BEFORE THE GOVERNOR AND CABINET
OF THE STATE OF FLORIDA

In Re: Seminole Electric Cooperative, Inc., Application for Power Plant Site Certification, Putnam County, Florida.	)))))	Case No. 78-1388

The following persons were present and participated in the disposition of this matter:

Honorable Bob Graham
Governor

Honorable George Firestone
Secretary of State

Honorable Jim Smith
Attorney General

Honorable Gerald A. Lewis
Comptroller

Honorable Bill Gunter
Treasurer and Insurance Commissioner

Honorable Ralph D. Turlington
Commissioner of Education

Honorable Doyle Conner
Commissioner of Agriculture

CERTIFICATION ORDER

BY THE GOVERNOR AND CABINET:

The Governor and Cabinet, sitting as the Board, having heard presentations by the parties, having reviewed the Recommended Order dated August 22, 1979, (attached and incorporated as Exhibit A), and being otherwise fully advised herein, it is ORDERED:

1. The Findings of Fact and Conclusions of Law contained in the August 22, 1979, Order are correct and are supported by competent and substantial evidence.

2. The Findings of Fact and Conclusions of Law contained in the August 22, 1979, Order are specifically approved and adopted.

3. The Recommended Order is adopted and site certification for proposed generating Units 1 and 2 is granted subject to the conditions attached in the Recommended Order as amended by the Stipulation (attached and incorporated as Exhibit B), between Seminole Electric Cooperative, Inc., and Florida Department of Environmental Regulation dated August 28, 1979.

DONE AND ENTERED this 18th day of September, 1979, in Tallahassee, Florida, subsequent to a vote of the Governor and Cabinet at a duly constituted Cabinet meeting of September 18, 1979.

FOR THE GOVERNOR AND CABINET:

BOB GRAHAM
Governor

Vote:

For: Against:

Unanimous

Copies furnished to all parties

STATE OF FLORIDA
DIVISION OF ADMINISTRATIVE HEARINGS

IN RE:	)	
	)	
SEMINOLE ELECTRIC	)	
COOPERATIVE, INC.	)	CASE NO. 78-1388
SITE CERTIFICATION	)	
	)	
	)	

FINDINGS OF FACT, CONCLUSIONS
OF LAW, AND RECOMMENDED ORDER

This proceeding was held pursuant to the Florida Electrical Power Plant Siting Act, Chapter 403, Part II, Florida Statutes, and Chapter 17-17, Florida Administrative Code, to consider the application of Seminole Electric Cooperative, Inc. (Seminole) for site certification of two electrical generating facilities, associated facilities, and directly associated transmission lines, collectively known as Seminole Plant Units No. 1 and No. 2 (Units 1 and 2), proposed for Putnam County, Florida.

The Governor and Cabinet, sitting as the Board under Chapter 403, Part II, Florida Statutes, entered an Order dated March 21, 1979, holding that the proposed site including associated facilities and directly associated transmission lines is consistent and in compliance with existing land use plans and zoning ordinances.

The statutory parties to this proceeding, in addition

EXHIBIT A

to Seminole, are:

1. Florida Department of Environmental Regulation;
2. Florida Public Service Commission;
3. Florida Division of State Planning; and
4. St. Johns River Water Management District.

North Central Florida Regional Planning Council became a party to the proceeding pursuant to Section 403.508(3)(b)2, Florida Statutes, and the Sierra Club became a party to the proceeding pursuant to Section 403.508(3)(b)3, Florida Statutes.

Pursuant to Sections 403.508(3)(e) and 403.509(2), Florida Statutes, and Section 17-17.11(2)(3), Florida Administrative Code, Seminole requested that the following agencies be made parties to this proceeding:

1. Florida Department of Transportation;
2. Florida Department of Natural Resources;
3. Suwannee River Water Management District;
4. Bradford County;
5. Clay County;
6. Columbia County;
7. Marion County;
8. Putnam County;
9. Suwannee County;
10. Union County;
11. City of Ocala; and
12. City of Lake City.

The Florida Department of Transportation, Clay County, Columbia County, Marion County, Putnam County, Union County, and the City of Ocala filed notices of intent to participate and thereby became parties. The Florida Department of Natural Resources, the Suwannee River Water Management District, Bradford County, Suwannee County, and the City of Lake City did not file notices of intent to participate.

Pursuant to proper notice (Hearing Officer's Exhibit 1), a certification hearing as required by Section 403.508(3), Florida Statutes, was held in Palatka, Florida, June 4, 1979, for the purpose of receiving testimony and evidence concerning whether the location and operation of the proposed facilities will produce minimal adverse effects on human health, the environment, the ecology of the land and its wildlife, and the ecology of state waters and their aquatic life. The hearing included an examination of the following: the necessity for expanded electrical generation; the expected environmental impact from construction and operation of the facilities; operational safeguards of the facilities; the availability of abundant, low-cost electrical energy; and other public interests and issues relevant to certification of the proposed site. In addition, evidence relating to best available control technology (BACT), the prevention of significant deterioration (PSD), variances and effluent limitations, mixing zones, zones of discharge, and permission

for the applicant to use, connect to, or cross over property or works of the State of Florida, Department of Natural Resources, Department of Transportation, City of Lake City, City of Ocala, Clay County, Columbia County, Putnam County, Marion County, Union County, Suwannee County, Bradford County, Suwannee River Water Management District, and St. Johns River Water Management District was presented.

The following parties entered appearances or were present at the hearing:

1. Seminole Electric Cooperative, Inc.;
2. Florida Department of Environmental Regulation;
3. Florida Public Service Commission;
4. Florida Department of Transportation;
5. The Sierra Club;
6. Putnam County; and
7. Marion County.

Only Seminole, the Department of Environmental Regulation, the Public Service Commission, and the Board of County Commissioners of Putnam County actively participated at the hearing.

All contested issues were resolved by agreement of the parties at or before the certification hearing. Having considered all testimony and evidence properly admitted, having heard argument of counsel, and being otherwise fully apprised herein, the following Findings of Fact, Conclusions of Law, and Recommended Order are entered.

FINDINGS OF FACT

1. The proposed site of Units 1 and 2 is approximately 4-1/2 miles north of Palatka, Florida. It is situated north and west of the St. Johns River and is bordered on the west by U. S. Highway 17 and the Seaboard Coast Line Railroad. It is primarily high terrain covered with pines, palmettoes, and scrub oaks. It slopes on the south and east to the river and on the north to a hardwood and cypress swamp area. Until recently, it was used primarily for logging. It consists of 1,994 acres. It includes a 66-foot wide corridor for vehicular access to County Road 209 on the south. Additional access by vehicles and rail will be provided at the northwest boundary where the principal site abuts U. S. Highway 17 and the Seaboard Coast Line Railroad right-of-way. Access to the river for the intake and discharge pipelines will be provided by a 100-foot to 200-foot wide corridor on the south to the river.

2. Three double circuit 230-KV directly associated transmission lines are proposed. The proposed routes are as follows:

Route 1:

From the principal site to the Putnam Substation near Palatka.

Route 2:

From the principal site to the Silver Springs substation at Silver Springs, Florida.

Route 3:

From the principal site to the Columbia substation in Lake City, and continuing by one branch line to a substation at Suwannee and by another branch line to a substation near Ft. White.

Seminole and its consultants have studied various alternative corridors for these proposed transmission lines. Those finally selected, and described in Appendix "M" of the application, will minimize adverse environmental impacts. The specific rights-of-way within the mile-wide corridors will be determined by Seminole at a later date and be subject to Condition of Certification XIII and Conclusion of Law Number 33(c).

