

# **CITY OF JACKSONVILLE**

***PRELIMINARY DOCUMENT SUBMISSION IN SUPPORT  
OF MAYORAL REQUEST THAT THE  
FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION  
REOPEN THE SITE CERTIFICATION  
IN THE CASE OF***

**AES/CEDAR BAY, INC./SEMINOLE KRAFT CORPORATION  
CO-GENERATION PROJECT  
JACKSONVILLE, FLORIDA**

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**AES/CEDAR BAY, INC./SEMINOLE KRAFT CORPORATION  
CO-GENERATION PROJECT  
JACKSONVILLE, FLORIDA**

OFFICE OF THE MAYOR

ED AUSTIN  
MAYOR

December 9, 1991

JACKSONVILLE, FLORIDA  
32202

Secretary Carol Browner  
Florida Department of Environmental Regulation  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

RE: AES/Cedar Bay, Inc. - Seminole Kraft Corporation  
Co-Generation Project

Dear Secretary Browner:

I have reason to believe that Seminole Kraft Corporation, a co-applicant with AES/Cedar Bay, Inc. for a co-generation plant in Jacksonville, misled the Siting Board, your Department and the City of Jacksonville on a material point. One of the primary benefits of the AES project was the closure of Seminole Kraft's old bark and oil-fired boilers, which were to be replaced by AES/Cedar Bay's new coal-fired circulating fluidized bed boilers. It now appears that months before the Governor and Cabinet approved the application for site certification, Seminole Kraft Corporation had decided, and failed to disclose, plans to continue to use its old bark and power boilers. Accordingly, I request that you conduct any investigations you deem appropriate under Rule 17-17.221, Florida Administrative Code, with a view to suspending or revoking the site certification.

In November, 1988, AES and Seminole Kraft jointly applied for site certification for an electric power co-generation plant that included building a modern recovery boiler to replace two aging recovery boilers that could not economically meet the November, 1992, total reduced sulphur standards. At the time the application was submitted, Seminole envisioned continuing pulp and paper manufacturing, using the new recovery boiler to provide recovered chemicals, steam and electricity to the plant. Seminole would shut down its bark and oil-fired boilers and rely on AES's new circulating fluidized bed boilers for some of its steam needs. The applicants described the project in their application for site certification in the following terms:

The AES/Cedar Bay co-generation project is an integrated power complex to be built on an existing industrial site in Jacksonville, Florida. The co-generation plant will produce 225 MW of electricity for sale to Florida Power and Light



Carol Browner, Secretary  
December 9, 1991  
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Company (FP&L), as well as process steam for sale to the adjacent Seminole Kraft Corporation paper mill.

The new kraft black liquor recovery boiler (KRB) system, owned and operated by Seminole Kraft, will burn black liquor solids, and produce 1,250 psig steam, replacing the three existing recovery boilers. A new automatic extraction condensing turbine generator will generate 42 MW of electric power for internal mill consumption as well as 600 psig and 175 psig steam for the kraft mill processes. The existing multiple effect evaporators and smelt dissolving tanks will also be replaced as part of this project.

Offsets from the elimination and replacement of old equipment with higher production levels at the mill will minimize the project's environmental impacts. Eight existing boilers at the mill will be shut down; three oil-fired and two bark-powered boilers and three kraft recovery boilers. The new CFB boilers will replace the power boilers processed steam generation, and the old kraft recovery boilers will be replaced with a modern low odor unit.

In August, 1989, Seminole applied to the Florida Department of Environmental Regulation for a construction permit to build the new recovery boiler described in the site certification application, and which was required to meet the reduced TRS standards.

In October, 1989, months before the first hearings on the site certification application, Seminole calculated it would cost more than \$230-million to build the new recovery boiler and modernize the pulp and paper machinery. It was determined that these improvements would make the company marginally profitable, at best. Accordingly, only months before the hearings on site certification, Seminole explored the possibility of converting the mill to a 100% recycle paper operation. The conversion would eliminate both the need for the new recovery boiler in the product process and the cost of modernizing the associated equipment. It would also reduce the internal steam and electrical requirements.

