Electric Power Generating Point Source Category, except as provided herein. Also, AESCB shall comply with the following conditions of certification:

A. Plant Effluents and Receiving Body of Water

For discharges made from the AESCB power plant the following conditions shall apply:

1. Receiving Body of Water (RBW) - The receiving body of water has been determined by the Department to be those waters of the St. Johns River or Broward River and any other waters affected which are considered to be waters of the State within the definition of Chapter 403, Florida Statutes.

2. Point of Discharge (POD) - The point of discharge has been determined by the Department to be where the effluent physically enters the waters of the State in the St. Johns River via the SKC discharge outfall 001, which is the existing main outfall from the paper mill emergency overflow to the Broward River.

3. Thermal Mixing Zones - The instantaneous zone of thermal mixing for the AESCB cooling system shall not exceed an area of 0.25 acres. The temperature at the point of discharge into the St. Johns River shall not be greater than 95 degrees F. The temperature of the water at the edge of the mixing zone shall not exceed the limitations of Section 17-3.05(1)(d), F.A.C. Cooling tower blowdown shall not exceed 95 degrees F as a 24-hour average, nor 96 degrees F as an instantaneous maximum.

4. Chemical Wastes from AESCB - All discharges of low volume wastes (demineralizer regeneration, floor drainage, labs drains, and similar wastes) and chemical metal cleaning wastes shall comply with Chapter 17-6, F.A.C. at OSN 006 and 007 respectively. If violations of Chapter 17-6 F.A.C. occur, corrective action shall be taken by AESCB. These wastewaters shall be directed to an adequately sized and constructed treatment facility.

5. pH - The pH of the combined discharges shall be such that the pH will fall within the range of 6.0 to 9.0 at the POD to the St. Johns River and shall not exceed 6.5 to 8.5 at the boundary of a 0.25 acre mixing zone.

6. Polychlorinated Bipheny Compounds - There shall be no discharge of polychlorinated bipheny compounds.

7. Cooling Tower Blowdown - AESCB's discharge from Outfall Serial Number 002 - Cooling Tower Blowdown shall be limited and monitored as specified below:

a.

Parameter	Discharge Limit	Monitoring Frequency	Requirement Type
Discharge Flow (mgd)	Report	1/day	Totalizer
Discharge Temp (F)	Instantaneous Maximum	Continuous	Recorder
Total Residual Oxidants	Instantaneous Maximum-.05 mg/l	Continuous	Recorder
Time of Total Residual Oxidant Discharge (TR)	120 minutes per day	Continuous	Recorder
Iron	Instantaneous Maximum-0.5 mg/l	1/week	grab
pH	6-9	1/week	grab

b. There shall be no detectable discharge of the 125 priority pollutants contained in chemicals added for cooling tower maintenance. Notice of any proposed use of compounds containing priority pollutants shall be made to the DER Northeast District Office not later than 180 days prior to proposed use.

c. Samples taken in compliance with the monitoring requirements specified above shall be taken at OSN 002 prior to mixing with any other waste stream.

d. Seminole Kraft Corporation (SKC) shall shut down the mill's once thru cooling system upon completion of the initial compliance tests on the AESCB boilers conducted pursuant to Condition II.A.7. SKC shall inform the DER NE District Office of the shutdown and surrender all applicable operating permits for that facility.

8. Combined Low Volume Wastes shall be monitored at OSN 006 with weekly grab samples. Discharge limitations are as follows:

	Daily Max	Daily Avg
Oil and Grease	20.0 mg/l	15.0
Copper-dissolved	1.0 mg/l*	N/A
Iron-dissolved	1.0 mg/l*	N/A
Flow	Report	N/A
Heavy Metals	Report (See Below)	

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a. The pH of the discharge shall not be less than 7.0* standard units and shall be monitored once per shift, unless more frequent monitoring is necessary to quantify types of nonchemical metal cleaning waste discharged.

b. Serial number assigned for identification and monitoring purposes. Heavy metal analysis shall include total copper, iron, nickel, selenium, and zinc. *Limits applicable only to periods in which nonchemical metal cleaning waste is being discharged via this OSN. Length of composite samples shall be during the periods (s) of nonchemical metal cleaning waste generation and discharge and shall be adequate to quantify differences in sources of waste generated (air preheater vs. boiler fireside, etc.).

9. Chemical Metal Cleaning

AESCB's discharge from outfall serial number 007 - metal cleaning wastes discharged to the Seminole Kraft treatment system. Such discharges shall be limited and monitored by the permittee as specified below:

a.

Effluent Characteristic	Discharge Limits Instantaneous Max	Measurement Frequency	Monitoring Requirements Sample Type
Flow - m3/day (MGD)	-	1/batch	Pump log
Copper, Total	1.0 mg/l	1/	grab
Iron, Total	1.0 mg/l	1/	grab
Batches	Report	1/batch	logs

b. Chemical metal-cleaning wastes shall mean process equipment cleaning including, but not limited to, boiler tubes cleaning.

c. Waste treated and discharged via this OSN shall not include any stream for which an effluent guideline has not been established (40 CFR Part 423) for total copper and total iron at the above levels.

d. Samples taken in compliance with the monitoring requirement specified above shall be taken at the discharge from the metal-cleaning waste treatment facility(s) prior to mixing with any other waste stream.

10. Storm Water Runoff - During construction and operation discharge from the storm water runoff collection system from a storm event less than the once in ten year twenty-four hour storm shall meet the following limits and shall be monitored at OSN 003 by a grab sample once per discharge, but not more often than once per week:*

Effluent Characteristic	Discharge Limits Instantaneous Maximum
Flow (MGD)	Report
TSS (mg/l)	50
pH	6.0-9.0

a. During plant operation, necessary measures shall be used to settle, filter, treat or absorb silT.containing or pollutanT.laden storm water runoff to limit the suspended solids to 50 mg/l or less at OSN 003 during rainfall periods less than the 10-year, 24-hour rainfall.

b. Any underdrains must be checked annually and measures must be taken to insure that the underdrain operates as designed. Permittees will have to modify the underdrain system should maintenance measures be insufficient to achieve operation of the underdrains as designed. AES Cedar Bay must back flush the exfiltration/underdrain system at least once during the first six months of calendar each year. These backflushings must occur no closer than four calendar months from each other. In advance of backflushing the exfiltration/underdrain systems, the permittees must notify BESD and SJRWMD of the date and time of the backflushing.

c. Control measures shall consist at the minimum of filters, sediment, traps, barriers, berms or vegetative planting. Exposed or disturbed soil shall be protected as soon as possible to minimize silt, and sedimenT.laden runoff. The pH shall be kept within the range of 6.0 to 9.0 in the discharge to the St. Johns River and 6.5 to 8.5 in the Broward River.

d. Special consideration must be given to the control of sediment laden runoff resulting from storm events during the construction phase. Best management practices erosion controls should be installed early during the construction period so as to prevent the transport of sediment into surface waters which could result in water quality violations and Departmental enforcement action. Revegetation and stabilization of disturbed areas should be accomplished as soon as possible to reduce the potential for further soil erosion. Should construction phase runoff pose a threat to the water quality of state waters, additional measures such as treatment of impounded runoff of the use of turbidity curtains (screens) in on-site impoundments shall be immediately implented with any releases to state waters to be controlled.

e. It is necessary that there be an entity responsible for maintenance of the system pursuant to Section 17-25.027, F.A.C.

f. Correctional action or modification of the system will be necessary should mosquito problems occur.

g. AES Cedar Bay shall submit to DER with copy to BESD, erosion control plans for the entire construction project (or discrete phrases of the project) detailing measures to be taken to prevent the offsite discharge of turbid waters during construction. These plans must also be provided to the construction contractor prior to the initiation of construction.

h. All swale and retention basin side slopes shall be seeded and mulched within thirty days following their completion and a substantial vegetative cover must be established within ninety days of seeding.

11. Boiler Blowdown

Discharge from boiler blowdown to the cooling tower from outfall serial Number 004 shall be limited and monitored as specified below:

Effluent Characteristic	Discharge Limits		Monitoring Requirements
	Daily Maximum	Sample Type	Measurement Frequency
TSS	30.0	grab	1/Quarter
Oil and Grease	15.0	grab	1/Quarter
Flow	-	Calculation	1/Quarter

12. Construction Dewatering

a. Discharge of construction dewatering to the SKC once-through cooling system from outfall serial number 005 shall be limited and monitored as specified below:

Effluent Characteristic	Discharge Limits	Monitoring Requirements	
	Instantaneous Maximum	Measurement Frequency	Sample Type
Flow - m3/day (MGD)	-	daily	Totalizer
Turbidity (NTU)	164	1/week	grab
Aluminium mg/l	1.5	1/week	grab
Copper mg/l	0.046	daily	composite
Iron mg/l	0.3	1/week	grab
Lead mg/l	0.5	1/week	grab
Mercury mg/l	0.002	1/week	grab

Phenol ug/l	35.7	daily	grab
TSS mg/l	50.0	1/week	grab
pH	6.0-9.0	1/week	grab

b. Variance - In accordance with the provisions of Section 403.201 and 403.511(2), F.S., AES Cedar Bay is hereby granted a variance to water quality standards of Chapter 17-3.121, F.A.C. for copper subject to the following conditions.

1. AES Cedar Bay shall treat the construction dewatering discharge so as not to exceed 0.046 milligrams per liter for copper in the effluent from the dewatering treatment system.

2. AES Cedar Bay shall do sufficient bench testing to demonstrate that it can meet the above limit for copper. AES Cedar Bay shall notify DER and BESD of the bench testing, and allow DER and BESD to be present if they so desire to observe the bench testing.

3. In addition, AES Cedar Bay shall determine the amount of treatment and removal provided for iron, aluminum and lead by the method of treatment selected for copper.

4. A report shall be submitted to DER and BESD summarizing the results of the bench testing of the proposed treatment technique.

5. The variance shall be valid beginning with the start of dewatering and lasting until the end of construction dewatering but not to exceed a period of two years (not including periods of interruption in the construction dewatering).

6. The Secretary has been delegated the authority to grant additional variances or mixing zones from water quality standards should AES Cedar Bay demonstrate any to be necessary after consideration of comments from the parties, public notice and an opportunity for hearing, pursuant to section 120.57 F.S., with final action by the Siting Board if a hearing is requested.

7. In the absence of such final action by the Secretary, compliance with water quality standards shall be measured at the designated POD to the St. John River unless a zone of mixing is granted.

c. Project discharge descriptions - Dewatering water, outfall 005, includes all surficial groundwater extracted during all excavation construction on site for the purpose of installing structures, equipment, etc. Discharges to the SKC once through cooling water system at a location to be depicted on an appropriate engineering drawing to be submitted to DER and BESD. Final discharge after treatment is to the St. Johns River. The permittee shall report to BESD the date that construction dewatering is expected to begin at least one week prior to the commencement of dewatering.

13. Mixing zones - The discharge of the following pollutants shall not violate the Water Quality Standards of Chapter 17-3, F.A.C., beyond the edge of the designated instantaneous mixing zones as described herein. Such mixing zones shall apply when the St. Johns River is in compliance with the applicable water quality standard.

a. Plant Dewatering Operations for two years from the date construction dewatering commences:

Parameter	Mixing Zone	
Aluminum	125,600 m2	31 acres
Copper	"	31 "
Iron	"	31 "
Lead	"	31 "
Turbidity	12,868 m2	3.2 "
Phenol	12,868 "	3.2 "

The permittee shall report the date construction dewatering commences to the BESD.

b. During operation of CBCP for the life of the facility:

Iron	125,600 m2 (31 acre) mixing zone
Chlorine	0 - not measurable in river
Temp	1,013 m2 (0.25 acre)
pH	1,013 m2 (0.25 acre)

14. Variances to Water Quality Standards - In accordance with the provisions of Sections 403.201 and 403.511(2), F.S., permittees are hereby granted variances to the water Quality Standards of Chapter 17-3.121, F.A.C. for the following:

a. During construction dewatering for a period not to exceed two years -- copper. The Secretary of DER may authorize variances for aluminum, iron, and lead upon a showing that

treatment for copper can not bring these metals into compliance, however, any variance granted shall not cause or allow an exceedance of acute toxicity standards.

b. During Operation -- iron.

Such variances shall apply only as the natural background levels of the St. Johns River approach or exceed those standards. In any event, the discharge from the CBCP shall comply with the effluent limitations set forth in Paragraph III.A.12. At least 90 days prior to start of construction, AES shall submit a bioassay program to assess the toxicity of construction dewatering effluent to the DER for approval. Such program shall be approved prior to start of construction dewatering.

15. Sanitary wastes from AESCB shall be collected and discharged for treatment to the SKC domestic wastewater treatment plant.

B. Water Monitoring Programs

1. Necessity and extent of continuation, and may be modified in accordance with Condition No. XXI, Modification of Conditions.

2. Chemical Monitoring - The parameters described in Condition III.A. shall be monitored during discharge as described in condition III A. commencing with the start of construction or operation of the CFBs and reported quarterly to the Northeast District Office:

3. Coal, Ash, and Limestone Storage Areas - runoff from the coal pile, ash and lime stone storage areas shall be directed to the SK waste-water treatment facility for discharge under its existing waste-water permit. Monitoring of metals, such as iron, copper, zinc, mercury silver, and aluminum, shall be done once a month during any month when a discharge occurs at OSC 008 or once per month from the collection pond.

4. The ground water levels shall be monitored continuously at selected wells as approved by the SJRWMD. Chemical analysis shall be made on samples from all monitored wells identified in Condition III.F. below. The location, frequency and selected chemical analysis shall be as given in Condition IV.F. The ground water monitoring program shall be implemented at least one year prior to operation of the CFBs. The chemical analysis shall be in accord with the latest edition of Standard Methods for the Analysis of Water and Waistwater. The

data shall be submitted within 30 days of collection/analysis to the SJRWMD.

IV. GROUND WATER

A. Prior to the construction, modification, or abandonment of a production well for the SK paper mill, the Seminole Kraft must obtain a Water Well Construction Permit from the SJRWMD pursuant to Chapter 40C-3, Florida Administrative Code. Construction, modification, or abandonment of a production well will require modification of the SK consumptive use permit when such construction, modification or abandonment is other than that specified and described on SK's consumptive use permit application form. The construction, modification, or abandonment of a monitor well specified in condition IV.H. will require the prior approval of the Department. All monitor wells intended for use over thirty days must be noticed to BESD prior to construction or change of status from temporary to permanent.

B. Well Criteria, Tagging and Wellfield Operating Plan

Leaking or inoperative well casings, valves, or controls must be repaired or replaced as required to put the system back in an operative condition acceptable to the SJRWMD. Failure to make such repairs will be cause for deeming the well abandoned in accordance with Chapter 17.21.02(5), Florida Administrative Code, Chapter 373.309, Florida Statutes and Chapter 366.301(b), and .307(a), Jacksonville ordinance code. Wells deemed abandoned will require plugging according to state and local regulations.

A SJRWMD issued identification tag must be prominently displayed at each withdrawal site by permanently affixing such tag to the pump, headgate, valve or other withdrawal facility as provided by Section 40C-2.401, Florida Administrative Code. The SK must notify the SJRWMD in the event that a replacement tag is needed.

The permittees must develop and implement a Wellfield Operating Program within six (6) months of certification. This program must describe which wells are primary, secondary, and standby (reserve); the order of preference for using the wells; criteria for shutting down and restarting wells; describe AES Cedar Bay and SKC responsibilities in the operation of the well field, and any other aspects of well field management operation, such as who the well field operator is and any other aspects of wellfield management operation. This program must be submitted to the SJRWMD and a copy to BESD within six (6) months of

certification and receive District approval before the wells may be used to supply water for the AES Cedar Bay Cogeneration plant.