3. Units 1 and 2, as proposed, are each a 620 MW coal-fired steam electric generating unit with related facilities. As envisioned, the two units will share a single chimney shell approximately 675 feet tall which will contain two flues, one for each unit. Each unit will control oxides of nitrogen by boiler design, particulates by electrostatic precipitators, and sulfur dioxide by flue gas scrubbers. Each unit will also have a natural draft cooling tower approximately 450 feet tall and about 400 feet in diameter at the base for the purpose of expelling the rejected heat load to the atmosphere rather than to the river. The closed cycle condenser cooling system, of which the cooling

towers are an integral part, recirculates the cooling waters thereby reducing substantially the volume of water required to be withdrawn from the river. The intake structure will be located 325 feet offshore in the St. Johns River. It will utilize wedge wire screens to minimize entrainment and will achieve intake water approach velocities of less than 0.5 feet per second to minimize impingement. The discharge structure will be located 900 feet offshore at a point at which the river is over a mile wide and the channel is approximately 2,000 feet offshore. This location will assure that the mixing zones will not encroach nursery areas. Other associated facilities will include the railroad spur, two access roads, sewage disposal plant, central wastewater treatment system, solid and liquid waste storage areas, coal and limestone handling and storage areas, service building, maintenance shop, warehouse, 230 KV switchyard, and two freshwater wells. The two wells will supply plant service water from the Floridan aquifer. None of this water will be used for cooling the condensers.

4. Units 1 and 2 will be needed for additional capacity by their projected startup dates of June 1983 and June 1985 respectively. At the present time Seminole has only negligible generating capacity of its own. To determine Seminole's future electrical needs, a Power Requirements Study was prepared in March 1977 by each of Seminole's

member cooperatives. It was conducted in accordance with Revised REA Bulletin 120-1. Key factors which affected the electrical load growth were analyzed, including population growth, anticipated economic development, consumer income, the effect on usage of the cost of electricity, the effect of conservation efforts, and the impact of weather. From this information and other local considerations, a forecast was developed by each member system. The composite of the individual system analyses was reviewed and completed as the Seminole Forecast.

For the winter of 1977-78, Seminole predicted a demand of 992 MW and had an actual demand of 1,007 MW. For the winter of 1978-79, Seminole predicted a demand of 1,104 MW and the actual winter peak was 1,069. The predicted electrical demand of the Seminole member systems for the winter of 1983 is 1,835 MW and the predicted demand for the winter of 1985 is 2,235 MW. Even if those demand predictions are high, Seminole's members will have sufficient demand to justify the additional 1,240 MW of capacity that Seminole proposes.

Seminole has engaged in continuing efforts to purchase generating capacity from other electric power generating utilities and other alternatives. Despite these efforts, the evidence shows that the 1,240 MW of additional generating capacity are needed as planned.

Seminole is connected with other electric power generating utilities in the state via the grid system. The evidence shows that the effect of not installing the two Seminole units would be to cause the winter reserve for Florida to drop 2.6 percent in 1983-84 and 4.7 percent in 1985-86. Florida's total reserve would drop to 14.8 percent in 1986-87 and 14.1 percent in 1988-89 if the two Seminole units were not installed. Those reserve levels would be unacceptably low, especially in view of an unacceptably high loss of load probability (LOLP) for the same period. The evidence also shows that Florida needs additional electric generating capacity and that the failure to build Seminole Units 1 and 2 as coal-fired units might cost Floridians an aggregate of $200,000,000 every year in increased fuel costs. Thus, the Seminole units will help Florida reduce its dependence on the use of foreign oil which has an uncertain supply future.

5. In the preparation of the principal site and construction of the associated facilities other than transmission lines, approximately 420 acres of land will be cleared. About 65 percent of the vegetation within the principal site will be left undisturbed. Previous lumbering activities have already greatly lowered the quality of much of the principal site as a wildlife habitat. Frequent disruption

by man and competition from hogs have resulted in relatively low wildlife populations in the area so that the more mobile species can move to surrounding habitats without overcrowding. The impact of the removal of less mobile species, which are not abundant, will be minor.

6. Due to the isolated nature of the proposed site for Units 1 and 2, there is very little opportunity for public access during construction and operation. Vehicular traffic from U. S. Highway 17 to the west and County Road 209 to the south will be intercepted and controlled by a guard system. The railroad crossing to U. S. Highway 17 will be protected by a signal and gate system. Seminole has proposed adequate measures to comply with the federal Occupational Safety and Health Act and the Florida Workmen's Compensation Law, to minimize fugitive dust during construction, to minimize open burning, and to control turbidity and sedimentation from construction activities. Increased ambient noise levels resulting from construction activities will have little impact on the general public due to the remoteness of the plant site and the presence of a tree screen surrounding most of the construction site.

7. The wastewaters to be discharged from Units 1 and 2 to the St. Johns River consist of those from the central wastewater treatment facility, cooling tower blowdown, and the sewage treatment facility. These facilities are designed

to cause all of these discharges to comply (i) with all applicable provisions of the federal Effluent Guidelines and Standards for Steam Electric Power Generating Point Sources, as made applicable in Florida by Section 17-6.01(2), Florida Administrative Code, in the manner described in Condition of Certification II, (ii) with the effluent limitations for temperature, pH, chlorine, and oil and grease described in Condition of Certification II A, and (iii) with the requirements relating to sanitary wastes contained in Chapter 17-6, Florida Administrative Code. The total volume of wastewaters to be discharged to the St. Johns River will average 2.45 mgd and never exceed 7.46 mgd.

8. Seminole and its consultants have modeled and analyzed the projected effect of the proposed wastewater discharges of Units 1 and 2 on the St. Johns River. Except to the possible extent discussed in paragraph 10 for which a variance is recommended, the evidence developed from such studies shows that through compliance with the effluent limitations established by Condition of Certification II A 12 (b), the concentrations of each substance discharged by Seminole will meet the water quality standard applicable to that substance at the boundary of the instantaneous mixing zone established for that substance by Condition of Certification II A 10. Should ambient concentrations of oil and grease within the St. Johns River be found to exceed

5 mg/l, Seminole can comply with the Florida water quality rules for oil and grease by further reducing the concentration of oil and grease in its wastewater discharges to 5 mg/l.

9. The evidence developed in the studies referred to in paragraph 8 above shows that through compliance with the thermal effluent limitations established by Condition of Certification II 3 A, the temperatures will meet the thermal water quality standard at the boundary of an instantaneous thermal mixing zone of 155 square feet established by Condition of Certification II A 3.

10. Seminole has requested a variance from water quality standards during those occasional instances when the natural background concentrations of cadmium, lead, mercury, and zinc within the St. Johns River approach or exceed the water quality standards for those substances. When concentrations of those four substances within the river are at normally experienced levels, the concentrations of each within the wastewater discharges can be diluted to applicable water quality limits within a mixing zone smaller than the 31-acre instantaneous mixing zone presumptively allowable by the water quality rules. The evidence discloses that there is no practical removal technique that can reduce concentrations of these four substances to those levels equivalent to the water quality standards applicable to the river when

the river itself exceeds the standards. Neither is there any practicable means by which the discharge of wastewaters can be eliminated entirely, since the cost of doing so would be between $140,000,000 and $280,000,000 over the life of the plant, or would require the use of percolation ponds approximately 24 miles long. Should the highest recorded ambient concentrations of these substances within the river recur, the effluent limitations described in Condition of Certification II A 12 (a) will assure that the wastewater discharges will have an undetectable effect on concentrations of these substances within the river generally and will produce a net reduction in the mass of each present within the river.

11. When Units 1 and 2 are operating at full capacity, the volume of water to be withdrawn from the St. Johns River will be 15.8 mgd. This is a small fraction of the nearly 5,000 mgd average net downstream flow of the St. Johns River at the site and will have no significant impact on the river.

12. The volume of water to be withdrawn from the two wells will average approximately 410 gpm. The evidence discloses that this small withdrawal of groundwater from the Floridan aquifer will not significantly affect the potentiometric levels for the Floridan aquifer, will not cause the water table aquifer to be lowered, will not significantly

affect lake stages or vegetation on lands beyond the site boundary, and should not cause any significant upconing or lateral migration of salt water.

