UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IV
345 COURTLAND STREET
ATLANTA GEORGIA 30365

MAR 12 1982

REF: 4AW-AF

CERTIFIED MAIL RETURN RECEIPT REQUESTED

Mr. Dale A. Moehle
Division Chief
Jacksonville Electric Authority
P.O. Box 53015
Jacksonville, Florida 32201

Re: PSD-FL-010

Dear Mr. Moehle:

Review of your May 28, 1980 application to construct a 1200 MW electric generating station (plus two (2) 127 MMBtu auxiliary boilers) in Duval County, Florida has been completed. The construction is subject to rules for the Prevention of Significant Air Quality Deterioration (PSD) contained in 40 CFR §52.21. The U. S. Environmental Protection Agency performed the preliminary determination concerning the proposed construction and published a request for public comment on October 29, 1981. The only comments received were submitted by your company.

The Environmental Protection Agency has determined that the construction as described in the application meets all the applicable requirements of 40 CFR §52.21. Accordingly, enclosed with this letter is a Permit to Construct - Part I Specific Conditions and Part II General Conditions. This authority to construct is based solely on the requirements of 40 CFR §52.21, the federal regulations governing significant deterioration of air quality.

It does not authorize construction for the purposes of the NPDES program. Under that program, new source facilities may not commence construction prior to final agency action on the NPDES permit (40 CFR, §122.66). Your proposed facility has been determined to be a new source under Section 306 of the Clean Water Act, and environmental review under the National Environmental Policy Act is proceeding. Therefore, from an EPA permitting standpoint, you may not begin construction until after completion of the NEPA review process and final issuance of the Final Environmental Impact Statement (FEIS) and NPDES permit.

Please be advised that a violation of any condition issued as part of this approval, as well as any construction which proceeds in material variance with information submitted in your application, will be subject to enforcement action.

This final permitting decision is subject to appeal under 40 CFR §124.19 by petitioning the Administrator of the U. S. EPA within 30 days after receipt of this letter of approval to construct. The petitioner must submit a statement of reasons for the appeal and the Administrator must decide on the petition within a reasonable time period. If the petition is denied, the permit becomes immediately effective. The petitioner may then seek judical review.

Authority to modify this facility will take effect on the date specified in the permit. The complete analysis which justifies this approval has been fully documented for future reference, if necessary. Any questions concerning this approval may be directed to Dr. Kent Williams, Chief, New Source Review Section, Air and Waste Management Division at (404) 881-4552.

Sincerely yours,

Charles R. Jeter
Regional Administrator

Enclosures

PSD-FL-010

PERMIT TO CONSTRUCT UNDER THE RULES FOR THE
PREVENTION OF SIGNIFICANT DETERIORATION OF AIR QUALITY

Pursuant to and in accordance with the provisions of Part C, Subpart 1 of the Clean Air Act, as amended, 42 U.S.C. §7470 et seq., and the regulations promulgated thereunder at 40 C.F.R. §52.21, as amended at 45 Fed. Reg. 52676, 52735-41 (August 7, 1980),

Jacksonville Electric Authority
P.O. Box 53015
233 W. Duval
Jacksonville, Florida 32201

is hereby authorized to construct/modify a stationary source at the following location:

St. Johns River Power Park
Duval County, Florida

UTM Coordinates: 446.9 Km East - 3366.3 Km North

Upon completion of this authorized construction and commencement of operation/production, this stationary source shall be operated in accordance with the emission limitations, sampling requirements, monitoring requirements and other conditions set forth in the attached Specific Conditions (Part I) and General Conditions (Part II).

This permit shall become effective on MAR 12 1982

If construction does not commence within 18 months after the effective date of this permit, or if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time this permit shall expire and authorization to construct shall become invalid.

This authorization to construct/modify shall not relieve the owner or operator of the responsibility to comply fully with all applicable provisions of Federal, State, and Local law.

MAR 12 1982
Date Signed

Charles R. Jeter
Regional Administrator

Table 1. EMISSIONS SUMMARY OF THE PROPOSED JEA POWER GENERATING PLANT

Pollutant	Potential Emissions[a] (Tons per Year)	PSD Significance Levels (Tons per Year)
SO_2	41,800	40
PM	1670	25
NO_x	32,700	40
CO	2,870	100
VOC	28[b]	40

[a]Potential emissions calculations are based on a continuous maximum operating capacity.

[b]Applicant estimated 0.0005 lb VOC/MMBtu (27 tons/yr) average emissions rate from the boilers.