On January 4, 1990, weeks before the site certification hearings, Seminole amended the certification application to delete the new recovery boiler. At the hearing, Seminole Kraft explained that it planned to convert its facilities to a 100% recycling operation, and how recycling would eliminate the need for the recovery boilers and all other sources of TRS emissions. What was not explained was how Seminole Kraft would generate or obtain the 42 MW of electricity and 600 psig steam that the recovery boiler, eliminated under the 100% recycling operation, would have supplied.

Carol Browner, Secretary  
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On February 16, 1990, Seminole Kraft wrote to the Department of Environmental Regulation requesting an amendment to the construction permit for the kraft recovery boiler that had once been part of the site certification package. Because the 100% recycle option was still under review, Seminole wanted to retain the flexibility of proceeding to construct the recovery boiler under the permit, or convert to recycling, shut down the old recovery boilers and retain the emission credits it would earn by eliminating the old TRS producing boiler system. The credits would be used to offset emissions from a power boiler if needed. In the request for amendment, Seminole stated "We hope to develop a project to use recycled fibre on the No. 1 paper machine in the future, and if AES cannot supply the required steam, we would like to use the credible emissions from the recovery boilers for our power boiler to supply steam to the No. 1 paper machine."

In April, 1990, Seminole notified DER that it had decided to convert the mill to a 100% recycle operation. That confirmed that a new kraft recovery boiler would not be built to provide steam and electricity. At a meeting on December 3, 1991, Mr. David Keheres, the AES/Cedar Bay Project Manager, told City counsel that Seminole had asked AES/Cedar Bay whether it could provide the electricity and steam Seminole had expected from its new kraft recovery boiler. Mr. Keheres explained that AES told Seminole that it could not. On December 4, 1991, Seminole Kraft General Manager Larry Stanley told City counsel that in April, 1990, after conferring with AES, the company decided to use the old bark and oil-fired boilers to meet that requirement. On December 6, 1991, Seminole Kraft issued a press release in which it stated "Environmental permitting agencies have been aware at least since October, 1990, of the likelihood that Seminole Kraft would seek permits for the refurbishing and reopening of two of its bark boilers."

Nevertheless, Seminole Kraft did not amend its application for site certification to alert the parties to the proceedings of its new plan to continue using the old boilers. (Yet, Seminole Kraft had amended its application for certification in January, 1990, when conversion to recycling was only an option in the evaluation stage). It did not alert the Governor and Cabinet, sitting as the State Siting Board, of this decision prior to the Board's meeting in February, 1991. Neither Seminole nor AES/Cedar Bay amended their air quality modeling data to reflect the projected emissions from the continued use of the old bark and oil-fired boilers and the elimination of the emissions from the new kraft recovery boiler. Moreover, the applicants agreed to Condition II.D, Contemporaneous Emission Reductions, which provides

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

Carol Browner, Secretary  
December 9, 1991  
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and made incapable of operation, and shall turn in their operation permits to the Division of Air Resources Management's Bureau of Air Regulation, upon completion of the initial compliance tests on the AES/Cedar Bay 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. BESD shall be specifically informed in writing within 30 days after each individual shutdown of the above-referenced equipment. This requirement shall operate as a joint and individual requirement to assure common control for purpose of insuring that all commitments relied on are in fact fulfilled.

Unquestionably, the City of Jacksonville, the Governor and Cabinet and the Department of Environmental Regulation envisioned that those specifically named and numbered boilers would be "permanently shut down and made incapable of operation."

Seminole Kraft's decision to use the old boilers is inconsistent with the application as it was presented to the Governor and Cabinet, as well as the parties to the certification process. Therefore, as Mayor of the City of Jacksonville, I strongly urge you to investigate this matter thoroughly, suspend the site certification, and reopen the permitting process on AES to determine what the overall impact or air quality would be.

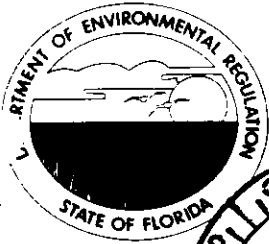
Sincerely,



Ed Austin, Mayor  
City of Jacksonville

cc:  
City Council Members  
General Counsel  
Terry Cole, Esq.  
T. R. Hainline, Esq.