13. Seminole and its consultants have studied various strategies for minimizing the effects of the operation of Units 1 and 2 on groundwaters. Those selected for implementation or further study are described in the amended application, the testimony of Seminole witnesses, and the conditions of certification. The projected effects on groundwater have been modeled and analyzed by Seminole and its consultants. The evidence developed from such studies shows that the operation of Units 1 and 2 as proposed subject to the attached conditions of certification will comply with the groundwater quality standards at the boundary of the zone of discharge both during the operation of Units 1 and 2 and after the closure of the plant. The evidence in the application, as amended, relating to the zone of discharge for groundwaters included consideration of physical, chemical, and hydrological characteristics of the receiving strata, methods of discharge, cumulative effect on all zones of discharge, and the conditions and direction of flow of the receiving groundwater. It also included consideration of other sources of pollutants, proximity of water supply facilities, the nature, volume, and frequency of the proposed discharge including synergistic effects, and geologic conditions. The foregoing were considered in order to

determine the effect on public health, safety, and welfare. After consideration of these matters in the application the Department of Environmental Regulation has concluded in Condition of Certification III F 1 that the boundary of the zone of discharge should coincide with the boundary of the site.

14. Seminole and its consultants have modeled and analyzed the projected effect of the air pollution control strategy proposed for Units 1 and 2. The evidence developed from such studies shows that the operation of Units 1 and 2 as proposed pursuant to the attached conditions of certification will comply with the state and federal standards for the prevention of significant deterioration of air quality and will meet all state and federal air emission limitations to the extent applicable to Units 1 and 2. In addition, the evidence demonstrates that the emission control strategy proposed by Seminole and its consultants utilizes the best available control technology as required by state and federal regulations.

15. During and at the conclusion of the site certification hearing, the public was given the opportunity to comment upon the application for site certification. Twenty-two members of the public offered testimony under oath. Twelve witnesses, representing United Paper Workers Local 598, IBEW Local 1583, the Putnam County Chamber of Commerce, the Putnam County Development Authority, the Putnam County Board

of Realtors, IBEW Local 1205, the District School Board of Putnam County, the Azalea City Kiwanis Club, the Plumbers and Pipefitters local union, the City of Palatka, and the Downtown Association of Palatka, and three individual witnesses testified in favor of certifying Seminole Units 1 and 2 as proposed. Six individual members of the public and one witness representing agricultural interests testified against site certification or raised questions about it. The principal areas of concern were water use and air impacts. No competent substantial evidence that would support findings of fact contrary to Findings of Fact Numbers 11, 12, and 14 was introduced into evidence.

16. The Florida Department of Environmental Regulation, the Public Service Commission, the Division of State Planning, and Putnam County have all recommended certification of Units 1 and 2. The recommendation of the Department of Environmental Regulation is subject to the imposition of the conditions of certification which are attached.

17. Seminole will need to use, cross over or connect to properties or works of the following agencies:

State of Florida, Department of Natural Resources	Transmission lines over St. Johns River and easement for intake and discharge pipelines and structures in St. Johns River
Florida Department of Transportation	Transmission lines over state roads and driveway connection to State Road 15 (U.S. 17)

St. Johns River Water Management District	Transmission lines over St. Johns River and intake and discharge pipelines and structures in St. Johns River
Suwannee River Water Management District	Transmission lines over works of the District
Bradford County	Transmission lines over county roads
Clay County	Transmission lines over county roads
Columbia County	Transmission lines over county roads
Marion County	Transmission lines over county roads
Putnam County	Transmission lines over county roads
Suwannee County	Transmission lines over county roads
Union County	Transmission lines over county roads
City of Ocala	Transmission lines over city roads
City of Lake City	Transmission lines over city roads

18. The issuance of permits by the Florida Department of Transportation to allow Seminole to use, connect to, or cross over state roads has been resolved by stipulation and a condition of certification described herein.

19. The issuance of easements across the bottomlands of the St. Johns River by the Department of Natural Resources to allow Seminole to place its intake and discharge pipelines and structures within the area described in Seminole's Exhibit

18 and to allow Seminole to place transmission towers within the transmission corridor shown in the application has been resolved by recommendations of the Department of Natural Resources subject to approval of the Board.

CONCLUSIONS OF LAW

20. This proceeding was held pursuant to the Florida Electrical Power Plant Siting Act, Chapter 403, Part II, Florida Statutes, and Chapter 17-17, Florida Administrative Code, to consider the subject application for site certification.

21. Notice, in accordance with Chapter 403 and Chapter 120, Florida Statutes, and Chapter 17-17, Florida Administrative Code, has been given to all persons and parties entitled thereto, as well as the general public.

22. The purpose of the site certification hearing was to receive testimony and evidence concerning whether the location and operation of the proposed facilities 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, and to fully balance the increasing demand for electric power plant location and operation with the broad interests of the public, as provided in Chapter 403, Florida Statutes.

23. The record of this hearing consists of all pleadings and papers filed herein, including the site certification

application, as amended, the transcripts of all hearings, all orders entered by the Hearing Officer, and all evidence and exhibits properly admitted to the record.

24. Seminole has requested that certain agencies be made parties to this proceeding. The following agencies did not file notices of intent to become parties to the proceeding, thereby creating a presumption that they did not intend to participate:

a. State of Florida, Department of Natural Resources;

b. Suwannee River Water Management District;

c. Bradford County;

d. Suwannee County; and

e. City of Lake City.

The uncontroverted evidence shows, however, that Seminole will need to use, cross over, or connect to properties and works of such agencies. Accordingly, such agencies are parties to this proceeding pursuant to Sections 403.508(3)(e) and 403.509(2), Florida Statutes, and Section 17-17.11(2)(e), Florida Administrative Code.

25. Section 403.507(1)(a), Florida Statutes, provides that the Division of State Planning shall present a report as to the compatibility of the proposed electrical power plant with any state comprehensive plan. The Division of State Planning has made a report on Units 1 and 2 and its report and recommendations have been submitted and introduced

into evidence. The Division finds compatibility of Seminole Units 1 and 2 with the State Comprehensive Plan and recommends their certification.

26. Section 403.507(1)(b), Florida Statutes, requires that the Florida Public Service Commission shall prepare a report and recommendation as to the present and future needs for the electrical generating capacity to be supplied by the proposed electrical power plant and shall submit its findings to the Department of Environmental Regulation. Such a report and recommendations have been submitted and introduced into evidence. The Public Service Commission finds the need for additional electrical generating capacity and recommends the certification of proposed Units 1 and 2.

27. Section 17-17.04(5), Florida Administrative Code, requires the water management district in whose jurisdiction Units 1 and 2 are proposed to be located to prepare a report of its position of the impact of the proposed facilities on the water resources of the district. The St. Johns River Water Management District comments have been submitted and introduced into evidence. The final comments state that all substantive questions raised by St. Johns River Water Management District have been satisfactorily addressed through clarifications or amendments to the application.

28. Section 403.507(2), Florida Statutes, requires that the Department of Environmental Regulation conduct, or

contract for, studies of the proposed electrical power plant and site, including, but not limited to, (a) cooling system requirements, (b) construction and operational safeguards, (c) proximity to transportation systems, (d) soil and foundation conditions, (e) impact on suitable present and projected water supplies for this and other competing uses, (f) impact on surrounding land uses, (g) accessibility to transmission corridors, and (h) environmental impacts. Such a report and recommendations have been submitted and introduced into evidence. The Department of Environmental Regulation recommends certification of proposed Units 1 and 2, subject to the conditions of certification which are attached and have been accepted by Seminole.

29. The location and operation of proposed Units 1 and 2, as described by the evidence admitted to the record, if made subject to the conditions of certification attached, are expected to produce minimal adverse effects on human health, the environment, the ecology of land and its wildlife, and the ecology of state waters and their aquatic life.

30. The construction and operational safeguards for proposed Units 1 and 2 are technically sufficient for the welfare and protection of the citizens of Florida.

31. The certification of proposed Units 1 and 2 is consonant with the premise of abundant, low-cost electrical energy.

32. Proposed Units 1 and 2, if certified pursuant to the conditions of certification attached, will comply with the pertinent state and federal regulations concerning the prevention of significant deterioration of air quality (PSD), Section 17-2.04, Florida Administrative Code, and the application of the best available control technology (BACT), Section 17-2.03, Florida Administrative Code.