C. Maximum Annual Withdrawals

Maximum annual withdrawals for AESCB from the Floridan aquifer must not exceed 1.99 billion gallons. Maximum daily withdrawals from the Florida aquifer for the AESCB must not exceed 7.0 million gallons. The use of the Floridan aquifer potable water for control of fugitive dust emissions is prohibited when alternatives are available, such as treated discharges, shallow aquifer wells, or stormwater. The use of Floridan aquifer potable water for the sole purpose of waste stream dilution is prohibited.

D. Water Use Transfer

The SJRWMD must be notified, in writing, within 90 days of the transfer of this certification. All transfers are subject to the provisions of Section 40C-2.351, Florida Administrative Code, which state that all terms and conditions of the permit shall be binding of the transferee.

E. Emergency Shortages

Nothing in this certification is to be construed to limit the authority of the SJRWMD to declare a water shortage and issue orders pursuant to Section 373.175, Florida Statutes, or to formulate a plan for implementation during periods of water shortage, pursuant to Section 373.246, Florida Statutes. In the event of a water shortage, as declared by the District Governing Board, the AESCB shall adhere to reductions in water withdrawals as specified by the SJRWMD.

F. Monitoring and Reporting

1. The permittee shall maintain records of total daily withdrawals for the AESCB on a monthly basis for each year ending on December 31st. These records shall be submitted to the SJRWMD on Form EN-3 by January 31st of each year.

2. Water quality samples shall be taken in May and October of each year from each production well. The samples shall be analyzed by an HRS certified laboratory for the following parameters:

Magnesium	Sulfate
Sodium	Carbonate
Potassium	Bi-Carbonate (or alkalinity if pH is 6.9 or lower)
Chloride	Calcium

All major ion analysis shall be checked for anion-cation balance and must balance within 5 percent prior to submission. It is recommended that duplicates be taken to allow for laboratory problems or loss. The sample analysis shall be submitted to the SJRWMD by May 30 and October 30 of each year.

3. AESCB shall mitigate any adverse impact caused by withdrawals permitted hereinon legal uses of water existing at the time of permit application. The SJRWMD has the right to curtail permitted withdrawal rates or water allocations if the withdrawals of water cause an adverse impact on legal uses of water which existed at the time of permit application. Adverse impacts are exemplified but not limited to:

(A) Reduction of well water levels resulting in a reduction of 10 percent in the ability of an adjacent well to produce water;

(B) Reduction of water levels in an adjacent surface water body resulting in a significant impairment of the use of water in that water body;

(C) Saline water intrusion or introduction of pollutants into the water supply of an adjacent water use resulting in a significant reduction of water quality; or

(D) Change in water quality resulting in either impairment or loss of use of a well or water body.

4. The AESCB shall mitigate any adverse impact cause by withdrawals permitted herein on adjacent land uses which existed at the time of permit application. The SJRWMD had the right to curtail permitted withdrawal rates of water allocations if withdrawals of water cause any adverse impact on adjacent land use

which existed at the time of permit application. Adverse impacts are exemplified by but not limited to:

(A) Significant reduction in water levels in an adjacent surface water body;

(B) Land collapse or subsidence caused by a reduction in water levels; or

(C) Damage to crops and other types of vegetation.

(D) Significant increases in Chloride levels such that it is likely that wells from the plant or those being impacted from the plant, will exceed 250 mg/l.

G. Ground Water Monitoring Requirements

After consultation with the DER, BESD, and SJRWMD, AESCB shall install a monitoring well network to monitor ground water quality horizontally and vertically through the aquifer above the Hawthorm Formation. Ground water quantity and flow directions will be determined seasonally at the site through the preparation of seasonal water table contour maps, based upon water level data obtained during the applicant's preoperational monitoring program. From these maps and the results of the detailed subsurface investigation of site stratigraphy, the water quality monitoring well network will be located. A ground water monitoring plan that meets the requirements of Section 17-28.700(d), F.A.C., shall be submitted to the Department's Northeast District Office for review. Approval or disapproval of the ground water monitoring plan shall be given within 60 days of receipt. Ground water monitoring shall be required at AESCB's pelletized ash storage area, each sedimentation pond, the lime mud storage area, and each coal pile storage area. Insofar as possible, the monitoring wells may be selected from the existing wells and piezometers used in the permittees preoperational monitoring program, provided that the wells construction will not preclude their use. Existing wells will be properly sealed in accordance with Chapter 17-21, F.A.C., whenever they are abandoned due to construction of facilities. The water samples collected from each of the monitor wells shall be collected immediately after removal by pumping of a quantity of water equal to at least three casing volumes. The water quality analysis shall be performed monthly during the year prior to commercial operation and quarterly thereafter. No sampling or analysis is to be initiated until receipt of written approval of a site-specific quality assurance project plant (QAPP) by the Department. Results shall be submitted to the BESD by the

fifteenth (15th) day of the month following the month during which such analysis were performed. Testing for the following constituents is required around unlined ponds or storage areas:

TDS	Cadmium
Conductance	Zinc
pH	Copper
Redox	Nickel
Sulfate	Selenium
Sulfite	Chromium
Color	Arsenic
Chloride	Beryllium
Iron	Mercury
Aluminum	Lead
	Gross Alpha

Conductivity shall be monitored in wells around all lined solid waste disposal sites, coal piles, and wastewater treatment and sedimentation ponds.

H. Leachate

1. Zone of Discharge

Leachate from AESCB's coal storage piles, lime mud storage area or sedimentation ponds shall not cause or contribute to contamination of waters of the State (including both surface and ground waters) in excess of the limitations of Chapter 17-3, F.A.C., beyond the boundary of a zone of discharge extending to the top of the Hawthorne Formation below the wastelandfill cell or pond rising to a depth of 50 feet at a horizontal distance of 200 feet from the edge of the landfill or ponds.

2. Corrective Action

When the ground water monitoring system shows a potential for this facility to cause or contribute to a violation of the ground water quality standards of Chapter 17-3, F.A.C., at the boundary of the zone of discharge, the appropriate ponds or coal pile shall be bottom sealed, relocated, or the operation of the affected facility shall be altered in such a manner as to assure the Department that no violation of the ground water standards will occur beyond the boundary of the zone of discharge.

V. CONTROL MEASURES DURING CONSTRUCTION

A. Storm Water Runoff

During construction, appropriate measures shall be used to settle, filter, treat or absorb silT.containing or pollutanT.laden storm water runoff to limit the total suspended solids to 50 mg/1 or less and pH to 6.0 to 9.0 at OSN 003 during rainfall events that are lesser in intensity than the 10-year, 24-hour rainfall, and to prevent an increase in turbidity of more than 29 NTU above background in waters of the State.

Control measures shall consist at the minimum of sediment traps, barriers, berms or vegetative planting. Exposed or disturbed soil shall be protected as soon as possible to minimize silT. and sedimenT.laden runoff. The pH shall be kept within the range of 6.0 to 9.0 at OSN 003. Stormwater drainage to the Broward River or St. Johns River shall be monitored as indicated below:

Monitoring Point	Parameters	Frequency	Sample Type
*Storm water drainage to the Broward River from the runoff treatment pond	BOD5, TOC, suspended solids, turbidity, dissolved oxygen, pH, TKN, Total phosphorus, Fecal Coliform, Total Coliform	**	**
	Oil and grease	**	**

*Monitoring shall be conducted at suitable points for allowing a comparison of the characteristics of preconstruction and construction phase drainage and receiving waters.

**The frequency and sample type shall be as outlined in a sampling program prepared by the applicant and submitted at least ninety days prior to start of construction for review and approval by the DER Northeast District Office. The District Office will furnish copies of the sampling program to the BESD and SJRWMD and shall indicate approval or disapproval within 60 days of submittal.

B. Sanitary Wastes

Disposal of sanitary wastes from construction toilet facilities shall be in accordance with applicable regulations of the Department and the BESD.

C. Environmental Control Program

Each permittee shall establish an environmental control program under the supervision of a qualified person to assure that all construction activities conform to good environmental practices and the applicable conditions of certification. A written plan for controlling pollution during construction shall be submitted to DER and BESD within sixty days of issuance of the Certification. The plan shall identify and describe all pollutants and waste generagted during construction and the methods for control, treatment and disposal. Each permittee shall notify the Department's Northeast District Office and BESD by telephone within 24 hours if possible if unexpected harmful effects or evidence of irreversible environmental damage are detected by it during construction, shall immediately report in writing to the Department, and shall within two weeks provide an analysis of the problem and a plan to eliminate or significantly reduce the harmful effects or damage and a plan to prevent reoccurrence.

D. Construction Dewatering Effluent

Maximum daily withdrawals for dewatering for the construction of the railcar unloading facility must not exceed 1.44 million gallons, except during the first 30 days of dewatering.

Dewatering for the construction of the railcar unloading facility shall terminate no later than nine months from the start of dewatering.

Should the permittee's dewatering operation create shoaling in adjacent water bodies, the permittee is responsible for removing such shoaling.

All offsite discharges resulting from dewatering activities must be in compliance with water quality standards required by DER Chapters 17-3 and 17-4, F.A.C., or such standards as issued through a variance by DER.

VI. SAFETY

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

X. CHANGE IN DISCHARGE

All discharges or emissions authorized herein to AESCB shall be consistent with the terms and conditions of this certification. The discharge of any pollutant not identified in the application or any discharge more frequent than, or at a level in excess of, that authorized herein shall constitute a violation of this certification. Any anticipated facility expansions, production increases, or process modification which will result in new, different or increased discharges or expansion in steam generating capacity will require a submission of new or supplemental application to DER's Siting Coordination Office pursuant to Chapter 403, F.S.

XI. NONCOMPLIANCE NOTIFICATION

If, for any reason, either permittee does not comply with or will be unable to comply with any limitation specified in this certification, the permittee shall notify the Deputy Assistant Secretary of DER's Northeast District and BESD office by telephone as soon as possible but not later than the first DER working day after the permittee becomes aware of said noncompliance, and shall confirm the reported situation in writing within seventy-two (72) hours supplying the following information:

A. A description and cause of noncompliance; and

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

XII. FACILITIES OPERATION

Each permittee shall at all times maintain good working order and operate as efficiently as possible all of its treatment or control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this certification. Such systems are not to be bypassed without prior Department (Northeast District) after approval and after notice to BESD except where otherwise authorized by applicable regulations.

XIII. ADVERSE IMPACT

The permittees shall take all reasonable steps to minimize any adverse impact 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.

XIV. RIGHT OF ENTRY

The permittees shall allow the Secretary of the Florida Department of Environmental Regulation and/or authorized DER representatives, and representatives of the BESD and SJRWMD, upon the presentation of credentials:

A. To enter upon the permittee's premises where an effluent source is located or in which records are required to be kept under the terms and conditions of this permit; and

B. To have access to and copy all records required to be kept under the conditions of this certification; and

C. To inspect and test any monitoring equipment or monitoring method required in this certification and to sample any discharge or emissional pollutants; and

D. To assess any damage to the environment or violation of ambient standards.

E. SJRWMD authorized staff, upon proper identification, will have permission to enter, inspect, and observe permitted and related CUP facilities in order to determine compliance with the approved plans, specifications, and conditions of this certification.

F. BESD authorized staff, upon proper identification, will have permission to enter, inspect, sample any discharge, and

observe permitted and related facilities in order to determine compliance with the approved plans, specifications, and conditions of this certification.

XV. REVOCATION OR SUSPENSION

This certification may be suspended, or revoked pursuant to Section 403.512, Florida Statutes, or for violations of any Condition of Certification.

XVI. CIVIL AND CRIMINAL LIABILITY

This certification does not relieve either permittee from civil or criminal responsibility or liability for noncompliance with any conditions of this certification, applicable rules or regulations of the Department, or Chapter 403, Florida Statutes, or regulations thereunder.

Subject to Section 403.511, Florida Statutes, this certification shall not preclude the institution of any legal action or relieve either permittee from any responsibilities or penalties established pursuant to any other applicable State Statutes or regulations.

XVII. PROPERTY RIGHTS

The issuance of this certification does not convey any property rights in either real or personal property, tangible or intangible, 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. The permittees shall obtain title, lease or right of use to any sovereign submerged lands occupied by the plant, transmission line structures, or appurtenant facilities from the State of Florida.

XVIII. 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 provision to other circumstances and the remainder of the certification shall not be affected thereby.

XVIV. DEFINITIONS

The meaning of terms used herein shall be governed by the definitions contained in Chapter 403, Florida Statutes, and any regulation adopted pursuant thereto. In the event of any dispute over the meaning of a term used in these general or special 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.

XX. REVIEW OF SITE CERTIFICATION

A. The certification shall be final unless revised, revoked, or suspended pursuant to law. At least every five years from the date of issuance of this certification or any National Pollutant Discharge Elimination Control Act Amendments of 1972 for the plant units, the Department shall review all monitoring data that has been submitted to it or it's agent(s) during the preceding five-year period for the purpose of determining the extent of the permittee's compliance with the conditions of this certification of the environmental impact of this facility. The Department shall submit the results of it's review and recommendations to the permittees. Such review will be repeated at least every five years thereafter.

XXI. MODIFICATION OF CONDITIONS

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

A. The Board hereby delegates to the Secretary the authority to modify, after notice and opportunity for hearing, any conditions pertaining to consumptive use of water, reclaimed water, monitoring, sampling, ground water, surface water, mixing zones, or variances to water quality standards, zones of discharge, leachate control programs, effluent limitations, air emission limitations, fuel, or solid waste disposal, right of entry, railroad spur, transmission line, access road, pipelines, or designation of agents for the purpose of enforcing the conditions of this certification.

B. All other modifications shall be made in accordance with Section 403.516, Florida Statutes.

XXII. FLOOD CONTROL PROTECTION

The plant and associated facilities shall be construed in such a manner as to comply with the Duval County flood protection requirements.

XXIII. EFFECT OF CERTIFICATION

Certification and conditions of certification are predicated upon design and performance criteria indicated in the application. Thus, conformance to those criteria, unless specifically amended, modified, or as the Department and parties are otherwise notified, is binding upon the applicants in the preparation, construction, and maintenance of the certified project. In those instances where a conflict occurs between the application's design criteria and the conditions of certification, the conditions shall prevail.

XXIV. NOISE

To mitigate the effects of noise produced by the steam blowout of steam boiler tubes, the permittees shall conduct public awareness campaigns prior to such activities to forewarn the public of the estimated time and duration of the noise. The permittees shall comply with the applicable noise limitations specified in Environmental Protection Board Rules or The City of Jacksonville Noise Ordinance.

XXV. USE OF RECLAIMED WATER

A. AESCB

A. The AESCB shall design the Cogeneration Facility so as to be capable of using reclaimed and treated domestic wastewater from the City of Jacksonville for use as cooling tower makeup water. Reclaimed water shall be utilized as soon as it becomes available. Ground water may be used only as a backup to the reclaimed water after that time.

Before use of reclaimed water from the City by the permittee, it will be treated to a level suitable for use as cooling tower makeup water. Reclaimed water used in the AESCB cooling tower shall be disinfected prior to use. Disinfectant levels in the cooling tower makeup water shall be continuously monitored, prior to insertion in the cooling tower. The reclaimed water shall be treated so as to obtain no less than a 1.0 mg/liter free chlorine residual after fifteen (15) minutes contact time or its equivalent. Chlorination shall occur at a turbidity of 5

Nephlometric Turbidity Units (NTU) or less, unless a lesser degree of disinfection is approved by the Department upon demonstration of successful viral kill.