*Page*



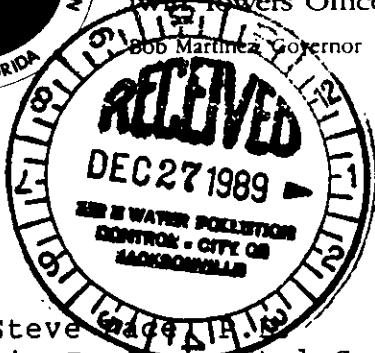
# Florida Department of Environmental Regulation

Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Bob Martinez, Governor

Dale Twachtman, Secretary

John Shearer, Assistant Secretary



December 26, 1989

Steve Pace, A.A.  
Bio-Environmental Services Division  
421 West Church Street  
Jacksonville, FL 32202-4111

Re: AES/Cedar Bay Cogeneration Project PA 88-24

Dear Mr. Pace:

Enclosed please find amendments 4 and 5 for the AES Cedar Bay Project.

Sincerely,

*Hamilton S. Oven, Jr.*

Hamilton S. Oven, Jr., P.E.  
Administrator, Siting  
Coordination Section  
Division of Air Resources  
Management

December 21, 1989

Mr. Hamilton S. Owen, Jr.  
Administrator, Siting Coordination Section  
Division of Air Resources Management  
Department of Environmental Regulation  
2000 Blair Stone Road  
Tallahassee, Florida 32399

Dear Mr. Owen:

Enclosed are the original and 45 copies of Amendment 5 to the Site Certification Application for the Cedar Bay Cogeneration Project. Also enclosed is a summary description of the changes made by this amendment.

This amendment includes a minor refinement of the project site arrangement. Figure 3.2-1 is revised. Other figures which show the proposed site arrangement should also be considered as incorporating these refinements.

The amendment also includes a revised construction dewatering plan. The dewatering water is now directed to the St. Johns River via the Seminole Kraft existing once through cooling water rather than to the Broward River via the construction runoff pond. Considerable additional detail is included to describe the estimates of construction dewatering water quality and the expected interactions with onsite test well data.

The variance and mixing zone requests associated with the construction dewatering discharges are revised through the use of the latest water quality sampling results from the onsite test wells and the Broward River. Existing water quality of the St. Johns River is also considered. Mixing zones calculations are not included with this letter, but will be submitted during the week of January 2, 1990.

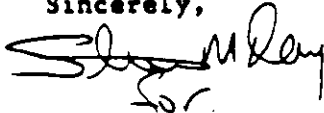
This letter also serves as official notification that AES Cedar Bay, Inc., agrees to reduce  $\text{NO}_x$  emissions for the CFB boilers from 0.36 to 0.29 lb/MBtu. This reduced emission rate is made possible by the most recent guarantee of 0.29 lb/MBtu provided by the intended boiler manufacturer. This proposed limitation is revised on page 3-19 of the application, even though analyses within the application are based on 0.36 lb/MBtu. The currently proposed emissions of 0.29 lb/MBtu will reduce the  $\text{NO}_x$  emissions from the cogeneration plant given in Table 3.4-2 from 4,676 to 3,767 tons per year. In addition, the BACT evaluation will change so that the additional incremental cost for removal of  $\text{NO}_x$ , when comparing the CFB boilers alone and when equipped with SNCR, increases from about \$1,400 per ton to about \$2,000 per ton of  $\text{NO}_x$  removal. Ambient air quality impacts

The logo for AES Cedar Bay Inc. features the letters 'AES' in a bold, stylized font, followed by a diagonal slash and the words 'Cedar Bay' in a serif font, with 'Inc.' in a smaller font to the right.



also will show an even greater improvement with this proposed lower emission limit. This reduced emission limit is possible through the use of CFB boilers and innovative combustion technology. The proposed emission rate is less than half of the applicable New Source Performance Standard (NSPS) and will be the lowest NO<sub>x</sub> emission rate for any coal fired plant in Florida.