Table 2. Fugitive Emissions and Control Summary

Process	Type	Amount	Factor	Control	Technique	Emissions (Grams/Sec)
Ship Unloading	Grab Bucket	10,000 Tons/Day	0.4 lb/Ton[a]	(99.9%)[b]	Dry Collection on Hoppers	0.04
Ship Unloading Transfer Points	6 Points	10,000 Tons/Day	0.2 lb/Ton[c]	(99.9%)[b]	Dry Collection	0.06
Ship Unloading Transfer Points	3 Points	10,000 Tons/Day	0.2 lb/Ton[c]	(97%)[b]	Wet Suppression	0.95
Ship Unloading Facility Train	Loading Shed	10,000 Tons/Day	0.4 lb/Ton[a]	(99.9%)[b]	Dry Collection	0.02
Ship Unloading Facility Coal Surge Pile	Active	30 Acres	13 lb/Acre/Day[a]	(90%)[a]	Wetting Agent	0.20
Rail Car Unloading	Rotary Dumper	10,000 Tons/Day	0.4 lb/Ton[a]	(97%)[b]	Wet Suppression	0.63
Coal Handling Transfer Points	2 Points	10,000 Tons/Day	0.2 lb/Ton[c]	(99.9%)[b]	Dry Collection	0.02
Coal Handling Transfer Points	2 Points	3,300 Tons/Day	0.2 lb/Ton[c]	(99.9%)[b]	Dry Collection	0.01
Coal Handling Transfer Points	6 Points	3,300 Tons/Day	0.2 lb/Ton[c]	(97%)[b]	Wet Suppression	0.62
Coal Handling Transfer Points	7 Points	5,000 Tons/Day	0.2 lb/Ton[c]	(99.9%)[b]	Dry Collection	0.04
Coal Storage at Plant	Active	8 Acres	13 lb/Acre/Day[a]	(90%)[a]	Wetting Agent	0.05
Coal Storage at Plant	2 Inactive Piles	15 Acres	3.5 lb/Acre/Day[a]	(99%)[a]	Wetting Agent	0.01
Limestone Unloading	Rail Dumper	750 Tons/Day	0.4 lb/Ton[a]	(97%)[b]	Wet Suppression	0.05
Limestone Transfer	1 Point	750 Tons/Day	0.2 lb/Ton[a]	(99.9%)[b]	Dry Collection	0.001
Cooling Towers	Drift	2 x 243,500 gal/min	51,450 ppm solids (maximum) (40% < 50 microns diameter)	99.998%	Drift Eliminators	12.66
Solid Waste Disposal Area	Active	10 Acres	13 lb/Acre/Day[a]	(90%)[a]	Wetting Agent	0.07

a Pedco, 1977
b Stoughton, 1980
c USEPA, 1979

Table 3. NAAQS ANALYSIS

Pollutant/ averaging time	Monitored[a] background concentration ($\mu g/m^3$)	Maximum[b] projected concentration ($\mu g/m^3$)	Total concentration ($\mu g/m^3$)	NAAQS ($\mu g/m^3$)
SO_2				
3-hour	90	987	1077	1,300
24-hour	21	195	216	365
annual	4	13	17	80
PM				
24-hour	50	30	80	150
annual	27	3	30	75
NO_2				
annual	10	10	20	100
CO				
1-hour	--[c] 5200	108[d]	5308	40,000
8-hour	--[c] 4500	<100[d]	4600	20,000

[a] These values do not include contributions from the JEA Northside Plant and the St. Regis Paper Co.

[b] These concentrations include contributions from the proposed JEA steam electric generating station, the existing JEA Northside Plant and the existing St. Regis Paper Co.

[c] These values were estimated from the projected SO_2 ambient air concentrations based on worst-case operating load and meteorological conditions.

Table 4. CLASS II INCREMENT ANALYSIS

Pollutant/ averaging time	Maximum[a] Class II increment consumption (ug/m3)	PSD Class II increment (ug/m3)
SO_2		
3-hour	346	512
24-hour	44	91
annual	2	20
PM		
24-hour	10	37
annual	2	19

[a]These values include contributions from all increment consuming sources impacting the ambient air quality within 50 kilometers of the proposed new source, including the proposed JEA steam electric generating station. Five years of meteorological data was used in the analysis; therefore, these values represent the highest, second highest concentrations.

Table 5. CLASS I INCREMENT ANALYSIS

Pollutant/ averaging time	Maximum[a] Class I increment consumption (ug/m^3)	PSD Class I increment (ug/m^3)
SO_2		
3-hour	19	25
24-hour	4	5
annual	<1	2
PM		
24-hour	<1	5
annual	<1	10

[a]These values include contributions from all increment consuming sources within 100 kilometers of the Class I area including the proposed JEA electric steam generating station. Five years of meteorological data was used in the analysis; therefore, these values represent the highest, second highest concentrations.

Table 6. ALLOWABLE EMISSION LIMITS
(lb/hour; lb/MMBtu)

Emission Unit	SO_2	NO_x	PM	Opacity (Percent)
1. Steam generating boiler no. 1 (6,144 MMBtu/hr maximum heat input)	4,669; 0.76 (30 day rolling average)	3,686; 0.6	184; 0.03	20
2. Steam generating boiler no. 2 (6,144 MMBtu/hr maximum heat input)	4,669; 0.76 (30 day rolling average)	3,686; 0.6	184; 0.03	20
3. Auxiliary boilers (254 MMBtu/hr maximum heat input total)	203; 0.8		25.0; 0.1	20
4. Ship unloading (Grab Bucket)			0.32	10
5. Ship unloading transfer points (6 dry collection points)			0.1 (ea.)	10
6. Ship unloading (3 wet suppression points)			7.5	10
7. Ship unloading facility train (loading shed)			0.2	10
8. Ship unloading facility coal storage pile (30 acres)			1.6	10

Table 6. ALLOWABLE EMISSION LIMITS
(lb/hour; lb/MMBtu)
(continued)

Emission Unit	SO_2	NO_x	PM	Opacity (Percent)
9. Rail car unloading (Rotary Dumper)			5	10
10. Coal handling transfer points (6 wet suppression points)			5 (each)	10
11. Coal handling transfer points (1 dry collection)			0.1 (each)	10
12. Coal storage at plant (8 acres active)			0.4	10
13. Coal storage at plant (2-15 acre inactive piles)			0.1	10
14. Limestone unloading (rail dumper)			0.1	10
15. Limestone transfer points			0.4 (each)	10
16. Cooling towers			67 (each tower)	N/A