Within 120 days following issuance of a modification to the City of Jacksonville's DER wastewater discharge permit allowing Jacksonville, as part of its comprehensive reuse plan, to supply reclaimed water to the Cedar Bay Cogeneration Project, AES Cedar Bay, Inc. shall submit a request for modification to DER for use of reclaimed water for cooling purposes, seeking to make any necessary modifications to their facility and the conditions of certification as may be necessary to allow use of reclaimed water. Its request shall include plans, technical analyses, and modelling needed to evaluate the environmental effects of the proposed modifications. Its request for modification shall also include a financial analysis of the costs of any necessary modifications to its facility, additional operating costs, and the financial impact of these additional costs on AES Cedar Bay, Inc. If DER requires data or analyses concerning the cogeneration facility or its operation, or its discharges or emissions in order to evaluate Jacksonville's application to modify its domestic wastewater discharge permit, AES will supply the necessary information in a timely fashion.

The Secretary, as prescribed in Condition XXI, Modification of Conditions, may modify the conditions of certification contained herein as may be necessary to implement the use of reclaimed water. The use of reclaimed water shall be contingent upon a determination of it being financially practicable, and it meeting applicable environmental standards. Prior to any such action by the Secretary, the Secretary shall request and consider a report by the SJRWMD as to the request for modification for the use of reclaimed water by AES Cedar Bay, Inc.

B. Possible Use of Reclaimed Water

The use of reclaimed water as described above shall not be limited to cooling tower makeup. Reuse water, if available may be used for fugitive particulate emission control, washdown, and any other feasible use for non-potable water which would not require additional treatment.

XXVI. ENFORCEMENT

A. The Secretary may take any and all lawful actions as he or she deems appropriate to enforce any condition of this certification.

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

C. BESD may initiate any and all lawful actions to enforce the conditions of this certification that are based on the Department's rules, after obtaining the Secretary's written permission to so process on behalf of the Department.

XXVII. ENDANGERED AND THREATENED SPECIES

Prior to start of construction, AESCB shall survey the site for endangered and threatened species of animal and plant life. Plant species on the endangered or threatened list shall be transplanted to an appropriate area if practicable. Gopher Tortoises and any commensals on the rare or endangered species list shall be relocated after consultation with the Florida Game and Fresh Water Fish Commission. A relocation program, as approved by the FGFWFC, shall be followed.

XXVIII. PETROLEUM STORAGE TANKS

A. AES Cedar Bay shall provide clean-up of the #1 underground diesel fuel storage tank site, which is listed under the EDI program, in accordance with F.A.C. Chapter 17-770. AES shall complete an Initial Remedial Action (IRA) in accordance with Rule 17-770.300, F.A.C., prior to construction dewatering. DER and BESD will receive written notification ten working days prior to initiation of the IRA. AES shall determine the extent of contamination. AES Cedar Bay shall then design and install a pump and treatment system at the site, which will create a reverse hydraulic gradient that will prevent the further spread of the contamination by the dewatering operation. This plan shall be submitted to DER and BESD for approval, thirty days prior to the start of construction dewatering, and shall be implemented prior to commencement of the dewatering operation. Furthermore, AES Cedar Bay shall submit a Quality Assurance Report (CAR) and a Remedial Action plan (RAP), in accordance with a F.A.C. Chapter 17-770 to DER for approval with copies to BESD thirty days prior to the start of construction dewatering. AES Cedar Bay shall provide complete site rehabilitation in accordance with F.A.C Chapter 17-770.

B. AES Cedar Bay shall develop a QAPP, CAR, and RAP as required and in accordance with Chapter 17-700, F.A.C. for the site listed in XXVIII, C and D below, and submit these plans to DER for approval with copies to BESD thirty days prior to the start of construction dewatering.

C. Prior to construction dewatering, at the underground diesel fuel storage tank #2 site, AES Cedar Bay shall:

1. Perform an IRA with F.A.C. Rule 17-770.300.

2. Determine the extent of down gradient contamination and submit that information to BESD, and DER prior to installation of the well described in paragraph C.4 below.

3. Establish a series of groundwater level monitoring wells at intervals of approximately 250 feet from the coal unloading site to the #2 tank for determination of the groundwater dewatering cone of influence. Daily groundwater levels shall be recorded for each of these wells during construction dewatering. A background well with a continuous water level recorder shall be installed, at a site that would not be influenced by the dewatering operations, to determine ambient conditions at the site.

4. Install a monitoring well with a continuous water level recorder which will be used to trigger implementation of the RAP. The well will be located 150 feet down gradient from the boundary of the plume of contamination determined above in XXVII C.2. If the epiezometric head in the trigger well drops 6 inches below ambient conditions as compared to the background well, then AES Cedar Bay shall notify DER and BESD of a verified drop of 6 inches or more in the trigger well within three working days and the appropriate portion of the RAP shall be implemented by AES Cedar Bay.

5. AES Cedar Bay shall submit a plan for the location and construction of the monitoring wells described above in paragraph C.3 and C.4 to DER and BESD for approval. AES Cedar Bay shall submit monthly reports of the groundwater level recordings to DER and BESD.

D. Prior to construction dewatering, at each of the following tank sites: underground diesel fuel storage tank #3; underground #6 fuel oil shortage tank #5; above-ground #6 fuel oil storage tank #2: "pitch tank" located North of the lime kilns; AES Cedar Bay shall:

1. Install 2 down gradient monitoring wells. AES Cedar Bay shall submit a plan for location and construction of these 8 wells to DER and BESD for approval. BESD shall have the opportunity to observe the construction of these wells.

2. Sample the above reference wells for parameters listed in 17-770.600(8), F.A.C. In addition, AES Cedar Bay shall sample the monitoring wells at the above-ground tank sites for acetone and carbon disulfide. AES Cedar Bay shall split samples with BESD if BESD so requests and submit a report of the analytical results to DER and BESD within ten days of receipt of analysis by AES Cedar Bay.

3. If contamination is found in the above reference wells in excess of the clean-up criteria referenced in 17-770.730(5)(a)2., F.A.C., a QAPP, CAR and an RAP will be development and, DER and BESD shall be provide with that information prior to the installation of the well described in paragraph D.4 below.

4. Install a trigger well with a continuous water level recorder which will be located 150 feet down gradient from the boundary of the plume of contamination determined above in XXVIII.D.3. If the piezometric head in the trigger well drops 6 inches below ambient conditions as compared to the background well then AES Cedar Bay shall notify DER and BESD of a verified drop of 6 inches or more in the trigger well within three working days and the appropriate portion of the RAP shall be implemented by AES Cedar Bay.

5. AES Cedar Bay shall submit a plan for the location and construction of the monitoring wells described above in paragraph D.4, to DER and BESD for approval. AES Cedar bay shall submit monthly reports of the groundwater level recordings to DER and BESD.

E. Implementation of the appropriate portion of the RAP shall commence within 14 days of the determination that the construction dewatering cone of depression will reach any of contaminated sites.

F. AES Cedar Bay shall monitor the construction dewatering effluent from their treatment system, once a week during dewatering, for the following criteria: Benzene 1 ugle; Total VOA 40 ug/l Total Naphthalenes (Total-naphthalenes = methyl napthalenes) 100 ugle; and Total Residual Hydrcarbons 5 mg/l. If

the concentrations of contaminants in the effluent rise above those in the above list, AES Cedar Bay shall take corrective actions to return concentrations to acceptable levels.

G. If any disagreement arises regarding this condition, the parties agree to submit the matter for an expedited hearing to the DOAH and shall request assignment of the hearing officer who has heard the case, if possible, pursuant to 403.5064, F.S. The informal dispute resolution process shall be used.

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SUPPLEMENTAL RECOMMENDED ORDER
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STATE OF FLORIDA
DIVISION OF ADMINISTRATIVE HEARINGS

AES CEDAR BAY, INC. and SEMINOLE KRAFT CORPORATION,	)	
Petitioner,	)	
vs.	)	
DEPARTMENT OF ENVIRONMENTAL REGULATION,	)	
Respondent.	)	
	)	CASE NO. 88-5740
and	)	
CITY OF JACKSONVILLE, DEPARTMENT OF COMMUNITY AFFAIRS, PUBLIC SERVICE COMMISSION, ST. JOHN'S RIVER WATER MANAGEMENT DISTRICT, JACKSONVILLE ELECTRIC AUTHORITY, CHARLES W. BOSTWICK, WILLIAM C. BOSTWICK, BARNETT BANKS TRUST COMPANY, N.A., IMESON INTERNATIONAL PARK, INC., and INDUSTRIAL PARK DEVELOPMENT CORPORATION,	)	
Intervenors.	)	

SUPPLEMENTAL RECOMMENDED ORDER

On August 24, 1990, the Florida Electrical Power Plant Siting Board entered its order of remand, directing that further proceedings take place on petitioners' application for site certification. In consultation with the parties still actively involved in the proceedings, the hearing on remand was scheduled

for October 29, 1990, in Jacksonville, Florida. Proceedings begun that day finished the next. The Division of Administrative Hearings received the hearing transcript on October 31, 1990. The parties filed proposed recommended orders on or before November 13, 1990. At the close of the hearing, one party or another contended that findings of fact Nos. 5, 9, 10, 12, 13, 14, 22, 23, 24, 28, 29, 30, 31, 32, 33, 34, 58, 61, 62, 63, 64, 67, 70, 71, 73, 78, and 82 in the original recommended order might require modification, in whole or in part, in light of evidence adduced on remand; but the parties agreed that no evidence on remand necessitated reconsideration of any other findings of fact set out in the original recommended order on May 29, 1990. Accordingly, findings of fact in this supplemental recommended order may supersede the numbered findings of fact specified above, but should not be read to alter other findings of fact in the original recommended order. Appendix A, attached, addresses by number findings of fact the parties proposed on remand.

APPEARANCES

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For Intervenors: St. Johns River Water Management District	Kathryn L. Mennella, Esquire Post Office Box 1429 Palatka, Florida 32178-1429
For City of Jacksonville and Jacksonville Electric Authority	Richard L. Maguire, Esguire Towncentre, Suite 715 421 West Church Street Jacksonville, Florida 32202

STATEMENT OF THE ISSUES

Whether the location and operation of the proposed coal-fired plant effects a reasonable balance between the need for the facility and the environmental impact resulting from construction

and operation of the facility, including air and water quality, fish and wildlife, and the water resources and other natural resources of the State?

Whether the project complies with the standards of the deciding agencies and whether certification will ensure through available and reasonable methods that the location and operation of the Cedar Bay cogeneration project will produce minimal adverse effects on human health, the environment, the ecology of the land and its wildlife, and the ecology of State waters and their aquatic life based on the design of the project and choice of fuels?

Whether there are other available and reasonable methods to treat or mitigate any adverse effects of copper concentrations contained in the proposed dewatering discharge?

Whether the applicants can demonstrate a commitment to use some source other than groundwater as the permanent primary source of cooling water, such as reclaimed water from the City of Jacksonville, wastewater from the adjacent Seminole Kraft paper mill, or surface water?

PRELIMINARY STATEMENT

On November 14, 1988, petitioners filed an application for certification of the site proposed for the Cedar Bay Cogeneration Project. Although the Department of Environmental Regulation (DER) deemed the application complete as filed, petitioners subsequently amended the site certification application five times before the original hearing took place: on February 10, 1989, July 7, 1989, October 13, 1989, December 13, 1989, December 21, 1989, (AES Composite Exhibit 6) and on January 4, 1990, when the Seminole Kraft Corporation Recovery Boiler and associated facilities were eliminated from the site certification application (AES Exhibit 4; T.116), because DER had already permitted these facilities independently, in parallel proceedings. (T.116)

After public hearings held on April 24 and 25, 1989, the Public Service Commission (PSC) entered its order granting determination of need, on June 30, 1989, concluding that a need exists for the proposed Cedar Bay Cogeneration project. (AES Exhibit No. 7, P.S.) The order stated:

> On November 10, 1988, AES Cedar Bay, Inc. (AES) and Seminole Kraft Corporation (Seminole Kraft) filed a need determination

application with the Department of Environmental Regulation (DER) and a petition for determination of need with this Commission pursuant to the provisions of the Florida Electrical Power Plant Siting Act (Siting Act), Sections 403.501-517, Florida Statutes.

In its petition, AES has requested that it be allowed to build a 225 MW circulating fluidized bed coal qualifying facility (QF) located at an existing industrial site adjacent to and on the property of the Seminole Kraft paper mill in Jacksonville, Florida. All of the electricity produced by this QF will be sold to Florida Power and Light Company (FPL) under the terms of a negotiated agreement. On December 13, 1988, this agreement was submitted to the Commission for approval in Docket No. 881570-EQ.

In evaluating a petition for determination of need, we are bound by the statutory requirements of Sections 403.507(1)(b) and Section 403.519, Florida Statutes, as well as our rules implementing those sections, Rules 25-22.080-081, Florida Administrative Code. Section 403.519 was passed in 1980 as part of the Florida Energy Efficiency and Conservation Act (FEECA), Sections 366.80-85, Florida Statutes, and was intended to remedy several problems which had arisen in the implementation of the Siting Act subsequent to its initial passage in 1973.

First, the section was intended to allow need determinations to be initiated at the Commission prior to the filing of a formal application with DER. Second, it codified court rulings that the "sole forum" for the determination of need was the Commission. Third, it lists specific items which "shall" be considered by the Commission in deciding the question of power plant need: "need for electric system reliability and integrity", "need for adequate electricity at a reasonable cost", "whether the proposed plant is the most cost-effective alternative available", "conservation measures .

which might mitigate the need for the proposed plant" and "other matters within its jurisdiction which it deems relevant."

Cost-effective alternative

The circulating fluidized bed boilers are the first to be constructed in Florida for the production of electricity. This project is a QF pursuant to our rules and AES has negotiated a contract at less than statewide avoided cost for the sale of firm capacity and energy to FPL which falls within the current subscription limit of 500 MW. That being the case, this Commission has already found the proposed QF to be the most cost-effective alternative available.

Conservation

In previous QF need determination cases, we have concluded that "cogeneration is a conservation measure." In re: Petition of Hillsborough County for determination of need for a solid waste-fired cogeneration power plant, 83 F.P.S.C. 10:104, 105 (1983); In re: Petition of Pinellas County for determination of need for a solid waste-fired cogeneration power plant, 83 F.P.S.C. 10:106, 107 (1983); In re: Petition by Broward County for determination of need for a solid waste-fired electrical power plant, 85 F.P.S.C. 5:67, 68 (1985); In re: Petition by Broward County for determination of need for a solid waste-fired electrical power plant, 86 F.P.S.C. 2:287, 288 (1986). We have rethought this position. Traditionally, conservation in the electric industry has been thought of in two ways: an increase in fuel efficiency and a reduction in demand. The first, increased fuel efficiency, is a net reduction in the amount of fuel used to provide the same amount of electricity. The second, a reduction in electric demand, often peak-hour demand, results in the deferral of additional plant construction. The legislative intent of FEECA 366.80-85, Florida Statutes, to reduce

"the growth rates of electric consumption and weather-sensitive peak demand"; to increase "the overall efficiency and cost-effectiveness of electricity and natural gas production and use"; and to conserve "expensive resources, particularly petroleum fuels" reflects this understanding of conservation. Section 366.81, Florida Statutes.

However, as the testimony by Witness Bakke indicates, there is a recognition in the industry that cogeneration does not "conserve" fuel in the traditional sense, it merely utilizes fuel to "deliver a service at the least cost." In some instances the fuel efficiency of a cogeneration unit will be the factor that makes a cogeneration project a cost-effective means of producing power, but that is not necessarily the case. The price of the electricity produced by a cogeneration unit could be lower than of comparable noncogeneration units simply because the sales price of the steam produced by the QF and sold to the steam host is high and produces a great deal of profit. That being the case, conservation and other demand-side alternatives as envisioned by FEECA, are not germaine to qualifying facility need determinations.

Other jurisdictional matters

At hearing and in its brief, AES argued that the Commission should properly consider the following facts in reaching its decision in this need determination: displacement of oil currently used by the paper mill; significant reduction in the emission of pollutants (SO , NOx, particulates, TRS) associated with the production of paper products at the paper mill; minimal land use impacts; creation and retention of jobs in the Jacksonville area; introduction into Florida of a "clean coal" technology without direct risk to ratepayers; and reduction of the thermal impact on the St. Johns River.