33. Certification of Units 1 and 2 will constitute permission for Seminole to use, connect to, and cross over the works and properties of the agencies described in Finding of Fact Number 17, subject to the following terms and conditions of certification:

a. Within 30 days of the entry of the Certification Order the Florida Department of Transportation (DOT) shall issue to Seminole a driveway permit for connection of a driveway to State Road 15 (U.S. 17) in accordance with DOT's Driveway Regulations Covering Private Entrances and Exits for State-Maintained Roads, Chapter 14-44.01, Florida Administrative Code.

b. DOT, Bradford County, Marion County, and Putnam County shall issue a permit for each transmission line crossing a state, county, or city road in their jurisdiction within the corridors identified in Appendix "M" to the Site Certification Application within 30 days of the submission of a completed

application for such transmission line crossing. Applications to the other counties, water management districts, and cities listed in Finding of Fact Number 17 are not required.

c. In the construction of directly associated transmission lines over roads, Seminole shall:

(1) Follow the DOT Utilities Accommodation Guide as of June 4, 1979, unless Seminole and DOT subsequently agree to the contrary.

(2) Make all crossings as nearly perpendicular to and place all towers as far from state, county, and city road rights-of-way as practicable in order to allow future widening and expansion.

(3) Not construct transmission lines across any state, county, or city bridge which is supported by pilings.

d. Within 30 days of the entry of the Certification Order the State of Florida shall issue to Seminole an easement in, upon, and across sovereignty land described as follows for construction and operation of its proposed pipeline and intake and discharge structures:

> Commencing at a C.M. at the apparent S.W. corner of Government Lot 2 of Section 18, T-9-S, R-27-E; run then S 00°05'02"E, 1354.97 feet to the South R/W of S.R. 209, as now layed out and in use; thence S 89° 39'25"W, 194.63 feet along the South R/W of S.R. 209 to a C.M.; thence S 00°51'00"E,

948.60 feet to a found Conc. Mon. on the waters edge of the St. Johns River and the P.O.B. of the herein described easement; thence continue S 00°51'00"E, 347.60 feet from the P.O.B.; thence S 35°19'53"E, 611.07 feet; S 54°40'07"W, 50.00 feet; thence N 35°19'53"W, 487.17 feet; thence S 88°59'07"W, 224.70 feet; thence N 01°00'53"W, 400.00 feet to a found C.M. on the waters edge of the St. Johns River; thence Northeasterly along the St. Johns River, 212.06 feet to a found Conc. Mon. and the P.O.B. Containing 2.7 acres more or less.

Bearings based on the Florida State Plane Coordinate System East Zone. The above described land is subject to all easements, Rights-of-Way and Covenants of records.

Issuance of this easement will constitute compliance with Condition of Certification XI 1.

e. The State of Florida shall issue an easement for a transmission line crossing the St. Johns River within the corridor identified in Appendix "M" to the Site Certification Application within 60 days of the submission of a completed application for such easement, subject to the following terms and conditions:

(1) The transmission lines and towers shall comply with all substantive standards contained in statutes and rules governing such easements.

(2) The transmission lines shall be parallel to and as close to the existing Florida Power and Light Company transmission line crossing as practicable.

(3) The towers shall be placed as far from the channel as practicable.

Issuance of this easement will constitute compliance with the second sentence of Condition of Certification XIII A.1.

34. Proposed Units 1 and 2, if certified pursuant to the conditions of certification attached, will comply with the pertinent state and federal Effluent Guidelines and Standards for Steam Electric Power Generating Point Sources, Section 17-6.01(2), Florida Administrative Code.

35. Under the Florida water quality rules, a mixing zone of reasonable size is allowable so that the higher concentration of a substance within a wastewater discharge to a river can be diluted, within the mixing zone, to the lower concentration which the river itself is required to meet at and beyond the mixing zone boundary. The mixing zone size presumptively allowable under Section 17-4.244(1)(g), Florida Administrative Code, is 31 acres (125,600 square meters). The mixing zones established by the conditions of certification are within the dimensions allowable by that provision.

36. Under the Florida water quality rules, a thermal mixing zone of reasonable size is allowable so that the

warmer temperatures of the wastewaters can be diluted, within the mixing zone, to the lower temperatures which the river itself is required to meet at and beyond the thermal mixing zone boundary. The thermal mixing zone established by the conditions of certification is well within the dimensions allowable under Section 17-3.05(1), Florida Administrative Code.

37. Under the Florida water quality rules, if the natural background of a substance within the river is higher than the applicable water quality standard, the reduction of the higher concentration within the wastewater discharge to the lower concentration applicable to the river itself under the water quality standard must be accomplished prior to discharge. There is no practicable means known or available whereby the concentrations of cadmium, lead, mercury, and zinc within the cooling waters withdrawn from the river or within the wastewater discharged to the river can be eliminated or reduced, at the point of discharge, to the water quality standards applicable to the St. Johns River should the concentrations of those substances within the river again exceed water quality standards. The requested variance should, therefore, be granted under Sections 403.201 and 403.511(2), Florida Statutes, subject to the effluent limitations for those substances established by Condition of Certification II A 12(a).

38. Section 17-6.10, Florida Administrative Code, provides for the establishment of effluent limitations which,

if met at the point of discharge, are expected to assure that the water quality standards will be met at the boundaries of the applicable mixing zones. The effluent limitations established by the conditions of certification conform to that provision.

39. Under the Florida water quality rules, a zone of discharge is allowable so that a higher concentration of a substance within a discharge to groundwater can be diluted, within the zone of discharge, to the water quality standards which the groundwaters are required to meet at and beyond the boundary of the zone of discharge. The zone of discharge established by the conditions of certification is within the limits allowable under Section 17-4.245, Florida Administrative Code.

RECOMMENDED ORDER

Having reviewed the record of this proceeding, and based upon the findings of fact and conclusions of law set forth herein, it is hereby recommended that certification, pursuant to Chapter 403, Part II, Florida Statutes, be granted to Seminole Electric Cooperative, Inc., for the construction and operation of Seminole's Plant Units 1 and 2, the associated facilities, and the directly associated transmission lines, as proposed in the amended application and evidence admitted to the record. It is further recommended that the certification include the terms and be made

subject to the conditions of certification attached hereto and to those described in Conclusion of Law Number 33.

DONE and ORDERED this 22nd day of August, 1979, in Tallahassee, Florida.

CHRIS H. BENTLEY
Hearing Officer
Division of Administrative Hearings
Room 101 Collins Building
Tallahassee, Florida 32301
(904) 488-9675

Copies furnished:

Sheri W. Smallwood, Esquire
Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301

Barrett Johnson, Esquire
Public Service Commission
300 South Adams Street
Tallahassee, Florida 32304

Larry Keesey, Esquire
Division of State Planning
Room 530 Carlton Building
Tallahassee, Florida 32301

Mr. Jack Sullivan
Withlacoochee Regional Planning Council
Post Office Box 335
Silver Springs, Florida 32688

Mr.Charles F. Justice
North Central Florida Regional Planning Council
2002 NW 13th Street
Gainesville, Florida 32601

#78-1388
Copies furnished (continuation)

Mr. Daniel Castle
Northeast Florida Regional
Planning Council
3641 Baypine Road, Suite 9
Jacksonville, Florida 32216

Mr. Brian E. Michaels
Board of County Commissioners
Putnam County
P. O. Box 1486
Palatka, Florida 32077

Lynne C. Capehart, Esquire
1601 NW 35th Way
Gainesville, Florida 32605

Board of County Commissioners
Post Office Box 1374
Palatka, Florida 32077

Mr. Frederick O. Rouse
Executive Director
St. Johns River Water
Management District
Rt. 2, Box 695
Palatka, Florida 32077

Robert Stephen Ryder, Esquire
County Attorney
P. O. Box 1030
Ocala, Florida 32670

Roderick K. Shaw, Jr., Esquire and
L. Robert Frank, Esquire
Post Office Box 2111
Tampa, Florida 33601

Philip S. Bennett, Esquire
Department of Transportation
Haydon Burns Building
Tallahassee, Florida 32301

Mr. Sandy Paul Register,
Chairman
Board of County Commissioners
Columbia County Courthouse
Post Office Drawer 1529
Lake City, Florida 32055

William A. Wilkes, Esquire
Post Office Box 838
Green Cove Springs, Florida

Seymour H. Rowland, Jr. Esqu.
City Attorney
City of Ocala
320 NW 3rd Avenue
Ocala, Florida 32670