> Conversely, the Citizens Group stated at the hearing that the environmental impacts of the project were not all beneficial and questioned the size and type of plant which AES proposes to construct. To the extent that these matters are not discussed above, we find that they are outside the jurisdiction of this Commission as set forth in Sections 403.501-517 and 403.519, Florida Statutes, and not properly considered in this proceeding.

Petitioners' Exhibit No. 7. The PSC assumed the applicants would use the fuels they had proposed, but proof the applicants themselves put on at the certification hearing showed that Seminole Kraft might shut down its pulping operation at the mill, rendering bark unavailable as fuel. Nor was the PSC able, in evaluating cost-effectiveness before the certification hearing, to know the cost of all necessary pollution control technology.

After the land use hearing held on petitioners' application in Jacksonville, on February 14, 1989, and subsequent entry of an agreed recommended order, the Governor and Cabinet, sitting as the Siting Board, entered an order on June 27, 1989, determining that the proposed Cedar Bay Cogeneration Project would be in compliance with the City of Jacksonville's land use plans and zoning ordinances. (AES Exhibit No. 8, Final Order, P.1)

After the certification hearing held on February 5, 6, 7, 20 and 21, 1990, the original recommended order was entered on May 29, 1990. The original recommended order contained these findings of fact, among others:

Water Quality; Effects from Dewatering

> 21. The proposed site (T.844, 845) lies on the bank of the Broward River shortly before its confluence with the St. Johns. The water table is approximately five feet below existing grade. Beneath the water table zone, which extends to a depth of approximately 25 feet, are a more finely grained semi-confining bed and, underneath that, a limestone unit extending to a depth of approximately 70 feet. Approximately 300 feet thick, the Hawthorn formation underlies the surficial aquifer, separating it from the

Floridan.

22. Drawing down the water table is a normal construction technique in Florida, (T.847), although there are other techniques, such as slurry wall construction. (T.848, 873) Dewatering for construction of the coal car unloading facility, the circulating water pump house and piping to connect the pump house to the main power block (T.845-847) will last no longer than two years. (DER Exhibit No. A, Proposed Conditions, Section III, A 14)

23. In order to determine how much water would have to be pumped, the applicants performed certain permeability tests (T.848-850) across Eastport Road from the site, and grain size tests on samples taken on site. (T.873) Inferences from grain size analysis regarding permeability vary in accuracy, but the applicants assumed the highest conductivity any of the grain size tests suggested, .0076 centimeters per second. (T.849, 850)

24. The soil's permeability determines how fast water would fill the excavation, unless removed; and, therefore, if water is continuously removed, the extent to which groundwater nearby would be drawn down. (T.850) This is of particular importance because of groundwater contamination, demonstrated and suspected, under the site and nearby. (T.850-851) A condition of certification jointly drafted by AES Cedar Bay and the City of Jacksonville provides a protocol for monitoring, and, if necessary, treating the water to remove these materials. AES Cedar Bay has agreed to be bound by this condition. (T.884-887, 1137-1144, 1242)

25. Three decommissioned underground storage tanks are located in the area, two diesel fuel tanks and one used for a heavier oil. Apparent leaks in the diesel tanks have been reported to the Department of Environmental Regulation pursuant to the Early Detection and Incentive (EDI) program under Chapter 376, F.S. (T.864) Near both

diesel tanks, free product has been found floating on top of the ground water. No free product associated with the heavy fuel oil tank has been discovered. Heavy fuel oil is so viscous that it requires heating even to pump it out of a tank. (T.863)

26. AES Cedar Bay has agreed to clean up the free product near the closer diesel tank, looking to DER's EDI program for reimbursement. After removing floating oil, the applicants will remove dissolved hydrocarbons from groundwater in the area (T.865-866) by pumping and routing it to an "air stripper," where air blown through the water would "strip off" hydrocarbons. AES Cedar Bay proposes to follow DER rules regarding the evaluation and clean up of petroleum contamination near the closer diesel storage tank, and can accomplish the clean up without discharging petroleum to surface waters. (T.866)

27. The applicants do not propose to remedy groundwater pollution from the more distant diesel fuel tank because it is unclear whether groundwater contaminated by petroleum from that tank would reach the dewatering pumps. Instead, they propose to place wells down gradient from the second tank to determine the extent of contamination and to monitor groundwater levels. Only if dewatering activities result in a draw down of six inches below ambient levels, does AES Cedar Bay propose to perform the same type of clean up as it proposes for groundwater contaminated by the nearer tank. Equipment will be present on site to perform this work if necessary. (T.866-868) Other potential areas of contamination which were identified (T.1176-1184) will be monitored and appropriate remedial action will be taken if necessary. (DER Exhibit No. A, Proposed Conditions, Section XXVIII)

28. AES Cedar Bay will treat "dewatering effluent" before mixing it with the once-through Broward River water. (T.910) Primary parameters of concern include aluminum, iron, lead, phenols, and turbidity. (T.902)

Copper also contaminates groundwater in the vicinity of the proposed excavation. AES has agreed to remove enough copper to reduce the concentration to or below .046 mg/1, before discharging into the once through cooling system. (T.932)

29. AES Cedar Bay proposes to use the best available treatment technology for removing copper, (T.917, 1220) which would also constitute the best practical treatment under state and federal requirements. (T.1220, 1221) The strategy is to "minimize [copper's] solubility, and absorb the copper upon the solid material . . . recirculating in the system." (T.1225) AES Cedar Bay will perform bench tests to determine optimum feed rates for treatment chemicals. (T.910, 917-918)

30. "The theoretical solubility for copper [can be dropped to] .001" (T.1227) milligrams per liter, by changing the pH of the solution. Although this theoretical limit will not be reached, and the applicants do not intend to try to attain Class III water quality standards, "given enough money, pretty much anything is possible." (T.122l) The engineer responsible for designing the system is "hopeful to get better removal" (T. 1224) than what will be needed to reach the promised .046 milligrams per liter. During development of the treatment system, if another, more efficacious method becomes available at or below the approximate cost of the system AES has proposed, AES is to employ it. (T.1232)

31. Treatment for copper will remove other heavy metals in the effluent as well. (T.918) After treatment, AES Cedar Bay will discharge water from the dewatering process to the St. Johns River. Seminole Kraft's once-through cooling water pipe deposits wastewater directly in the St. Johns shipping channel, where the current is more rapid than in the Broward River, and than closer to shore. (T.905-906, 910) The bottom of the Broward River is mostly organic silt, whereas the St. Johns River ship channel is

relatively scoured with hard bottom material (T.969) and more tidal movement. (T.970) This reduces the possibility that metals may become tied up in organic bottom sediment, (T.975) and also provides a more direct route to the ocean. (T.987)

32. After treatment and dilution in the existing Seminole Kraft cooling outfall, copper concentrations will still exceed Class III standards, but will be below natural background conditions in the St. Johns River at the point of discharge, and will be below applicable acute toxicity concentrations. (T.932) Concentrations of other metals will be within Class III standards. (T.918-919) DER has recommended a two year variance for copper. (T.414-418) Class III standards for phenols will be met subsequent to dilution in a mixing zone in the St. Johns River (T.918, 919)

33. Heavy metals discharged in dewatering the AES site will remain, for the most part, in the estuary. (T.1064) While metal concentrations in the discharge will not exceed acute toxicity values (T.1066), metals such as copper and lead, in the concentrations anticipated, have detrimental, long-term effects on aquatic biota. (T.1067-1069) The discharge of the AES dewatering effluent will do nothing to improve the water quality of the St. Johns River, and will contribute to an already serious problem. (T.1073-1074)

34. The SJRWMD reviewed the applicant's proposed dewatering consumptive use (T.504) and found the amount of water proposed for withdrawal reasonable in the circumstances. (T.505) The SJRWMD also found that there would be no adverse impacts to existing legal users as a result of dewatering. (T.506)

With respect to consumptive uses of groundwater the original recommended order reported the following:

13. At least initially, the plan is to use millions of gallons of groundwater a day for cooling. Cooling water pumped through the

power plant condenser will flow from the condenser to the top of and down through the cooling tower. The cooling tower can be smaller than a natural draft tower, because fans will create a steady flow of air. (AES Exhibit No. 6, SCA P.8-3) Part of the water evaporates and part flows to the cooling tower base to be used again for cooling. (T.362) In this open recirculating cooling system (T.363) constant evaporation of water in the cooling tower requires introduction of additional water or "makeup." (T.364)

14. Because the system is recirculating, dissolved solids tend to build up in the water, so that a portion of the recirculating water must be discharged as "blow-down." (T.365) Concentrations will increase about 4.5 times between "blow-downs." (AES Exhibit No. 6, SCA P.3-33) Average blow-down will be approximately 900,000 gallons per day. (T.366) Approximately 4 million gallons of water per day from the Floridan Aquifer are to be used for cooling tower makeup, when operations begin. (T.360)

Consumptive Use of Groundwater

61. The applicants seek authorization to withdraw an average of 5.4 million gallons of groundwater a day from the Floridan Aquifer, not to exceed seven million gallons on any given day, using Seminole Kraft's existing well field. (T.300; AES Exhibit No. 6, SCA Figure 3.5-1) Seminole Kraft's six existing wells, as deep as 1,290 feet, draw from both the upper and middle water bearing zones of the Floridan Aquifer, (T.292) zones which are separated by a semi-confining unit. Seminole Kraft is already permitted to withdraw a daily maximum of 25 million gallons a day (mgd), and actually uses a daily average of 19.5 mgd.

62. The project will use water pumped from the Floridan aquifer as makeup for the plant cooling system, as makeup for the steam or power generation system, as service water, and for potable purposes. (T.359) The

proposed average withdrawal of 5.44 mgd will suffice to meet the cooling system requirements (4 mgd) and other needs on an average day. (T.361) Because high evaporation rates or other transient conditions may require additional water, (T.360, 361) the applicants propose a maximum of 7 million gallons on any one day. (T.362) The plant has been designed to keep water requirements down. The cooling system recycles water and boiler blow-down is used as makeup for the cooling tower. (T.368)

63. Water used for power generation must be of a very high quality or problems develop in the power production equipment; water produced by the Floridan aquifer is appropriate for this use. But water of lower quality, including reclaimed water, can be used as cooling tower makeup, if available. Using reclaimed water, rather than ground water, for cooling conserves limited water resources. (T.259; 491). The SJRWMD deems using ground water for power production and potable purposes reasonable (T.485, 486) and the quantities requested necessary for economic and efficient utilization. (T.486) Since reclaimed water may not be available initially, the use of ground water for cooling tower makeup is reasonable for an interim period. (T.493).

64. As an aid to predicting the effects of the proposed withdrawals, AES Cedar Bay submitted results of a groundwater investigation to the St. Johns River Water Management District. (T.294) The report included data from pump testing and flow meter testing on the Seminole Kraft wells, geophysical testing to determine thicknesses of various geological formations, samples derived from wells in the surrounding area, data obtained from the U.S. Geological Survey, (T.295) and data obtained from the St. Johns River Water Management District and the City of Jacksonville Bio-Environmental Services Division. (T.296)

65. Two computer models predicted effects on groundwater: a mod-flow or aquifer model,

and an MOC or solute transport model. (T.299) After calibration by reference to existing conditions, each model was run three times: first, to predict the effects of the presently permitted Seminole Kraft average withdrawals; second, to predict the combined effects of the average Seminole Kraft withdrawals and of the average withdrawals the applicants propose; third to predict the combined effects of maximum permitted and of maximum proposed withdrawals. (T.299)

66. The aquifer modeling predicted no change in piezometric levels attributable to the presently permitted Seminole Kraft withdrawals, even if continued over a period of 40 years. (T.314) But, when the model assumed average withdrawals of 25 mgd (Seminole Kraft's historical average plus the average the applicants propose), (T.315) the model predicted a drop in the piezometric surface, a "drawdown" in the area. No wells were identified which would lose artesian pressure as a result of the drawdown, but artesian pressure would decrease near the site. (T.319) Any pump close to the existing piezometric surface might have to be lowered, (T.316, 317) but no well in the vicinity would be rendered unusable.

67. The SJRWMD has declared a Phase I Water Shortage in the Jacksonville area because of the drought in the northern part of the District. Rainfall is below normal, and some wells have reached all-time lows. (T.509-510) The SJRWMD has asked residents to conserve water. Many who testified has done so, by adopting such measures as putting bricks in toilet tanks, and turning the water off while brushing their teeth. But the SJRWMD has not declared a moratorium on new consumptive uses of groundwater. (T.573) The applicants have agreed to "mitigate" any problems created by the withdrawals. (T.349)

68. The solute transport model predicted effects withdrawals would have on chloride or saltwater intrusion over a 40-year period. (T.321, 322) Near the site, concentrations of chloride in groundwater in the Floridan's

middle and upper water bearing zones currently fall in the range of 35 to 40 milligrams per liter (mg/1), well below the 250 mg/l limit for potable drinking water. (T.332) Modeling performed for Blount Island predicted that the maximum, combined withdrawals would increase chloride concentrations in ground water there a maximum of about five mg/1 above existing levels of 167 mg/1. No change in chloride levels was indicated by modeling for Fort George Island. (T.341)

69. Modeling indicated that existing Seminole Kraft withdrawals would eventually raise chloride concentrations under the site by approximately five or six mg/1. (T.335) Modeling for average combined withdrawals indicated an average increase in chlorides of six mg/1 and a maximum increase of eight to ten mg/1. (T.336, 337) Modeling for the maximum combined withdrawals predicted the same increase in average chloride concentrations, and an increase in maximum chloride concentrations of eleven or twelve mg/1. (T.338)

Four MGD For How Many Days?

70. Although reclaimed water is not currently available on the proposed project site, it should become available in the near future. (T.492, 544, SJRWMD Ex. 2). The life of the facility is approximately 30 years. (T.590). Some source of water having a quality lower than what the Floridan aquifer's upper and middle water bearing zones yield must be utilized for cooling tower makeup within the first few years of operation, if the use is to meet the consumptive use statutory tests. (T.565-66).

71. The applicants, SJRWMD, and Jacksonville have stipulated to a condition of certification governing the proposed facilities' future reuse of reclaimed water from Jacksonville for cooling tower makeup. (Stipulated Condition xxv, infra; SJRWMD Ex. 1, Amended Condition #17; Supplemental

Prehearing Stipulation, par. 7(a)); T. 380; 600-01; 621-22). The stipulated condition requires that the facility be designed with the capability of reusing treated wastewater as cooling tower makeup. The applicants have agreed to use reclaimed water in the cooling tower and elsewhere, where appropriate, if Jacksonville delivers reclaimed water to the site, provided phosphorus has been reduced to unspecified "acceptable" levels, so long as such reuse does not render blowdown or other discharges unpermittable, (T.376, 493; 670), and provided such reuse is "financially practicable."

72. The consumptive use permit that SJRWMD has granted the City of Jacksonville requires the City to reuse specified volumes of reclaimed water by a date certain. (T.492, 543-544). This permit condition reflects the state water policy of attempting to match the type of use with water of the lowest suitable quality available. (T.490-91). Under this requirement, treated effluent from Jacksonville's domestic wastewater treatment plants is viewed as a valuable supply of water which has the potential of being put to a beneficial use. (T.491)

73. Seminole Kraft's current operations result in several million gallons of wastewater daily, but nobody has advocated the use of this water for cooling. Reclaiming wastewater from a pulping operation may not make economic sense. But, at least if Seminole Kraft closes down its pulping operation as contemplated, wastewater from its own operations is another potential source of reclaimable water.

74. The parties have stipulated to a condition of certification requiring the applicant to submit data for DER's review periodically. This review can result in a modification of conditions. (T.468) A power plant certified under the FEPPSA must comply with later adopted rules of the Department. (T.469)

75. The SJRWMD proposes a condition limiting duration of the consumptive use

> certification to seven years. (District's Exhibit No. 1, Amendment to conditions P-1, Condition 9) The consumptive use duration limitation has never been raised in the three previous power plant certifications which have occurred within the SJRWMD, because there was no consumptive use permitting program or rule in effect in the area where they were proposed. (T.539-40). Indeed, there is no evidence of the issue having been raised in any power plant site certification in the state. (T.474-74). DER has explicitly taken a position of neutrality on the issue of consumptive use duration in this case. (T455-56).

The Governor and Cabinet sitting as the Electrical Power Plant Siting Board considered the original recommended order at its meeting of August 14, 1990. In its written order of remand dated August 24, 1990, the Siting Board specified the issues stated above, on page three of the supplemental recommended order, for consideration on remand. The wisdom of the Siting Board's decision to remand for further proceedings became apparent even before proceedings on remand formally convened. As a result of the Siting Board's order, the applicants made several changes in their application which should reduce adverse environmental consequences, if the proposed power plant is built. Appendix B, attached, sets out verbatim modifications to conditions III.A.12, III.A.13, III.A.14, IV.C, V.D., XXI and XXV, to which, with the exceptions noted, all parties agree. One party or another contends that proof of these modifications, together with other evidence adduced on remand, requires changes in all of the original recommended order's findings of fact quoted above, except findings Nos. 21, 25, 26, 27, 65, 66, 68, 69, 72, 74 and 75.

SUPPLEMENTAL FINDINGS OF FACT

1. As far as the evidence showed, petitioners never analyzed the costs of a natural gas facility as compared to those of a coal-fired facility. According to uncontroverted testimony, however, natural gas is not commercially available in the quantities necessary to fire the plant. If fueled by natural gas, instead of by coal as proposed, the Cedar Bay Cogeneration Project would require 50 million cubic feet of natural gas per day, on a firm basis.

Natural Gas Availability

2. The Florida Gas Transmission system, a branch of which (the "Brooker lateral") serves People's Gas System, the only local distribution company in Jacksonville, (RT.60) has no transmission capacity not already fully allocated to existing users. Among Florida Gas Transmission Company's customers are other power plants, including some operated by Jacksonville Electric Authority.

3. Florida has "roughly 6,000 megawatts of power [generating capacity] that is primarily gas fired . . . [and] another 5,000 megawatts of power [generating capacity] that uses natural gas as a secondary fuel." RT.62. It would take more than "the entire capacity of the Florida Gas Transmission system to move . . . the fuel required to generate . . . 6,000 megawatts." Id. Jacksonville Electric Authority buys natural gas on an interruptible basis, because it has been unable to obtain a commitment to a constant or "firm" supply.

4. The Florida Gas Transmission Company has plans to expand its transmission capacity by 100 million cubic feet a day to a total of 925 million cubic feet a day in 1991 or early 1992. But allocation of the increase -- an issue in obtaining approval from the FERC -- has already been accomplished, and the expansion will make no firm capacity available to new users. Talk of another expansion has already begun, but so far the company has done little more than collect questionnaires (which suggest demand for double the existing service.)

5. At one time, liquefied natural gas came from Algeria to Elba Island near Savannah, Georgia, by ship. A 20- inch pipeline connects the terminal with the Sonat system on the mainland. But no Sonat pipeline comes within some 150 miles of Jacksonville, and shipments of liquefied natural gas to Elba Island ceased with the decline of oil prices after the mid-l970s.

6. At present, the Florida Gas Transmission Company has a monopoly in Jacksonville and peninsular Florida. But `a system. in southern Georgia "called Mobile Bay" (RT.77) has plans to extend a 12-inch pipeline from an existing line near Live Oak to Jacksonville. With respect to some or all of this planned capacity, "certain commitments have been made." RT.59. Under pressure, the proposed 12-inch pipeline could transmit over 40 million cubic feet of natural gas a day, but only if that much gas reached Live Oak, and "the South Georgia system is constrained during certain parts of the year," RT.59, as it is.

7. From the fact that a pipeline is to be constructed to bring less natural gas to Jacksonville than would be required to fuel the Cedar Bay project it might be inferred that the project itself would justify construction of a pipeline. But the opinion of petitioners' expert, Mr. Van Meter that natural gas is not an available or reasonable fuel for the Cedar Bay Cogeneration Project (RT.65, 74, 79) -- and would not have been even if natural gas had been planned for earlier -- went unrebutted. Likewise unrebutted was the testimony of another of petitioners' experts that, from an economic standpoint, "Base load power plants['] most desirable fuels would be coal and nuclear." RT. 103.

Construction Dewatering

8. The applicants have modified their dewatering plan, and now propose new construction techniques for the railcar unloading facility; sequential installation of underground pipes; sequential excavation of pump pits; and an advanced effluent treatment system. (RT. 147, 149-52, 171-76, 178, 185-92; AES Ex. 4R) A cofferdam or groundwater barrier encircling the railcar unloading area would drastically reduce the amount of groundwater seeping into the excavation during construction. (RT. 173; AES Ex. 4R, 7R). Sheet piling is to be driven into perimeter trenches filled with bentonite cement. (RT. 174-75; AES Ex. 4R, 7R, 8R). Using a jet grouting technique, a five- to ten-foot thick seal would be created underneath the planned excavation. (RT. 175-76; AES Ex. 4R, 7R, 9R). Steel tie-back rods would strengthen the cofferdam, and a pump would move seepage to the surface from a sump designed to collect groundwater seeping through the cofferdam and up through the grout into the excavation. (RT. 176-77; AES Ex. 4R, 7R)

9. The modified construction techniques now proposed would reduce maximum groundwater drawdown outside the cofferdam from approximately the 30 feet below grade originally contemplated to a currently anticipated level of approximately 5.5 feet below grade. (RT. 279; AES Ex. 10R).

10. Excavations to install circulating water piping and to create pits to house runoff pumps would be scheduled to keep down the volume of dewatering effluent at any given time. (RT. 178-79, AES Ex. 4R) Installing a cofferdam, jetting in grauting, and sequencing construction, as now proposed, would reduce dewatering effluent flows from the 1000 to 2000 gallons per minute originally contemplated to no more than 200 gallons per minute. (RT. 180, 185; AES Ex. 4R, pp. 1 and 2)

11. In another modification, the applicants now propose an advanced treatment system to improve the quality of (a diminished quantity of) dewatering effluent, prior to its introduction into Seminole Kraft's cooling water system. The proposed treatment system would employ as many as five treatment technologies, if needed, to ensure that cooling water system discharges to the St. Johns River containing dewatering effluent would meet Class III water quality standards. Equipment necessary to bring each technology to bear would be on site and available for use before dewatering began. (RT. 151, 185, 193, 196; AES Ex. 4R)

12. Mixing dewatering effluent with lime would remove dissolved metals from solution. Then a clarifier would precipitate and separate solids. These first two stages of the treatment process now proposed comprise the whole of the treatment process originally proposed. (RT. 149-50, 185-68; AES Ex. 4R)

13. Additional treatment, as needed, would include sand filtering, to eliminate the need for any turbidity mixing zone (RT. 151, 190, 198, 201; AES Ex. 4R); using a carbon filter to remove organic compounds (and some heavy metals), obviating the need for a phenol mixing zone (RT. 190-191, 198, 201; AES Ex. 4R); and, finally, selective ion exchange, to provide additional metals removal, if needed. (RT. 151, 191, 201-02; AES Ex. 4R)

14. The applicants are to ascertain and report the quality of effluent as long as dewatering takes place. They must use a composite sampling method once a week for the first month. Thereafter they may use a single "grab" sample, but must continue assessing effluent quality once a week until dewatering ceases. The proposed monitoring program must be capable of detecting whether water quality standards are being met. (RT. 166, 195, 321-22; AES Ex. 4R).

15. The applicants' modified dewatering plan is an environmental improvement over the previous plan and would ensure compliance with water quality standards. (RT. 193, 196, 261) DER has recommended and the applicants have agreed to accept modified Conditions III.A.12. (Construction dewatering), III.A.13 (Mixing Zones), and III.A.14. (Variances to Water Quality Standards). (RT. 152; AES Ex. SR as modified by the Joint Recommended Order filed November 1990).

16. Based upon the applicants' modified dewatering plan, a reasonable allocation of water for construction dewatering is a maximum daily withdrawal not to exceed .288 million gallons.

Modified Condition V.D. is reasonable and the applicants accept its terms. (RT. 254, 294-295; SJRWMD Ex. IR)

Water for Cooling Purposes

17. The applicants now propose to use either reclaimed water or river water for cooling, to the extent practicable, in an effort to avoid using groundwater as the permanent, primary source of cooling water. September drought conditions caused record low readings for the Floridan aquifer at 23 monitoring wells in the northern part of the St. Johns River Water Management "District, including wells in Duval County." RT. 248. The original proposal called for withdrawing four million gallons of water a day from the Floridan aquifer for cooling, when power generation begins.

18. Under the modified proposal, groundwater would still be used as makeup for the steam or power generation system, as service water, and for potable purposes, but (except in emergencies) not for cooling, assuming the applicants obtain the regulatory approval they would be obliged to seek. The applicants have agreed to accept modified Condition XXV (Use of Water for Cooling Purposes). (RT. 155-158, 204-208; AES Ex. 6R, 12R, 13R)

19. Condition IV.C. has been modified to reflect the reduced withdrawal of groundwater that would be necessary if groundwater is not used for cooling. For the next seven years, a maximum annual withdrawal from the Floridan aquifer for non-cooling uses of no more than 530.7 million gallons and a maximum daily withdrawal of no more than 1.45 million gallons represent amounts that are considered reasonably necessary and efficient.

20. Unless the City of Jacksonville has agreed, on or before December 1, 1990, to supply reclaimed water for cooling, the applicants will redesign the cooling system so that river water can be used for cooling. Salt in the Broward and St. Johns rivers requires the use of highly corrosion-resistant materials for certain system components. Constructing these system components with such materials would enable the cooling system to use river water, reclaimed water from the City, or Seminole Kraft wastewater. (RT. 155-56, 159-60, 216-17; AES Ex. 6R).

21. If river water is used, existing Seminole Kraft intake and discharge structures would be utilized. In order to reduce ill effects on aquatic organisms, the applicants would install screening and filter systems upstream of the pumps. Brackish river water must be changed or "cycled" more often than groundwater, lest evaporation cause scaling that would clog the system. The

volume of river water required for cooling tower makeup is estimated at approximately 14 million gallons per day. Because cooling with river water would require more water, the applicants propose to increase piping and valve sizes for the cooling system. (RT. 155-57, 168, 215-16, 219-20; AES Ex. 6R)

22. Modified Condition XXV specifies a procedure for amending site certification to require use of one of two primary cooling water sources: reclaimed water from the City or surface water from the Broward or St. Johns rivers. The applicants have agreed to apply within six months for modifications concerning design and operation of the plant cooling system. The application must contain information necessary to demonstrate that operation of the cooling system without using groundwater as the primary cooling water source would comply with all relevant non-procedural agency standards or qualify for a variance. The application must also detail the reasons for selection of one requested source over other possible sources. There would be no delegation to DER's Secretary for determinations under Condition XXV. Final authority to render determinations under Condition XXV would remain with the Siting Board. (RT. 207, 269; SJRWMD Ex. 2R)

23. As drafted by the parties, modified proposed Condition xxv provides that groundwater may be utilized for cooling only in the event that neither river water nor reclaimed water from the City of Jacksonville obtains necessary environmental approvals of the preferred primary cooling sources are denied on the grounds of unavailability, or environmental or economic impracticability, as set forth in the condition. (RT. 207, 228-30; AES Ex. 12R)

24. The applicants modified cooling system plans and modified Condition XXV, as drafted by the parties, are designed to ensure that the cooling system will use either river water or reclaimed water, to the extent it is economically and environmentally practicable. Use of either of these sources for this proposed cooling facility is viewed by the SJRWMD as equally appropriate to fulfill its conservation and reuse standards and the state water policy, which require consumptive users to utilize, to the extent practicable, the lowest quality water suitable for the proposed use. (RT. 242-43, 299-300)

25. The applicants have stipulated that it is economically feasible and practicable for them to pay $.18-1/2 per thousand gallons for reclaimed water without phosphorous treatment or $.22 per thousand gallons for treated reclaimed water, unless expenditures have already been made to construct the cooling system to utilize river water. They also stipulated that the

river water cooling option is economically feasible and practicable, if the facility is authorized to operate with the same type of cooling tower discharge operation variances granted to the St. Johns River Power Park. (RT. 206, 218, 245, 295j AES Ex. 12R)

26. The St. Johns River Power Park, a power plant in Duval County which was certified under the Florida Electrical Power Plant Siting Act, utilizes river water for cooling tower makeup and discharges its cooling tower blowdown into the St. Johns River. When river water is used for cooling, evaporation increases concentrations of pollutants already in the river. The St. Johns River Power Park's certification conditions include variances from Class III water quality standards which allow the facility to operate its cooling system with river water. These variances have been granted for two-year periods, with the permittee being required to obtain variance renewals every two years in order to continue operation of the cooling system. (RT. 206, 218-19, 288-89). Salt drift as well as concentrations of pollutants in the blowdown are being assessed. RT. 284.

27. Use of Seminole Kraft's current wastewater is not mentioned in modified Condition XXV, as drafted by the parties. By the time the Cedar Bay cogeneration facility needs cooling water, the Seminole Kraft plant may have become a cardboard recycling facility, which would discharge a different and potentially more useful wastewater than is currently being discharged by Seminole Kraft. The precise quality of any such future effluent cannot be predicted with a high degree of certainty at this time. (RT. 222-23, 238-43) But the applicants should "evaluate the practicability under [SJRWMD] rules of utilizing Seminole Kraft wastewater . . . [using] the best information . . . available," (RT. 243) during the post-certification proceeding new Condition XXV calls for, at least if reclaimed water is unavailable from the City of Jacksonville.

28. If a primary source of cooling water other than groundwater proves unavailable or environmentally or economically impractical, as set out in modified Condition XXV, a maximum annual withdrawal from the Floridan aquifer for all facility uses not to exceed 1,990 million gallons and a maximum daily withdrawal not to exceed seven million gallons are reasonable for a period of seven years. (RT. 211,12, 296-97; AES Ex. 14R)

29. In the event groundwater became the primary cooling source, proposed Condition xxv would require the applicants to implement their groundwater mitigation plan. (RT. 207, 229-30;

AES Ex. 12R). Under this plan, the applicants would fund a free-flowing well inventory in Duval County. Additionally, they would provide a contribution of $380,000 per year for plugging free-flowing wells to reduce discharges from these wells by seven million gallons a day, if discharges of such magnitude are found. Thereafter, the applicants' annual contributions, which are to continue as long as groundwater is used for cooling, would fund a water conservation and reuse grants program in Duval County. The plan represents not only a water conservation measure but also serves as an economic incentive to the applicants to pursue necessary approvals for use of another primary cooling water source.

Overall Evaluation

30. Hamilton S. Oven, Jr. testified without contradiction that the project as now proposed "would produce minimal adverse effects on human health . . . the environment the ecology of the land and its wildlife . . . [and] the ecology of state waters and their aquatic life." RT.277. He also testified that the applicants' proposal would comply "with relevant agency standards." (RT.273) (although the evidence showed variances would be needed for cooling tower blowdown, at least if reclaimed water is not used.) Mr. Oven explained that he used permitting agencies' "criteria as a measuring stick to show compliance and to try to produce the minimal adverse impacts as allowed by regulatory policy." RT.274.