Judith B. Brown, Esquire
St. Johns River Water
Management District
Route 2, Box 695
Palatka, Florida 32077

Gary P. Sams, Esquire
Mahoney, Hadlow & Adams
Post Office Box 5617
Tallahassee, Florida 32301

Mr. Gerald Griffis
Chairman, Board of County
Commissioners
Room 103, Union County Courtho
Lake Butler, Florida 32324

Mr. Maxie Carter, Jr.
Chairman
Board of County Commissioners
Bradford County
Post Office Box B
Starke, Florida 32091

Mr. Lynn Johnson, Chairman
Board of County Commissioners
Suwannee County Courthouse
Ohio Avenue
Live Oak, Florida

Hon. James R. Tison, Mayor
City of Lake City
Post Office Box 1687
Lake City, Florida 32055

Mr. Donald O. Morgan
Executive Director
Suwannee River Water Management
District
Post Office Drawer K
White Springs, Florida 32096

STATE OF FLORIDA
DIVISION OF ADMINISTRATIVE HEARINGS

IN RE:

SEMINOLE ELECTRIC COOPERATIVE, INC., SITE CERTIFICATION

CASE No. 79-1388

STIPULATION BETWEEN
SEMINOLE ELECTRIC COOPERATIVE, INC.
AND
FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION

It is agreed and stipulated between Seminole Electric Cooperative, Inc. and DER that the Conditions of Certification be amended as follows:

1. Figure 1 attached shall be substituted for the Figure 1 which follows page 2 of the Conditions of Certification so as to provide that one of the two air monitoring stations shall be located in St. Johns County within the area shown at a specific location to be approved by the Department.

2. Condition of Certification I B 2 shall be amended to read:

> The permittee shall operate two monitoring stations generally located as shown on Figure 1 at specific locations approved by

EXHIBIT B

the Department.

At the monitoring station in St. Johns County, the permittee shall operate a continuous ambient monitoring device for sulphur dioxide in accordance with 40 CFR, Part 53, a high volume ambient monitoring device for suspended particulates, and continuous meteorological sensors for wind speed, wind direction, dry bulb temperature and dew point.

At the monitoring station in Putnam County, the permittee shall operate an ambient monitoring device for sulphur dioxide in accordance with EPA reference methods in 40 CFR Part 53 and an ambient monitoring device for suspended particulates.

3. Condition of Certification I D 2 shall be amended to read:

"Ambient air monitoring data shall be reported to the Department quarterly commencing,

for the monitoring station in St. Johns County, one year prior to the date of commercial operation and, for the monitoring station in Putnam County, on the date of commercial operation by the last day of the month following the quarterly reporting period utilizing SAROAD or other format approved by the Department in writing."

IN WITNESS WHEREOF, the undersigned parties by and through their respective attorneys have entered into this Stipulation on the 28 day of August, 1979.

SEMINOLE ELECTRIC COOPERATIVE, INC.

By _____

Roderick K. Shaw, Jr.
Of Allen, Dell, Frank & Trinkle
P.O.Box 2111
Tampa, Florida 33601

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

By Sheri Smallwood
Attorney

CERTIFICATION OF SERVICE

I HEREBY CERTIFY that copy of the foregoing Stipulation was furnished by U.S. Mail to all persons listed on the attached Service Schedule on this the 30 day of August, 1979.

_____
Attorney

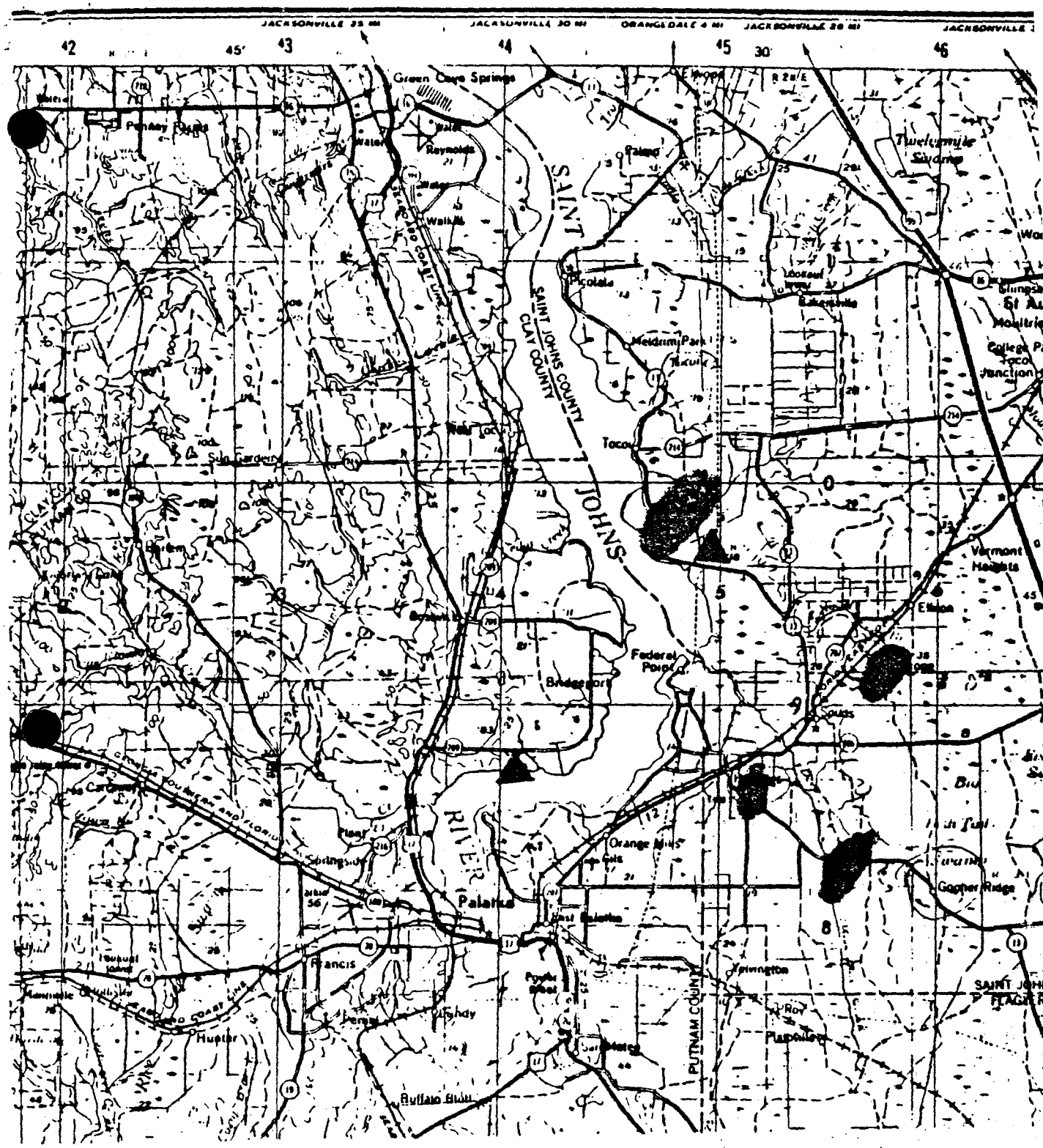

FIGURE 1. Location of Ambient Air Quality Monitoring Stations

State of Florida Department of Environmental Regulation
Seminole Electric Cooperative, Inc.
Seminole Units 1 & 2
PA 78-10
CONDITIONS OF CERTIFICATION Issued 18 September 1979

Table of Contents

State of Florida Department of Environmental Regulation
Seminole Electric Cooperative, Inc.
Seminole Units 1 & 2
PA 78-10

CONDITIONS OF CERTIFICATION — Issued 18 September 1979

I. Air

The construction and operation of Units No. 1 and 2 at the Seminole steam electric power plant site shall be in accordance with all applicable provisions of Chapters 17-2, 17-5 and 17-7, Florida Administrative Code. In addition to the foregoing, the permittee shall comply with the following conditions of certification:

I. A. Emission Limitations

1. Stack emissions from Units 1 and 2 shall not exceed the following when burning coal:

   a. SO_2 - 1.2 lb. per million BTU heat input, maximum two hour average.

   b. NO_x - 0.70 lb per million BTU heat input.

   c. Particulates - 0.03 lb per million BTU heat input.