31. Like Mr. Oven, Stephen Smallwood, Director of DER's Division of Air Resources Management interprets "minimal" as used in the Florida Electric Power Plant Siting Act to mean "minimal with respect to the standards of the agencies." DER's Exhibit No. 2R, P. 11. Otherwise, he explained, "[Y]ou'd have to perhaps conclude . . . that you couldn't license any coal-fired units [. T]hey'd either all have to be natural-gas fired or . . . nuclear or . . . solar." Id.

32. DER staff concluded that the proposed Cedar Bay Cogeneration Project effects a reasonable balance between the need for the project and the environmental impacts associated with the project. On this basis, DER recommended that the project be certified subject to recommended conditions of certification.

CONCLUSIONS OF LAW

33. By order of remand entered August 24, 1990, the Governor and Cabinet sitting as the Florida Electrical Power Plant Siting

Board "remanded to the Hearing Officer for the conduct of further proceedings." No party has questioned the hearing officer's jurisdiction on remand. In a telephone conference call on August 30, 1990, counsel for petitioners, respondent, the City of Jacksonville, Jacksonville Electric Authority and St. Johns River Water Management District expressly acquiesced in the Siting Board's order of remand.

34. Two of the three issues the order of remand specified for consideration on remand pertain to particular, adverse environmental effects contemplated by petitioners' original proposal, while the first issue stated in the order of remand raises broader questions, including whether the project "effects a reasonable balance between the need for the facility and the environmental impact resulting from construction and operation." Order of Remand, P. 2.

35. Specifically, the Siting Board's order of remand raised the question "[w]hether there are other available and reasonable methods to treat or mitigate any adverse effects of copper concentrations contained in the proposed dewatering discharge." As set out in detail in the findings of fact in the supplemental recommended order, petitioners have modified their proposal, in response to the Siting Board's concerns, so as both to decrease the volume of the dewatering discharge and to treat the (diminished) discharge by other and additional methods. As a result, the concentration of copper in the dewatering discharge will be significantly less than if the project had proceeded as originally proposed. Before reaching the river, the discharge will be diluted so that copper in the effluent will fall below not only ambient levels but also within DER's water quality criteria for Class III waters.

Consumptive Use

36. The order of remand identifies groundwater's being the primary source of cooling water as another specific area of environmental concern. In response to this concern, petitioners have sought to "demonstrate a commitment to use some source other than groundwater," without actually agreeing to do so. Under procedures on which all parties have agreed, the question would be pretermitted until after site certification. Petitioners have undertaken to apply for an amendment to the Siting Board's order certifying the site, in an effort to obtain permission to use either river water or water reclaimed by the City of Jacksonville, instead of groundwater, for cooling.

37. At the time of the hearing on remand, reclaimed water was not available from the City of Jacksonville. Nor did there seem to be much prospect that necessary mains and other equipment would be installed in the near future. Although not as part of a draft condition, the applicants indicated a willingness at the remand hearing to examine using wastewater from Seminole Kraft as cooling water. According to evidence adduced at the original hearing, Seminole Kraft uses approximately 20 million gallons of groundwater a day in its operations. The modifications already planned for the cooling system should solve some of the technical problems that using reclaimed Seminole Kraft wastewater would entail. If Seminole Kraft closes down its pulping operation and turns to recycled cardboard instead, the quality of its wastewater may improve enough so that it can be reclaimed for use as cooling water, even if the wastewater it now produces cannot be salvaged.

38. Using reclaimed water for cooling would be environmentally preferable to taking water from the river, which poses a threat to certain aquatic life and (depending on the quality of reclaimed water) can result in a greater volume of less desirable blowdown being returned to the river. But taking river water for cooling is apparently less expensive than using reclaimed water. Whether the difference in cost justifies using river water would be decided in the post-certification amendment proceeding.

39. Groundwater is the least expensive source of cooling water considered for the Cedar Bay Cogeneration plant. Petitioners have agreed, however, to abide by conditions that include significant financial incentives to use another primary, permanent source for cooling water. The Siting Board has no guarantee that groundwater will not be used for cooling purposes, but, if the recommended conditions are adopted, the Siting Board does have reasonable assurances that the petitioners will proceed in good faith in an effort to use another primary source of cooling water.

40. The moneys petitioners would have to pay if they did not obtain approval of a source of cooling water other than groundwater are to be used to conserve groundwater resources elsewhere in Duval County. The City faults "the mitigation plan [because it] does not require that the well-plugging . . . result in saving aquifer water in an amount equal to the proposed AES uses." Proposed Recommended Order of the City of Jacksonville and Jacksonville Electric Authority, pp. 3 and 4. On the other hand, the mitigation plan is a distinct improvement over the original proposal to withdraw groundwater without any effort to mitigate the effects.

On remand the SJRWMD again argues that no consumptive use of groundwater should be authorized for more than seven years; and none should be for the reasons explicated in the original recommended order. The post-certification proceeding contemplated by modified Condition XXV is likely to preclude the use of groundwater for cooling, in any event. Reclaimed water may become available even for non-cooling purposes before seven years have elapsed, and the issue should be revisited no later than seven years hence.

Certification Criteria

Although the applicants have favored the hearing officer with an extensive "memorandum of law concerning the standards for certifying power plants and understanding the PSC need determination," not to mention the same parties' "addendum to memorandum of law concerning the standards for certifying power plants and understanding the PSC need determination," the Siting Board's order of remand has already clearly established the criteria applicable in this case.

In addition to requiring that a judgment be made regarding a reasonable balance between the need for the proposed facility and its environmental impact, the Siting Board has directed that consideration be given both to the question whether "available and reasonable methods . . . will produce minimal adverse effects . . . based on the design of the project and choice of fuels" and to the question whether "the project complies with the standards of the deciding agencies."

With respect to air pollution, the evidence is clear that the project complies with the standards of the "deciding agency," i.e., DER, the agency with jurisdiction over air pollution that is a party to the certification proceeding. Under DER rules (which incorporate federal standards) petitioner's proposal is counted as a net benefit with regard to several parameters used to measure air quality. Whether petitioner's decision to burn coal in such proximity to urban populations "will produce minimal adverse effects on human health" is less clear. Minimal means "having the character of a minimum: constituting the least possible in size, number or degree: extremely minute." Webster's Third International Dictionary (1971)

SJRWMD conceded that the original proposal met the consumptive use criteria SJRWMD administers, at least for an initial seven-year period. As SJRWMD also concedes, the revised

proposal meets these standards, if anything, by a wider margin. But the final choice of cooling water will determine which of a range of possible effects on the river and the life it supports will in fact occur. Evidence so far suggests that any choice of cooling water may entail 30-year de facto variances from DER's water quality criteria. If so, the statutory "minimal adverse effects" standard may result in a less stringent standard for power plants than DER rules lay down for the general case.

Fairness to applicants who must show "minimal adverse effects" requires at the very least that agencies or third-party objectors contending that an application fails to meet this requirement plead and prove the factual basis for their contention. See Department of Transportation v. J.W.C. Co., 396 So.2d 778 (Fla. 1st DCA 1981) Here the objectors failed to prove that using natural gas (or even coal with lower sulfur content) constituted an "available and reasonable" alternate method of power production. (Of course, there was also a failure of proof regarding the nuclear or solar alternatives mentioned by Mr. Smallwood.)

The Siting Board must finally decide whether the project effects a reasonable balance between the need for the facility and its environmental impact. Petitioner points out that cogeneration projects are encouraged by state and federal law. But it may also be true that cogeneration projects, whether coal-fired or fueled by solid waste, pose particular environmental hazards, depending on their location and design.

The present project has much to recommend it, whatever the final decision regarding cooling water and the trade-offs that must entail. In view particularly of the net improvement in certain air quality aspects and the efficiency involved in using thermal energy for other purposes that might otherwise go unused, and in light of the fact that record evidence has not shown that any other "available and reasonable" methods of power generation would have less adverse effects on "air and water quality, fish and wildlife, and the water resources and other natural resources of the state," petitioners have met their burden to show the project strikes the reasonable balance the Florida Electric Power Plant Siting Act require.

RECOMMENDATION

It is, accordingly,

RECOMMENDED:

That the Siting Board certify the proposed site on the conditions recommended in the original recommended order, as modified by the parties' joint motion to correct and supplement conditions of certification dated July 31, 1990, and as modified by the proposed conditions set out in Appendix B.

DONE and ENTERED this 5th day of December, 1990, in Tallahassee, Leon County, Florida.

_____

ROBERT T. BENTON, II
Hearing Officer
Division of Administrative Hearings
The DeSoto Building
1230 Apalachee Parkway
Tallahassee, Florida 32399-1550
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Filed with the Clerk of the Division of Administrative Hearings this 5th day of December, 1990.

APPENDIX TO RECOMMENDED ORDER CASE NO. 88-5740

Petitioner's proposed findings of fact Nos. 1, 2, 5 through 10, 17 through 24, 26, 28 through 31, 36, 37, 38, 41 and 42 have been adopted, in substance, insofar as material.

Petitioners' proposed findings of fact Nos. 3 and 4 pertain to subordinate matters.

With respect to petitioners' proposed finding of fact No. 11, the evidence established that "no transmission capacity either now or in the foreseeable future would be available" only because decisions to construct such facilities have not yet been made, as far as the evidence showed.

Petitioners' proposed findings of fact Nos. 12 and 14 recite speculation.

With respect to petitioners' proposed finding of fact No. 13, the environmental consequences of laying another pipeline alongside the Brooker later were not shown to be significant.

With respect to petitioners' proposed finding of fact No. 15, the testimony ("AES Ex. 15R, at 11, 12") showed that economic factors favored natural gas over oil, JEA's alternative, in August. JEA's "Northside 3 was in service consistently during the month of August [till the last week], Northside 1 was not.

The fuel cost for residual oil was considerably higher than the fuel cost for natural gas." Petitioner's Exhibit No. 15R, p. 11. Northside 3 is gas-capable. Northside 1 uses oil only.

With respect to petitioners' proposed findings of fact Nos. 16, 39 and 40, the witnesses named gave the testimony reported.

With respect to petitioners' proposed findings of fact Nos. 25, 27 and 35, the "commitment" to use some source other than groundwater for cooling is conditioned on stated conditions.

With respect to petitioners' proposed findings of fact No. 32 and 33, failure to specify the source of cooling water prior to certification has no precedent, as far as the record in this case shows.

With respect to petitioners' proposed finding of fact No. 34, St. Johns River Water Management District took the position that consumptive use criteria were met, even without the condition.

SJRWMD's proposed findings of fact Nos. 1 through 15, 17, 18, 19 and 25 have been adopted, in substance, insofar as material.

With respect to SJRWMD's proposed findings of fact Nos. 16 and 24, modified condition XXV does not guarantee that another source would be used.

With respect to SJRWMD's proposed finding of fact No. 20, the version recommended by the supplemental recommended order requires that Seminole Kraft wastewater also be considered.

With respect to SJRWMD's proposed finding of fact No. 21, no analysis of wastewater currently produced was proven. It is not clear when the conversion to recycling is to occur or even that it will definitely take place.

With respect to SJRWMD's proposed finding of fact No. 22, "environmental approvals" are not likely to be denied on economic grounds.

With respect to SJRWMD's proposed finding of fact No. 23, the actual costs of using reclaimed water from the City were not proven.

With respect to SJRWMD's proposed findings of fact Nos. 26 through 30, whether "the facility must be on the same footing as other permitted consumptive users of water who must renew permits" is not a question of fact.

APPENDIX B III

12. Construction Dewatering

a. Discharge of construction dewatering to the SKC once-through cooling system from outfall serial number 005 shall be limited and monitored as specified below: Effluent Discharge Monitoring

Characteristic Limits Requirements

Instantaneous Measurement Sample

Maximum Frequency Type Flow - (MGD) .288 daily Totalizer

Turbidity (NTU) 29 1/week composite/grab

Aluminum mg/L 1.5 1/week composite/grab

Copper mg/L 0.015 1/week composite/grab

Iron mg/L 0.3 1/week composite/grab

Lead mg/L 0.05 1/week composite/grab

Mercury ug/l 0.1 1/week composite/grab

Phenol ug/l 1.0 1/week composite/grab

TSS mg/1 50.0 1/week composite/grab

pH 6.0-9.0 1/week composite/grab

Report N.D. if below detection limit, giving method used and detection limit. If the discharge limit is below the detection limit, then N.D. signifies compliance.

AES/CB shall take composite samples of dewatering effluent once a week for one month following the start of dewatering, then if no violations are found, grab samples may be taken for the remainder of dewatering.

AES Cedar Bay shall treat the construction dewatering discharge so as not to exceed the above effluent limits. AES/CB shall utilize the advanced treatment systems consisting of sand filter, carbon filter, and selective ion exchange, as shown in their letter of October 26, 1990, to Hamilton S. Oven, unless testing demonstrates that the above limits can be met without such treatment. Prior to discontinuing such treatment, AES/CB shall notify both DER and BESD, and provide them with an opportunity for consultation.

AES Cedar Bay shall do sufficient bench testing to demonstrate that it can meet the above limit for copper. AES Cedar Bay shall notify DER and BESD of the bench testing, and allow DER and BESD to be present if they so desire to observe the bench testing.

In addition, AES Cedar Bay shall determine the amount of treatment and removal provided for iron, aluminum and lead by the method of treatment selected for copper.

A report shall be submitted to DER and BESD summarizing the results of the bench testing of the proposed treatment technique.

b. Project discharge descriptions - Dewatering water, outfall 005, includes all surficial groundwater extracted during

all excavation construction on site for the purpose of installing structures, equipment, etc. discharges to the SKC once through cooling water system at a location to be depicted on an appropriate engineering drawing to be submitted to DER and BESD. Final discharge after treatment is to the St. Johns River. The permittee shall report to BESD the date that construction dewatering is expected to begin at least one week prior to the commencement of dewatering.

13. Mixing Zones - The discharge of the following pollutants shall not violate the Water Quality Standards of Chapter 17-3, FAC, beyond the edge of the designated instantaneous mixing zones as described herein. Such mixing zones shall apply when the St. Johns River is in compliance with the applicable water quality standard.

b. During operation of CBCP for the life of the facility:

Iron 125,600 m2 (31 acre) mixing zone
Chlorine 0 - not measurable in river
Temp 1,013 m2 (0.25 acre)
pH 1,013 m (0.25 acre)

14. Variance to Water Quality Standards - In accordance with the provisions of Section 403.201 and 403.511(2), F.S., permittees are hereby granted a variance to the water Quality Standard of Chapter 17-3.121, FAC for iron during operation.

Such variance shall apply only as the natural background level of the St. Johns River approach or exceed the standards. In any event, the discharge from the CBCP shall comply with the effluent limitations set forth in Paragraph III.A.12. At least 90 days prior to start of construction, AES shall submit a bioassay program to assess the toxicity of construction dewatering effluent to the DER for approval. Such program shall be approved prior to start of construction dewatering. IV.

C. Maximum Annual Withdrawals

Maximum annual withdrawals for AESCB from the Floridan aquifer for non-cooling uses must not exceed 530.7 million gallons, and maximum daily withdrawals from the Floridan aquifer for non-cooling uses for the AESCB must not exceed 1.45 million gallons. In the event that the preferred permanent primary cooling water source becomes temporarily unavailable, the maximum daily withdrawal from the Floridan Aquifer for AESCB must not exceed 7.0 million gallons. If, pursuant to Condition XXV, the preferred primary sources of cooling water are denied, maximum annual withdrawals from the Floridan aquifer must not exceed 1.99 billion gallons, and maximum daily withdrawals from the Floridan aquifer for the AESCB must not exceed 7.0 million gallons. The use of the Floridan aquifer potable water for control of fugitive

dust emissions is prohibited when alternatives are available, such as treated discharges, shallow aquifer wells, or stormwater. The use of Floridan aquifer potable water for the sole purpose of waste stream dilution is prohibited.

D. Construction Dewatering Effluent

Maximum daily withdrawals for dewatering for the construction of the railcar unloading facility must not exceed 0.288 million gallons.

Dewatering for the construction of the railcar unloading facility shall terminate no later than nine months from the start of dewatering.

Should the permittee's dewatering operation create shoaling in adjacent water bodies, the permittee is responsible for removing such shoaling.

All offsite discharges resulting from dewatering activities must be in compliance with water quality standards required by DER Chapters 17-3 and 17-4, F.A.C. XXI.

MODIFICATION OF CONDITIONS

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

A. The Board hereby delegates to the Secretary the authority to modify, after notice and opportunity for hearing, any conditions pertaining to consumptive use of water, reclaimed water, monitoring, sampling, ground water, surface water, mixing zones, or variances to water quality standards, zones of discharge, leachate control programs, effluent limitations, air emission limitations, fuel, or solid waste disposal, right of entry, railroad spur transmission line, access road, pipelines, or designation of agents for the purpose of enforcing the conditions of this certification. This delegation shall not apply to determinations pursuant to Condition XXV.

All other modifications shall be made in accordance with Section 403.516, Florida Statutes.

XXV. USE OF WATER FOR COOLING PURPOSES

A. AESCB

The CBCP may use either surface water from the Broward or St. Johns Rivers or reclaimed water provided either by the City of Jacksonville or by the Seminole Kraft Papermill as the preferred, permanent primary source of cooling water makeup. In the event that the preferred permanent primary cooling water source becomes temporarily unavailable because of environmental or

technical emergency, groundwater may be used as backup cooling water makeup only so long as the conditions necessitating such use persist. Under such circumstances, AESCB shall provide notice to DER, BESD, and SJRWMD in the manner provided for in Condition XI.

Within six months after issuance of certification, AESCB shall submit to DER an application for a modification containing information concerning the design and operation of the plant cooling system as appropriate for the cooling water source selected. The application shall also be submitted to SJRWMD and BESD, who may report concerning the AESCB cooling water application modification. The AESCB application shall contain all information necessary to demonstrate that operation of the cooling system for the preferred cooling water source selected will comply with all relevant non-procedural agency standards, or that AESCB qualifies for a variance. The AESCB application shall also include an analysis of the reasons for selection of the requested cooling water source over the other preferred alternate sources referred to in the above paragraph. The participating agencies shall respond within 30 days of receipt of the application as to whether or not it contains information sufficient to make a determination as to compliance with non- procedural agency standards. Thereafter, DER shall notify AESCB BESD and SJRWMD as to its determination concerning sufficiency. SJRWMD and BESD shall file any reports concerning the application with DER and provide a copy of AESCB within 60 days after DERs determination that the application is sufficient. DER shall indicate its approval or disapproval of the selected cooling water system proposal within 90 days of its determination that the application is sufficient. Any modifications to the certification or the conditions of certification including variances, exemptions, or mixing zones shall be made pursuant to the procedures set forth in Section 403.516, Fla. Stat., and/or Fla. Admin. Code Rule 17-17.211.

AESCB agrees that it is economically feasible and practicable for the CBCP to utilize reclaimed water for cooling purposes if it were charged by the City $.18-1/2 per thousand gallons without phosphorous treatment, or $.22 per thousand gallons with phosphorous treatment provided by the City, unless expenditures have already been made by AESCB to construct the cooling system to utilize surface water. The above costs do not set a limit on the economic feasibility or practicability of using reclaimed water. If it is determined that use of reclaimed water at a greater cost per thousand gallons is economically feasible and practicable, AESCB will be required to use reclaimed water at that cost. Similarly, if reclaimed water can be used at a lesser cost, that cost shall apply. Costs as defined above includes both capital costs and costs associated with ongoing operating and maintenance. Until entry of a final order concerning a

modification of certification to authorize use of one of the above preferred primary sources for cooling tower makeup, AESCB shall consider participating in a water reuse program for reclaimed water provided by the City of Jacksonville. AESCB agrees that the surface water cooling option is economically feasible and practicable if the facility is authorized to operate its cooling system with the same type of variances from Class III water quality standards, including mixing zones, set forth in the Conditions of Certification of the St. Johns River Power Park for that facility's cooling tower blowdown discharge to the St. Johns River. Those variances do not set a limit on the economic feasibility or practicability of operating the cooling system with variances. If it is determined that the use of surface water for cooling, with variances more restrictive than those types authorized for the St. Johns River Power Park, is economically feasible and practicable, then AESCB will be required to use surface water for cooling with those variances. Similarly, if AESCB is authorized to use surface water for cooling with less restrictive variances, those variances shall apply.

Groundwater may not be used as the permanent primary source of cooling water unless the approvals necessary to use the above preferred sources are either finally denied according to the process set forth in Fla. Admin. Code Rule 17-17.211; finally denied by the United States Environmental Protection Agency concerning its review of the CBCP application for NPDES permit for discharge of cooling water blowdown; or reclaimed water is demonstrated to be unavailable or impracticable as the permanent, primary source of cooling water and the surface water cooling option is finally denied as provided above. Prior to using groundwater as the permanent primary source of cooling water, AESCB shall exhaust all administrative remedies available in the state and federal processes referred to above. If the CBCP at any time becomes authorized to use groundwater as the permanent, primary source of cooling water then AESCB shall implement the attached Groundwater Mitigation Plan, which may be amended by the agreement of AESCB, the City, and SJRWMD without the necessity of modifying these Conditions of Certification. The detailed procedures for implementation and administration of the Groundwater Mitigation Plan may also be determined by agreement of AESCB, the City, and SJRWMD without necessity of a modification to these Conditions of Certification. AESCB shall make the required financial contributions for groundwater mitigation under the attached Groundwater Mitigation Plan regardless of whether AESCB, the City, and SJRWMD have reached an agreement by the beginning of plant operations concerning detailed procedures for implementation and administration of the Groundwater Mitigation Plan.

Reclaimed water used in the AESCB cooling tower shall be disinfected prior to use. Disinfectant levels in the cooling tower makeup shall be continuously monitored, prior to the insertion in the cooling tower. The reclaimed water shall be treated so as to obtain no less than a 1.0 mg/1 free chlorine residual after (15) minutes' contact time or its equivalent. Chlorination shall occur at a turbidity of 5 Nephelometric Turbity Units (NTU) or less, unless a lesser degree of disinfection is approved by the Department upon demonstration of successful viral kill. [Underlined portion not stipulated.]

Ground Water Mitigation Plan

AES Cedar Bay will diligently seek authorization to use surface or reuse water as its permanent primary source of cooling water. However, AES Cedar Bay wants to provide further assurance of its commitment to use a source of water other than groundwater for cooling by providing financial incentives to itself for the use of an alternative source. Further, in the unlikely event AES Cedar Bay uses groundwater for cooling purposes, it wants to significantly enhance the groundwater resources of the St. Johns River Water Management District, including Duval County.

To that end, AES Cedar Bay offers a Groundwater Mitigation Plan to be implemented if groundwater must be used for cooling purposes for the Cogeneration facility. This is a precedent-setting plan in that no such regional, resource-based plan has been implemented for a groundwater withdrawal in the state. The plan is intended to prevent waste of groundwater resources caused by discharges from free-flowing walls and to provide a funding program to develop and to implement water conservation and reuse programs for public and private entities within Duval County.

Steps of the plan are as follows:

1. AES Cedar Bay will provide for the prevention of waste from the Floridan aquifer.

The premise of the plan is twofold. First, a great deal of groundwater is currently being wasted through discharges from free-flowing wells in Florida. These wells are generally abandoned wells drilled into the Floridan aquifer which are no longer used for a reasonable or beneficial use. Because the water in the Floridan aquifer is under pressure, uncontrolled wells flow freely, discharging hundreds of thousands of gallons of water per day into surface waters. Such waste should be stopped, and AES Cedar Bay commits that it will work with the City and the Water Management District to do so.

Second, in an effort to promote the conservation of water resources, the Water Management District requires water users to implement water conservation measures and, when feasible, reuse of reclaimed waste water. These measures benefit the citizens of Duval County by reducing withdrawals of potable water from the Floridan aquifer.

a. AES Cedar Bay will fund a free-flowing well inventory in Duval County. Little information is known about the extent and nature of the free-flowing wells in this county, and the resources have not heretofore been available to undertake a comprehensive inventory. Wells may flow to the surface or may flow from the Floridan aquifer into the shallower zones. The inventory will be coordinated with the St. Johns River Water Management District and the City.

b. AES Cedar Bay will provide funding for plugging and abandoning of free-flowing wells to reduce the amount of discharge from these wells by 7MGD. Implementation of this program shall be pursuant to the existing Water Management District's Abandoned Artesian Well Plugging Program or its successor program. Wells to be capped or plugged will be identified and funded in the flowing priority order.

(1) Those wells currently identified by the St. Johns River Water Management District or Duval County as needing to be plugged in Duval County.

(2) After completion of the well inventory, those wells identified by the inventory as needing to be plugged in Duval County. The free-flowing well plugging program will be considered complete upon (1) the completion of the well inventory and (ii) the prevention of the uncontrolled flowing of 7 MGD through the plugging and abandoning of free-flowing wells.

2. Upon completion of the free-flowing well plugging and abandoning program or when both the City and Water Management District agree that all reasonably known free-flowing wells in Duval County have been legally abandoned, AES Cedar Bay will provide funding to the City to establish a grants-program for public and private entities of Duval County to develop and implement water conservation plans and to fund the reuse of reclaimed water in Duval County. For a public or private entity to receive funds from the conservation and reuse grants program, the water conservation plans and reuse systems must be approved by both the City and the Water Management District.

3. This plan will be implemented only in the unlikely event that AES Cedar Bay is unable to receive the necessary approvals to use either surface or reclaimed water was its permanent primary source of water for cooling tower purposes.

In the event AES Cedar Bay does not receive such approvals, funding will be provided as follows:

a. Thirty-one (31) days following final notification by the FDER or the USEPA that AES Cedar Bay will not receive approval to use surface or reuse water, AES Cedar Bay will provide $100,000 for the free-flowing well inventory study described in 1 (a) above to the Water Management District.

b. Beginning at commercial operation of the facility AES Cedar Bay will provide to the City $380,000 per year funding (an amount approximately 20% greater than AES Cedar Bay's avoided operating and capital costs associated with use of reclaimed water from the City of Jacksonville as the permanent primary source for plant cooling water) for the following items in the priority listed:

(1) Plugging of wells as discussed in item 1(b) above. This plugging program would cover Duval County.

(2) Funds not utilized for the well plugging program may be used by the City for the water conservation and reuse grants program discussed in item 2 above.

c. AES Cedar Bay's obligation to fund this plan will continue until the plant ceases to operate, or if before that time, AES Cedar Bay no longer utilizes groundwater as its permanent primary source of cooling water the above obligations shall cease.

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NOTICE OF RIGHT TO SUBMIT EXCEPTIONS

All parties have the right to submit written exceptions to this Recommended Order. All agencies allow each party at least 10 days in which to submit written exceptions. Some agencies allow a larger period within which to submit written exceptions. You should contact the agency that will issue the final order in this case concerning agency rules on the deadline for filing exceptions to this Recommended Order. Any exceptions to this Recommended Order should be filed with the agency that will issue the final order in this case.

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SETTLEMENT STIPULATION

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STATE OF FLORIDA
DIVISION OF ADMINISTRATIVE HEARINGS

AES CEDAR BAY,INC., and
SEMINOLE KRAFT CORPORATION,

Petitioners,

vs. DOAH CASE NO. 88-5740

STATE OF FLORIDA DEPARTMENT OF
ENVIRONMENTAL REGULATION,

Respondent,
and

CITY OF JACKSONVILLE,
DEPARTMENT OF COMMUNITY AFFAIRS,
PUBLIC SERVICE COMMISSION, ST.
JOHNS RIVER WATER MANAGEMENT
DISTRICT, JACKSONVILLE ELECTRIC
AUTHORITY, CHARLES W. BOSTWICK,
WILLIAM C. BOSTWICK, BARNETT
BANKS TRUST COMPANY, N.A., IMESON
INTERNATIONAL PARK, INC., and
INDUSTRIAL PARK DEVELOPMENT
CORPORATION, CITIZENS COMMITTEE,
INC., SIERRA CLUB, FLORIDA
AUDUBON SOCIETY, THE DUVAL
AUDUBON SOCIETY, INC., and
STAFFORD CAMPBELL,

Intervenors.
_____/

SETTLEMENT STIPULATION

The parties in this and related proceedings, Cedar Bay Cogeneration, Inc. ("CBC")(formerly known as AES Cedar Bay, Inc.), Seminole Kraft Corporation ("SK"), the Florida Department of

Environmental Regulation("DER"), St. Johns River Water Management District ("SJRWMD"), City of Jacksonville, the Citizens' Committee, Inc. (including all of its members, who are listed on Attachment A hereto), William C. Bostwick, Sierra Club, Florida Audubon Society, The Duval Audubon Society, Inc., and Stafford Campbell, as indicated below by their signatures or the signatures of their counsel or representatives (collectively "the Parties"), enter into the following settlement stipulation and agreement (Agreement), which shall be binding on themselves and their members, principals, successors and assigns. Persons signing on behalf of a group, organization, or legal entity represent that they have all necessary power and authority to execute this agreement and to bind said group, organization, or legal entity and its members.

A. Purposes

1. The intent of this Agreement is to resolve fully and finally, and with prejudice, all disputes, issues or other matters arising in the above-styled proceeding and in all related permitting proceedings or appeals at the federal, state, regional and local levels arising out of, or related to, the certification of, the petition for modification of certification of, or the permitting of, the Cedar Bay Cogeneration Project ("CBCP" or "Project") and its construction and operation in a manner binding on the parties to this Agreement. This Agreement resolves all issues which were raised or could have been raised in this proceeding or any other proceeding, including but not limited to the issue of use of natural gas in the Project or the Project's satisfaction of federal, state, regional and local environmental or other regulations. The parties will not seek administrative or judicial review, or seek revocation of, any certification or permit for the Project which is consistent with the terms of this Agreement. This Agreement neither waives nor expands the rights available to any Party under existing law to seek enforcement or any other remedy for violation of this Agreement, the conditions of certification, or any state or federal permit for facts occurring after the date of this Agreement.

2. Each Party hereby requests, intending to be bound by its individual execution of this Agreement, that the Florida Power Plant Siting Board (Siting Board) enter a Final Order Approving Modification of Site Certification that contains the Conditions of Certification attached hereto as Attachment B and the provisions of this Agreement contained in Paragraphs 3 through 6 inclusive. All other provisions of this Agreement which are not included in the modified certification or other related permit shall be

independently binding on the parties hereto. Furthermore, the parties agree that the findings implicit and explicit in this document establish that, if operated in compliance with the certification and applicable permits, the CBCP as now proposed plus the package boilers now proposed by SKC fully satisfy the Florida Electrical Power Plant Siting Act, all applicable federal, state, regional and local environmental requirements, and the Siting Board's Order Initiating Modification Proceedings, dated June 17, 1992, and are associated with, "[o]n balance," fewer "environmental impact" than are associated with the SKC recycling operation without the CBCP as now proposed.

B. Conditions of Certification

3. A revised Condition of Certification No. XXVIII shall be included in the Conditions of Certification as contained in Attachment C hereto.

4. An additional condition of certification No. II.A.8.c. shall be included in the Conditions of Certification, as follows:

> Compliance tests shall be performed for mercury (Hg), beryllium (Be), and lead (Pb) until three consecutive tests (including, if successful, the initial compliance test) are within the annual emission limits specified in Condition II.A.3. above. Such tests shall occur, as necessary, in the first, fifth and tenth years and additional successive five year intervals following commercial operation of the Project.