2. The height of the boiler exhaust stack for Units No. 1 & 2 shall not be less than 675 ft. above grade.

3. Particulate emissions from the coal handling facilities:

   a. The applicant shall not cause to be discharged into the atmosphere from any coal processing or conveying equipment, coal storage system or coal transfer and loading system processing coal, visible emissions which exceed 20 percent opacity. Particulate emissions shall be controlled by use of control devices having a removal efficiency of not less than 99.9%.

   b. The applicant must submit to the Department within ten (10) working days after it becomes available, copies of technical data pertaining to the selected particulate emissions control for the coal handling facility. 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 such device if the Department determines the selected control device to be inadequate to meet the emission limits specified in 3. a. above. Such disapproval shall be issued within 30 days of receipt of the technical data.

4. Particulate emissions from the FGD sludge fixing facility shall be in compliance with Section 17-2.05(2).

B. Air Monitoring Program

1. The permittee shall install and operate continuously monitoring devices for the Units No. 1 & 2 boiler exhausts for sulfur dioxide, nitrogen dioxide and opacity. The monitoring devices shall meet the applicable requirements of Rules 17-2.08, F.A.C. The opacity monitor may be placed in the duct work between the electrostatic precipitator and the FGD scrubber.

2. The permittee shall operate the two ambient monitoring devices for sulfur dioxide as generally shown on Figure 1, in accordance with EPA reference methods in 40 CFR, Part 53 and two ambient monitoring devices for suspended particulates as generally shown on Figure 1. The monitoring devices shall be specifically located at a location approved by the Department. The frequency of operation shall be every six days commencing as specified by the Department.

3. The permittee shall maintain a daily log of the amounts and types of fuels used and copies of fuel analyses containing information on sulfur content, ash content and heating values.

4. The permittee shall provide sampling ports into the stack and shall provide access to the sampling ports in accordance with DER publication, Standard Sampling Techniques and Methods of Analysis for the Determination of Air Pollutants from Point Sources, July 1975.

5. The ambient monitoring program may be reviewed annually beginning two years after start-up of Unit No. 2 by the Department and the permittee.

6. Prior to operation of the source, the applicant shall submit to the Department a standardized plan or procedure that will allow the applicant to monitor emission control equipment efficiency and enable the applicant to return malfunctioning equipment to proper operation as expeditiously as possible.

C. Stack Testing

1. Within 60 calendar days after achieving the maximum capacity at which each unit will be operated, but no later than 180 operating days after initial startup, the owner or operator shall conduct performance tests for particulates and SO_2 and furnish the Department a written report of the results of such performance tests.

2. Performance tests shall be conducted and data reduced in accordance with methods and procedures in accordance with DER's Standard Sampling Techniques and

Methods of Analysis for the Determination of Air Pollutants from Point Sources, July 1975.

3. Performance tests shall be conducted under such conditions as the Department shall specify based on representative performance of the facility. The owner or operator shall make available to the Department such records as may be necessary to determine the conditions of the performance tests.

4. The owner or operator shall provide 30 days prior notice of the performance tests to afford the Department the opportunity to have an observer present.

5. Stack tests for particulates and SO_2 shall be performed annually in accordance with Conditions C.2, 3, and 4 above.

D. Reporting

1. For each Unit, stack monitoring, fuel usage and fuel analysis data shall be reported to the Department on a quarterly basis commencing with the start of commercial operation in accordance with 40 CFR, Part 60, Section 60.7, and in accordance with Section 17-2.08, F.A.C.

2. Ambient air monitoring data shall be reported to the Department quarterly commencing on the date of certification by the last day of the month following the quarterly reporting period utilizing the SAROAD or other format approved by the Department in writing.

3. Beginning one month after certification the applicant shall submit to the Department a quarterly status report briefly outlining progress made on engineering design and purchase of major pieces of equipment (including control equipment). All reports and information required to be submitted under this condition shall be submitted to the Administrator of Power Plant Siting, Department of Environmental Regulation, 2600 Blair Stone Road, Tallahassee, Florida 32301.

II. Water Discharges

Any discharges into waters of the State during construction and operation of Units No. 1 & 2 shall be in accordance with all applicable provisions of Chapters 17-3, Florida Administrative Code, and 40 C.F.R., 423, Effluent Guidelines and Standards for Steam Electric Power Generating Point Source Category except as provided herein. Also the permittee shall comply with the following conditions of certification:

A. Plant Effluents and Receiving Body of Water

For discharges made from the 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 and any other water 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 will be determined by the Department to be where the effluent physically enters the waters of the State.

3. Thermal Mixing Zone

The instantaneous zone of thermal mixing for cooling tower blowdown shall not exceed an area of 155 square feet. During discharge, the blowdown from the cooling towers for Units 1 & 2 shall be withdrawn at the point of lowest temperature of the recirculating cooling water prior to the addition of makeup water. The temperature at the point of discharge into the St. Johns River shall not be greater than 93 degrees F. The temperature of the water at the edge of the mixing zone shall not exceed the limitations of Paragraph 17-3.05(1)(d).

4. Chemical Wastes and Boiler Blowdown

All discharges of low volume wastes (demineralizer regeneration, floor drainage, lab drains and similar wastes), shall comply with Chapter 17-3. If violations of Chapter 17-3 occur, corrective action shall be taken. These wastewaters shall be discharged to an adequately sized and constructed treatment facility. Preoperational cleaning wastes shall be treated to comply with 40 CFR Part 423 and Chapter 17-3, F.A.C., prior to discharge. Boiler blowdown, boiler fireside wash, air preheater wash, and stack wash shall be disposed of in an adequately sized percolation pond.

5. Coal Pile and Limestone Pile

Coal pile runoff and Limestone Pile runoff from less than 10-year 24-hour rainfall shall be treated as required to limit the suspended solids to 50 mg/l and to prevent increases in turbidity to less than 50 JTU in waters of the State beyond a distance of 150 meters from the POD.

6. Cooling Tower Blowdown

The cooling tower blowdown shall contain no detectable amounts of material added for corrosion inhibition, including but not limited to zinc and chromium.

7. Chlorine

The quantity of total residual chlorine discharged in the blowdown from the cooling tower shall not exceed 0.1 mg/l at the POD nor 0.01 mg/l beyond an instantaneous mixing zone of 750 square feet. There will be no limit on the duration of discharge of chlorine.

8. pH

The pH. of all discharges shall be such that the pH be within the range of 6.0 to 8.5.

9. Polychlorinated Biphenyl Compounds

There shall be no net discharge of polychlorinated biphenyl compounds.

10. 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 zone as described herein and located within the envelopes as shown on Figure 2.

Pollutants	Instantaneous Mixing Zone	Envelope of Mixing Zones	
Ammonia	10,000 ft^2	20.235 m^2	5.0 Acres
Arsenic	8 ft^2	65 m^2	0.2 Acres
Chlorine	750 ft^2	3,654 m^2	0.9 Acres
Copper	1,000 ft^2	4,047 m^2	1.0 Acres
Iron	400 ft^2	2,024 m^2	0.5 Acres
Selenium	10 ft^2	84 m^2	0.02 Acres
Specific Conductance	8,015 ft^2	16,188 m^2	4.0 Acres
Lead		125,600 m^2	31 Acres
Mercury		125,600 m^2	31 Acres
Cadmium		125,600 m^2	31 Acres
Zinc		125,600 m^2	31 Acres

Oil and Grease		125,600 m^2	31 Acres
Chromium	25 ft^2	195 m^2	0.05 Acres

11. Variances to Water Quality Standards

In accordance with the provisions of Sections 403.201 and 403.511(2), F.S., Seminole Electric Cooperative, Inc., is hereby granted variances to the Water Quality Standards of Chapter 17-3, F.A.C., for cadmium, lead, mercury, and zinc, but only at such times as the natural background levels of the St. Johns River approach or exceed those standards; in any event, the discharge shall comply with the effluent limitations set forth in paragraph II.A.12.a.