5. Revised Conditions of Certification No. II.A.6 and II.A.9. to address the use of Continuous Emissions Monitors for determining compliance with emissions limits for sulfur dioxide, nitrogen oxides, carbon monoxide and opacity shall be included in the Conditions of Certification, as follows:

> 6. Compliance with the emission limits shall be determined by EPA reference method tests included in the July 1, 1992 version of 40 CFR Parts 60 and 61, Rule 17-297, F.A.C., and listed in Condition No. II.A.8 of this permit or by equivalent methods after prior written DEP approval. In addition, compliance with the emission limitations in Condition No. II.A.3 for CO, NOx, and SO2 and with the

opacity requirements in Condition No.II.A.5 shall be determined with the Continuous Emission Monitoring Systems (CEMs) identified in Condition No. II.A.9.

9. CBCP shall install, certify, calibrate, operate, and maintain continuous emission monitoring systems for opacity, SO2, NOx, CO, and O2 or CO2, pursuant to all applicable requirements of Rule 17-296.800, F.A.C., Chapter 17-297, F.A.C., 40 CFR 60 Subpart A, 40 CFR 60 Subpart Da, 40 CFR 60 Appendix B, and 40 CFR 60 Appendix F. These CEMs shall be used to determine compliance with the emission limitations in Condition No. II.A.3 for CO, NOx, and SO2 and with the opacity requirements in Condition No. II.A.5. The permittee may elect to install, certify, calibrate, operate, and maintain multiple span continuous emission monitoring systems for sulfur dioxide and nitrogen oxides providing certification tests and calibrations are performed for each span. Each of the continuous emission monitoring systems for sulfur dioxide and nitrogen oxides shall continuously record data on a span that satisfies the requirements of 40 CFR 60.47a. Any exception to the above must be specifically authorized by DEP in writing and in accordance with state and federal regulations.

6. Revised Conditions of Certification II.D. and II.E. to address Seminole Kraft Corporation's annual emissions from its new package boilers and actions to dismantle or render inoperable SK's existing power and bark boilers following surrender of the air permits for those boilers shall be included in the Conditions of Certification as follows:

D. Contemporaneous Emission Reductions

This certification and any individual air permits issued subsequent to the final order of the Board certifying the power plant site under section 403.509, F.S., shall require that the following Seminole Kraft Corporation sources be permanently shut down and made

incapable of operation, and shall turn in their operation permits to the Division of Air Resources Management's Bureau of Air Regulation, within 30 days of written confirmation by DER of the successful completion of the initial compliance tests on the CBCP boilers: the No. 1 PB (power boiler), the No. 2 PB, the No. 3 PB, the No. 1 BB (bark boiler), and the No. 2 BB. RESD shall be specifically informed in writing within thirty days after each individual shut down of the above referenced equipment. Within one year of surrender of operating permits as provided above, SK shall have completed the following steps to ensure compliance with this condition:

Remove all oil guns;
Remove motors and selected conveyor parts in wood feed system for bark boilers;
Dismantle stacks;
Disconnect boiler feedwater pumps;
Sever fuel line connections; and
Remove fan motors.

These sources shall not, under any circumstances, be restarted, refurbished or re-permitted as new or existing sources, at the SK or CBCP site.

This requirement shall operate as a joint and individual requirement to assure common control for purpose of ensuring that all commitments relied on are in fact fulfilled.

E. SK Steam Boiler Emissions

1. This certification and any individual air permits issued by the Department subsequent to the final order of the Board certifying the power plant site under Section 403.509, Florida Statutes, shall incorporate the following limitations on the total tonnage of the specified criteria pollutants allowed to be emitted annually by any natural gas-fired boiler or combination of boilers constructed and operated by SK to provide up to 375,000

lbs/hr. of steam for use in its recycled paper process:

Tons Per Year	
CO	553
NOx	310
SO2	25, except as provided in E.2 below.

2. In the event that the ceiling for SO2 is expected to be exceeded due to unavailability of natural gas caused by factors beyond the control of SK, SK may notify the Department that it must exceed the ceiling as provided herein; and emissions of SO2 during the period of such curtailment shall not be counted against the yearly emissions ceiling of 25 tons unless administrative proceedings result in a finding that the exceedance was within Seminole Kraft's control. In no event shall the annual emissions of SO2 from the steam boilers referenced above exceed a ceiling of 41 tons per year.

3. The notice shall include a statement of reasons for the request and supporting documentation, and shall be published by SK, without supporting documents, in a newspaper of general circulation in Jacksonville as defined in section 403.5115(2), Florida Statutes. The filing and publication of the notice no later than 7 days following the date of exceedance shall preclude any finding of violation by DER until final disposition of any administrative proceedings.

C. Other Environmental Provisions

7. As an incentive to achieve lower sulfur dioxide emissions than permitted under the Conditions of Certification, CBC shall pay annually to the City of Jacksonville, Land Acquisition Trust Fund, $400 for each ton of sulfur dioxide emitted in excess of 2208 tons per calendar year from the CBCP's three circulating fluidized bed boilers, combined, up to the total annual permitted sulfur dioxide emissions for the Project; provided, however, that any taxes, charges or fees payable under an applicable regulatory program on account of emissions above 2208 tons per year but below the maximum permitted annual emissions shall be deducted from the

$400 per ton payable under this provision. The annual sulfur dioxide emissions from the CBCP's CFB boilers for purposes of this provision shall be determined based on continuous emissions monitoring data for the calendar year. The amount of any such payments due for a calendar year shall be determined by March 1st of the following year and be paid to the City of Jacksonville, Land Acquisition Trust Fund, by May 1st. Any annual emissions of sulfur dioxide above 2208 TPY but below the maximum permitted annual emissions shall not constitute a violation of the Conditions of Certification or of this Agreement.

8. As an incentive to achieve lower nitrogen oxide emissions than permitted under the Conditions of Certification, CBC shall pay annually to the City of Jacksonville, Land Acquisition Trust Fund, $200 for each ton of nitrogen oxides emitted in excess of 1948 tons per calendar year from the CBCP's three circulating fluidized bed boilers, combined, up to the total annual permitted nitrogen oxide emissions for the Project; provided, however, that any taxes, charges or fees payable under an applicable regulatory program on account of emissions above 1948 tons per year but below the maximum permitted annual emissions shall be deducted from the $200 per ton payable under this provision. The annual nitrogen oxide emissions from the CBCP's CFB boilers for purposes of this provision shall be determined based on continuous emissions monitoring data for the calendar year. The amount of any such payments due for a calendar year shall be determined by March 1st of the following year and be paid to the City of Jacksonville, Land Acquisition Trust Fund, by May 1st. Any annual emissions of nitrogen oxides above 1948 TPY but below the maximum permitted annual emissions shall not constitute a violation of the Conditions of Certification or of this Agreement.

9. CBC agrees to donate to the City of Jacksonville the sum of $575,000 within 30 days after commencement of commercial operation. Of this sum, $350,000 shall be earmarked for construction of a new fire station east of the rail line in the vicinity of the intersection of Main St. and Busch Dr. to improve response times for emergency vehicles to reach the residential areas near the Project site. The other $225,000 shall be earmarked for the purchase of one (1) mobile air quality monitoring van, for use by the City of Jacksonville Department of Regulatory and Environmental Services to monitor ambient air for concentrations of non-criteria pollutants. The City of Jacksonville shall use its best efforts to acquire such an air quality monitoring van for a purchase price less than $225,000. If the City is successful in acquiring such a van for less than

$225,000, the remaining funds shall be applied toward the construction of the new fire station.

10. CBC agrees to provide on-site and off-site improvements to mitigate impacts across the Broward River from noise and light created by the Project. Such improvements shall be done in accordance with the landscape plan for the Project as approved by the City of Jacksonville on April 2, 1993. During the first three years of commercial operation, CBC, after consultation with the Citizens' Committee, Inc., will provide further mitigation for noise and light impacts by providing additional on-site or off-site improvements including improvements to the CBCP, which are intended to reduce such impacts; however, no such further improvements and related services, including consulting fees, shall exceed a total cost of $120,000. Any such improvements to the Project shall not occur if such mitigation would cause any adverse impacts to, including filling of, wetlands; require adverse modifications of the stormwater management system or ponds; or cause a violation of the conditions of certification, applicable law or the City of Jacksonville's landscape ordinance.

11. The Project shall be constructed in conformance with the conceptual Site Plan attached hereto as Attachment D. This site plan represents the facilities that are currently to be constructed and operated pursuant to the Site Certification, as modified pursuant to these proceedings and this Agreement, and the locations of those facilities. Any future modifications to this Site Plan shall be made in accordance with applicable law and regulations.

12. The parties agree that CBC will not be required to pursue a federal National Pollutant Discharge Elimination System (NPDES) or other permit for a surface water discharge permit for any Phase II water treatment system as referenced in the Siting Board's Order Instituting Modification Proceedings, dated June 17, 1992. No such Phase II water treatment system is proposed and any prior proposal has been withdrawn in favor of the CBCP's zero discharge system.

13. The parties hereto agree not to oppose the issuance of any NPDES permit for the Project for the discharge of storm water or runoff caused by extreme rainfall events from the yard area and storage area runoff ponds as shown on Attachment D, provided that the proposed discharge is consistent with the data previously submitted on or about April 4, 1993 to DER, SJRWMD, and the City of Jacksonville in support of the Petition for Modification of Certification. For purposes of this agreement, an extreme

rainfall event is defined as 1) a 50 year/24 hour storm for runoff from the storage area; 2) a 22 year/24 hour storm for runoff from the yard area when the CBCP turbine generator is operating; or 3) a 12 year/24 hour storm for runoff from the yard area when the CBCP turbine generator is not operating.

14. The parties agree that there is no basis to require the preparation or completion of an environmental impact statement (EIS) for the Project and that the parties will not request that such an EIS be completed or prepared.

15. Any proposal to plant trees as an offset of carbon dioxide emissions from the Project, as proposed by a previous owner of the stock of CBC, is satisfied by the improvements made pursuant to the modified conditions of certification and this Agreement.

16. Seminole Kraft stipulates that the issuance of the original certification for the CBCP consumed all creditable emissions resulting from the shutdown of Seminole Kraft's existing bark and power boilers. Any creditable emissions resulting from the shutdown of the Kraft recovery boilers, lime kilns, smelt dissolving tanks and slaker No. 3 shall be determined as provided in Rule 17-212.400(a), F.A.C. and any permit issued for SK's three proposed package boilers; but SK acknowledges that no creditable emissions remain for sulfur dioxide.

17. The Project and the Seminole Kraft recycling mill are independent sources of air emissions. Accordingly, neither shall be entitled to receive further air emission credits or offsets based upon the operating performance of the other below its air emission limits established in the attached Conditions of Certification or any air permit nor shall there be enforcement taken against one of these parties for violations of legal requirements by the other of these two parties.

D. Other Provisions

18. With respect to the first public announcement of this settlement agreement, the timing and wording of the first release of this Agreement will be reserved to the City of Jacksonville, the Sierra Club, Audubon Societies, Stafford Campbell and the Citizens' Committee, after consultation on such timing and wording with representatives of CBC and Seminole Kraft. Nothing released is to be derogatory of any party to this Agreement, nor inconsistent with the terms of this Agreement. Subsequent releases may be made by any party to this Agreement at its option,

but in all instances shall be consistent with the terms of this Agreement.

19. The Parties agree to cooperate in obtaining final action by the Siting Board on the proposed modification as expeditiously as possible. The Parties agree that any presentation which they may make to the Hearing Officer and the Siting Board shall be consistent with the terms, provisions and spirit of this Agreement and with the modified conditions of certification. The parties further agree to consult with one another in advance of the meeting of the Siting Board concerning any presentation they may make to the Board.

20. The Citizens' Committee Inc., Sierra Club, Florida Audubon Society, Duval Audubon Society, and Stafford Campbell agree to return no later than April 30, 1993 to counsel for CBC and SK, respectively, all copies of all documents which are subject to any confidentiality agreement in this case.

21. Within 30 days following final action by the Siting Board approving the modifications of site certification, CBC will state in writing to the United States Environmental Protection Agency that it will operate the Project in compliance with Section II of the Conditions of Certification attached hereto and Paragraph 5 of this Agreement as though those provisions were incorporated into the existing air permit for the Project and accepts them as federally enforceable. CBC will contemporaneously provide a copy of this letter to the other Parties to this Agreement.

22. As an element of this Agreement, CBC has provided the Certificate attached as Attachment E.

23. All Parties waive any right to appeal, to challenge or to take other judicial or administrative action to oppose, in any forum available, the issuance of a final revised air permit for the Project which contains permit conditions that are substantially equivalent to the Conditions of Certification contained in Section II of the conditions of certification in Attachment B hereto and the additional provisions of Paragraph 5 herein. The Parties reserve and do not waive the right to challenge or otherwise oppose any final revised air permit for the Project that contains conditions substantially different from those addressed by section II of the conditions of certification and Paragraph 5 of this Agreement.

24. This agreement may be executed in multiple counterparts.

WHEREFORE, the parties hereto signify their ratification of this settlement Stipulation by affixing their signatures hereto:

Stafford Campbell

_____

Date: 4/13/93

Sierra Club, Florida Audubon Society, The Duval Audubon Society, Inc.

By: _____

James Heard, Attorney

Date: 4/13/93

Citizens' Committee, Inc.

By:_____

Barbara Broward, President

Date: 4/13/93

Cedar Bay Cogeneration, Inc.

By:_____

Gary P. Sams, Attorney

Date: 4/12/93

Florida Depatment of Environmental Regulation

By:_____

Richard T. Donelan

Assistant General Counsel

Date: 4/12/93

City of Jacksonville

By:_____

Its:_____

Date: _____

St. Johns River Water Management District

By:_____

Its: Assistant General Counsel

Date: 4/13/93

Seminole Kraft Corporation

By:_____

Scott Shirley, Attorney

Date: 4/12/93

Charles W. Bostwick

_____

Date: 4/13/93

The Estate of William C. Bostwick and Barnett Banks Trust Company, N.A.

By:_____
Charles W. Bostwick
Date: 4/13/93

* NOTE: Settlement Stipulation Attachment A is available for review in the Division's Clerk's Office.

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DOAH ORDER RELINQUISHING JURISDICTION

==========

STATE OF FLORIDA
DIVISION OF ADMINISTRATIVE HEARINGS

AES CEDAR BAY, INC. and SEMINOLE KRAFT CORPORATION,	)	
Petitioners,	)	
vs.	)	CASE NO. 88-5740
DEPARTMENT OF ENVIRONMENTAL REGULATION,	)	
Respondent,	)	
and	)	
CITY OF JACKSONVILLE, DEPARTMENT OF COMMUNITY AFFAIRS, PUBLIC SERVICE COMMISSION, ST. JOHNS RIVER WATER MANAGEMENT DISTRICT, JACKSONVILLE ELECTRIC AUTHORITY, CHARLES W. BOSTWICK, WILLIAM C. BOSTWICK, BARNETT BANKS TRUST COMPANY, N.A., IMESON INTERNATIONAL PARK, INC., and INDUSTRIAL PARK DEVELOPMENT CORPORATION, CITIZENS COMMITTEE, INC., SIERRA CLUB, FLORIDA AUDUBON SOCIETY, THE DUVAL AUDUBON SOCIETY, INC. and STAFFORD CAMPBELL,	)	
Intervenors.	)	

ORDER

Upon consideration of the parties' joint agreed motion to relinquish jurisdiction, in accordance with Rule 6OQ-2.033 Florida Administrative Code, it is

ORDERED:

1. The joint agreed motion to relinquish jurisdiction to the Siting Board is granted.

2. The file opened in this matter by the Division of Administrative Hearings is hereby closed.

DONE and ENTERED this 28th day of April, 1993 in Tallahassee, Leon County, Florida.

_____

ROBERT T. BENTON, II
Hearing Officer
Division of Administrative Hearings
The DeSoto Building
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(904) 488-9675

Filed with the Clerk of the Division of Administrative Hearings this 28th day of April, 1993.

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