12. Effluent Limitations

a. The following instantaneous maximum effluent limitations shall apply for cadmium, mercury, lead and zinc at the locations specified:

(I) cooling blowdown - concentrations shall not exceed four times the concentrations present in the river at Applicant's intake structure at the time of intake.

(ii) coal/limestone storage runoff - concentrations shall not exceed:

cadmium.....0.11 mg/l
mercury.....0.0022 mg/l
lead.....0.11 mg/l
zinc.....1.76 mg/l

(iii) bottom ash sluice blowdown - concentrations shall not exceed the unweighted sum of the amount per liter described in (I) above plus the following amounts per liter:

cadmium.....0.11 mg/l
mercury.....0.0055 mg/l
lead.....0.11 mg/l
zinc.....1.1 mg/l

b. The following instantaneous maximum effluent limitations shall apply to the discharge from the chemical wastewater treatment facility:

Pollutant	Effluent Limit (mg/l)

Ammonia	28.5
Aluminum	174
Arsenic	0.073
Copper	0.66
Cyanide	0.004
Chromium	0.14
Nickel	0.09
Selenium	0.04
Oil and Grease	15

B. Water Monitoring Programs

The permittee shall monitor and report to the Department the listed parameters on the basis specified herein. The methods and procedures utilized shall receive written approval by the Department. The monitoring program may be reviewed annually by the Department, and a determination may be made as to the necessity and extent of continuation, and may be modified in accordance with Condition No. XXV.

1. Chemical Monitoring

The following parameters shall be monitored as shown during discharge commencing with the start of commercial operation of the first unit and reported quarterly to the Department:

Parameter	Location	Sample Type	Frequency
Flow Intake	Intake	Recorder	Totalizer
Flow Groundwater	Well field pipeline	Recorder	Totalizer
Flow, Discharge	C.T. Outfall	Recorder	Totalizer
Conductivity	C.T. Outfall	Recorder	Continuous
pH	C.T. Outfall	Multiple Grab	Weekly
Temperature	C.T. Outfall	Recorder	Continuous
TSS	C.T. Outfall	Grab	Weekly
Chlorine, Total Residual	C.T. Outfall	Multiple Grab	Weekly
Oil and Grease	C.T. Outfall & Intake	Grab	Weekly
Metals	C.T. Outfall, Intake & Waste Treatment Facility	Multiple Grab	as noted below
Arsenic	"	"	*
Copper	"	"	*
Iron	"	"	*
Aluminum	"	"	*

Lead	"	"	**
Mercury	"	"	**
Cadmium	"	"	**
Zinc	"	"	**

*Weekly for the first three months, monthly for the next nine months, then quarterly thereafter.
**Weekly for the first three months, biweekly for the next three months, monthly for the next three months, then quarterly thereafter.

III. Groundwater

A. General

The use of groundwater from two wells for plant service water for Units 1 and 2 shall be minimized to the greatest extent practicable, but in no case shall exceed 3.9 mgd on a maximum daily basis or 0.85 mgd on an average annual basis.

B. Well Criteria

The submission of well logs and test results and location, design and construction of wells to provide plant service water shall be in accordance with applicable rules of the Department of Environmental Regulation and the St. Johns River Water Management District (SJRWMD). Total water use per month shall be reported quarterly to SJRWMD commencing with the start of construction.

C. Water Use Restriction

Groundwater is restricted to uses other than main steam condensing. Any change in the use of said water will require a modification of this condition.

D. Emergency Shortages

In the event an emergency water shortage should be declared pursuant to Section 373.175 or 373.246, F.S., by St. Johns River Water Management District for an area including the location of these withdrawal points, the Department, pursuant to Section 403.516, F.S., may alter, modify, or declare to be inactive, all or parts of Condition III. A.- F. An authorized Water Management District Representative, at any reasonable time, may enter the property to inspect the facilities.

E. Monitoring and Reporting

Seminole shall implement the following groundwater monitoring program:

1. The groundwater levels shall be monitored continuously at wells as approved by the DER and the St. Johns River Management District. Chemical analyses shall be made on samples from all monitored wells identified in this condition. The location, frequency and selected chemical analyses shall be as given in Condition III.E.4.

2. The groundwater monitoring program shall be implemented at least one year prior to operation of Seminole No. 1. The chemical analyses shall be in accord with the latest edition of Standard Methods for the Analysis of Water and Wastewater. The data shall be submitted within 30 days of collection/analysis to the St. Johns River Water Management District and to the DER Power Plant Siting Section.

3. Seminole shall install flow meters in compliance with SJRWMD specifications on all production wells.

4. After consultation with the DER and SJRWMD, Seminole shall install a monitoring well system as generally shown in Figure 3 to monitor groundwater quality in the top 40 feet of surficial aquifer. One well shall be installed to a depth greater than 40 feet but less than 100 to monitor vertical dispersion or groundwater contaminants. Monitoring well locations and designs shall be submitted to the Department and SJRWMD for review. Approval or disapproval of the locations and design shall be granted within 60 days. 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 two casing volumes. The water quality analyses shall be performed monthly during the year prior to commercial operation and two years after operation and quarterly thereafter. Results shall be submitted to the Department and the SJRWMD by the fifteenth (15th) day of the month following the month during which such analyses were performed. Testing for the following constituents is required.

Conductance	Nickel
pH	Selenium
Chloride	Chromium
Iron	Arsenic
Cadmium	Beryllium
Zinc	Mercury
Copper	Lead
Sulfate	Gross Alpha
Silver	Barium

5. After the second year of monitoring and periodically thereafter, the Department and the applicant shall review the results of the monitoring program and determine the necessity for modifying or continuing the program.

F. Leachate

1. Zone of Discharge

Leachate from the FGD/sludge landfill, coal storage pile, bottom ash sump, percolation and FGD emergency pond shall not contaminate waters of the State (including both surface and groundwaters) in excess of the limitations of Chapter 17-3, F.A.C., beyond the boundary of the site.

2. Corrective Action

When the groundwater monitoring system show a violation of the groundwater water quality standards of Chapter 17-3, F.A.C., the appropriate ponds, FGD landfill, or coal pile shall be sealed, relocated or closed, or the operation of the affected facility shall be altered in such a manner as to assure the Department that no violation of the groundwater standards will occur beyond the boundary of the site.

IV. Control Measures During Construction

A. Stormwater Runoff

During construction and plant operation, necessary measures shall be used to settle, filter, treat or absorb silt containing or pollutant laden stormwater runoff to limit the suspended solids to 50 mg/l or less at the POD during rainfall periods less than the 10-year, 24-your rainfall, and to prevent an increase in turbidity of more than 50 Jackson Turbidity Units above background in waters of the state beyond 150 meters from the POD.

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 8.5 at the POD.

B. Sanitary Wastes

Disposal of sanitary wastes from construction toilet facilities shall be in accordance with applicable regulations of the Department and appropriate local health agency. The sewage treatment plant shall be operated in accordance with Chapters 17-3, 17-16, and 17-19, F.A.C. Plans and specifications for the sewage treatment plant shall be submitted to the Departments St. Johns River Subdistrict Manager for review and approval prior to installation.

C. Environmental Control Program

An environmental control program shall be established under the supervision of a qualified person to assure that all construction activities conform to good environmental practices and the applicable conditions of certification.

The permittee shall notify the Department if unexpected harmful effects or evidence of irreversible environmental damage are detected during construction, shall immediately report to the Department and shall within two weeks provide an analyses of the problem and a plan to eliminate or significantly reduce the harmful effects or damage, and to prevent reoccurrence.

V. Solid Wastes

Solid Wastes resulting from construction or operation shall be disposed of in accordance with the applicable regulations of Chapter 17-7, F.A.C. The permittee shall submit a program for approval outlining the methods to be used in handling and disposal of solid wastes indicating at least methods for erosion control, covering, vegetation, and quality control.

Open burning in connection with land clearing shall be in accordance with Chapter 17-5, F.A.C. No additional permits shall be required, but the Division of Forestry shall be notified prior to burning. Open burning shall not occur if the Division of Forestry has issued a ban on burning due to fire hazard conditions.

VI. Operation Safeguards

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.

VII. Screening

The permittee shall provide screening of the site through the use of aesthetically acceptable structures, vegetated earthen walls and/or existing or planted vegetation.

VIII. Potable Water Supply System

The potable water supply system shall be designed and operated in conformance with Chapters 17-22, F.A.C. Information as required in 17-22.108 shall be submitted to the Department prior to construction and operation. The operation of the potable water supply system shall be certified in accordance with Chapters 17-16, F.A.C.

IX. Transformer and Electric Switching Gear

The foundations for transformers, capacitors, and switching gear necessary for Seminole Units 1 and 2 to the existing distribution system shall be constructed of an impervious material and shall be constructed in such a manner to allow complete

collection and recovery of any spills or leakage of oily, toxic, or hazardous substances.

X. Toxic, Deleterious, or Hazardous Materials

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

XI. Construction in Waters of the State.

A. No construction on sovereignty submerged lands shall commence without obtaining lease or title from the Department of Natural Resources.

B. Construction of intake and discharge structures should be done in a manner to minimize turbidity. Turbidity screens should be used to prevent turbidity in excess of 50 JTU above background beyond 150 meters from the dredging, pile driving or construction site.

C. Dredging of the intake channel and discharge pipe trench should be performed by hydraulic dredge (small "mudcat" type is suitable): clamshell or other excavating equipment is satisfactory behind cofferdams or other turbidity control devices.

D. All spoil shall be piped hydraulically or trucked to an upland disposal site of sufficient capacity to retain all material. The discharge pipe trench should be refilled with clean sand sized material.

E. Effective stabilization of submerged bottom sediments at the discharge pipe exist should be achieved and maintained during the period of operation by the placement of riprap or other suitable material.

XII. FGD/Sludge Landfill and Coal Pile

Adequate geophysical testing shall be conducted to determine if solution cavities are present under the landfill area. If such cavities are located, such cavities shall be sealed off and stabilized.

The proposed FGD sludge landfill area shall be monitored and studied pursuant to a detailed groundwater testing and monitoring program as defined in Condition III. E.

The results of the program will be used by the Department in determining whether Seminole has affirmatively demonstrated that Florida Water Quality Standards (17-3, F.A.C.) will not be violated beyond the site boundary.

If the Department determines that Seminole has failed to affirmatively demonstrate that Florida Water Quality Standards (17-3, F.A.C.) will not be violated, Seminole shall present to the Department, within 90 days of such determination, a plan of

correction, (which may include, if appropriate, an impermeable liner) for review and approval by the Department, and for timely implementation by Seminole.

During the initial years of operation of Unit 1, but not to exceed five years from start up of Unit 1, a FGD sludge disposal test and evaluation program shall be implemented in accordance with the program outline submitted to the Department on April 27, 1979 as attached and incorporated herein as Attachment 1. During the test program, any FGD sludge not utilized in the program shall be fixed so as to achieve an ultimate permeability not greater than 7x10-7 cm/sec and shall be disposed of in a manner and located so as to not interfere with the sludge testing program.

Upon completion of the test and evaluation program Seminole shall submit a proposed method of FGD sludge disposal to the Department for Review. The Department shall indicate its approval or disapproval of the program within 60 days of receipt. Seminole shall implement the approved program as soon as practical upon receipt of approval from the Department. Should the program be disapproved by the Department Seminole shall fix the FGD sludge so as to achieve a permeability not greater than 1x10-7 cm/sec and place it with the bottom layer at least eight feet thick or line it with an impermeable liner.

Upon initiation of FGD sludge disposal, a quality control program shall be implemented to insure that the permeability of the FGD sludge does not exceed prescribed levels. Construction of perimeter berms of "Fixed" FGD sludge, if any, shall be in conformance with the provisions of Chapter 17-9, F.A.C., regarding earthen dams.

XIII. Transmission Lines

Directly associated transmission lines shall be constructed and maintained in a manner to minimize environmental impacts in accordance with Chapter 403, F.S.

A. Construction

1. Filling and construction in waters of the State shall be minimized to the extent practicable. No such activities shall take place without obtaining lease or title from the Department of Natural Resources.

2. Placement of fill in wetland areas shall be minimized by spanning such areas with the maximum transmission lines span practicable.

3. Construction and access roads should avoid wetlands and be located in surrounding uplands. Any fill required in wetlands for construction but not required for maintenance purposes shall be removed and the ground restored to its original contours after transmission line placement.

4. Keyhole fills from upland areas are preferable to a single road and should be oriented as nearly parallel to surface water flow lines as possible.

5. Sufficient culverts shall be placed through fill causeways to maintain sheet flow. The number and locations of such culverts will be determined in the field by consultation with DER field inspectors.

6. Maintenance roads shall be planted with native species to prevent erosion and subsequent water quality degradation.

7. Construction activities should proceed as much as possible during the dry season.

8. Turbidity control measures, where needed, shall be employed to prevent violation of water quality standards.

9. Good environmental practices as described in Environmental Criteria for Electric Transmission Systems as published by the U.S. Department of Interior and the U.S. Department of Agriculture should be followed.

10. Any archaeological sites discovered during construction of the transmission lines shall be disturbed as little as possible and such discovery shall be communicated to the Department of State, Division of Archives, History and Records Management.

B. Maintenance

1. Vegetative removal for maintenance should be carried out in the following manner:

Vegetative clearing operations to be carried out within the corridor should follow the general standards for clearing rights-of-way for overhead transmission lines and follow good environmental practices as described in environmental criteria for Electric Transmission Systems, as published by The U.S. Department of the Interior and the U.S. Department of Agriculture, thus preserving immature tree species along the peripheries of the right-of-way. These standards define the zone that shall be cleared of all tree growth as the area between structures 10 ft. to either side of the outside conductor. The remainder of the right-of-way from the cleared area to the right-of-way limit shall be screened. This translates to mean that only trees in excess of 10 ft. in height would be removed from the outer zone except where location of the access roads necessitates complete clearing.

2. Approved Chemicals or herbicides may be used for vegetation control along the transmission line without prior approval of the Department.

XIV. Change in Discharge

All discharges or emission authorized herein 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 the 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 a new or supplemental application pursuant to Chapter 403, Florida Statutes.

XV. Noncompliance Notification

If, for any reason, the permittee does not comply with or will be unable to comply with any limitation specified in this certification, the permittee shall notify the St. Johns River Subdistrict Manager of the Department by telephone during the working day during which permittee becomes aware of said noncompliance and shall confirm this situation in writing within seventy-two (72) hours of first becoming aware of such conditions, 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 take to reduce, eliminate and prevent recurrence of the noncomplying event.

XVI. Facilities Operation

The permittee shall at all times maintain in good working order and operate as efficiently as possible all treatment or control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this certification. Such systems are not to be bypassed without prior department approval, except, during periods of when light oil is used for ignition, the FGD system may be bypassed.

XVII. Adverse Impact

The permittee shall take all reasonable steps to minimize any adverse impact resulting from noncompliance with any limitation specified in this certification, including but not limited to such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying event.

XVIII. Right of Entry

The permittee shall allow the Secretary of the Florida Department of Environmental Regulation and/or authorized representatives, 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 pollutants, and

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

XIX. Revocation or Suspension

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

XX. Civil and Criminal Liability

This certification does not relieve the 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 the permittee from any responsibilities or penalties established pursuant to any other applicable State Statutes or regulations.

XXI. 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 applicant will obtain title, lease or right of use form the State of Florida, to any sovereign submerged lands occupied by the plant, transmission line structures, or appurtenant facilities.

XXII. 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.

XXIII. 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.

XXIV. Review of Site Certification

The certification shall be final unless revised, revoked or suspended pursuant to law. At least every five years from the date of issuance of this certification or any National Pollutant Discharge Elimination System Permit issued pursuant to the Federal Water Pollution Control Act Amendments of 1972, for the plant units, the Department shall review all monitoring data that has been submitted to it during the proceeding five-year period, for the purposes 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 its review and recommendations to the permittee. Such review will be repeated at least every five years thereafter.

XXV. 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 monitoring, testing and evaluation programs, sampling, groundwater, mixing zones, zones of discharge or variances to water quality standards, or location of transmission line corridors within areas already approved at the land use hearing.

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