Sincerely,



Jeffrey V. Swain  
Project Director

Enclosure

cc: Mr. Robert Cooper, Environmental Protection Agency (5 copies)  
Mr. Steve Tribble, Florida Public Service Commission (3 copies plus  
3 Volume 1 only)  
Mr. Steven M. Day, Black & Veatch  
Mr. Terry Cole, Esq., Oertel Hoffman Fernandez & Cole  
Mr. Richard Maquire, Esq., City of Jacksonville  
Ms. Kathryn Menella, Esq., St. Johns River Water Management District  
Ms. L. Kathryn Funchess, Esq., Department of Community Affairs  
Mr. William Bostwick, Esq.  
Mr. Earl L. Barker, Jr., Esq.

10. Appendices.

The pertinent applicant information follows the Preface.

PROJECT INFORMATION

The AES Cedar Bay Cogeneration Project is an integrated power complex to be built on an existing industrial site in Jacksonville, Florida (Figure A). The cogeneration plant will produce 225 MW of electricity for sale to Florida Power and Light Company (FP&L) as well as process steam for sale to the adjacent Seminole Kraft Corporation paper mill. The project also includes installation of a new kraft recovery boiler system required to modernize the paper mill (Figure B).

The proposed cogeneration plant will burn fuel made up of approximately 96 percent coal and 4 percent bark in three circulating fluidized bed (CFB) boilers. These technically advanced boilers produce steam at 1,800 pounds per square inch gauge (psig) for a new double automatic extraction condensing turbine generator. This process will generate 225 MW as well as 640,000 lb/h of 175 psig and 75 psig process steam for the mill. These boilers will be owned and operated by AES-CB (Figure C).

The new kraft black liquor recovery boiler (KRB) system, owned and operated by Seminole Kraft, will burn black liquor solids, and produce 1,250 psig steam, replacing the three existing recovery boilers. A new automatic extraction condensing turbine generator will generate 42 MW of electric power for internal mill consumption as well as 600 psig and 175 psig steam for the kraft mill processes. The existing multiple effect evaporators and smelt dissolving tanks will also be replaced as a part of this project.

Offsets from the elimination and replacement of old equipment with higher pollution levels at the mill will minimize the project's environmental impacts. Eight existing boilers at the mill will be shut down; three oil-fired and two bark-fired power boilers and three kraft recovery boilers. The new CFB boilers will replace the power boilers process steam generation and the old kraft recovery boilers will be replaced with a modern low-odor unit.

## PROJECT IMPACTS

### Air

By shutting down old equipment at the paper mill, utilization of modern technology, and installation of stacks consistent with good engineering practices, the project will result in numerous benefits to the environment. Improvements will be observed in both the net annual emissions (the total amount of emissions from the project in one year), and in ambient impacts (the effects of the emissions on air quality). These improvements include reductions in the ambient concentration of sulfur dioxide (SO<sub>2</sub>), particulate matter, volatile organic compounds (VOC), and total reduced sulfur (TRS), an odor-producing sulfur compound. Specific impacts include the following.

- SO<sub>2</sub>--Maximum potential annual emissions will be lower than representative emissions from existing mill sources. In addition, maximum ambient impacts will be dramatically reduced as a result of this project.
- TRS--Odor causing emissions will be reduced by more than 70 percent from the current KRB's permitted emissions.
- Total Suspended Particulates (TSP)--Emissions will be significantly lower. Ambient impacts will also be significantly reduced.
- Particulate Matter Less Than 10 um (PM-10)--Emissions and ambient impacts will be reduced.
- VOC--Emissions will be reduced. Ambient impacts will be significantly reduced.
- NO<sub>x</sub>--Emissions will increase, but will be well within the New Source Performance Standards. Ambient impacts will be significantly below applicable air quality standards.
- CO--Emissions will increase, but net ambient impacts will be significantly below applicable air quality standards.

Air emission control features on the new equipment will include the following.

- Circulating Fluidized Bed Boilers.
  - Limestone injection for SO<sub>2</sub> reduction.

existing internal generation and the 42 MW generation is below the 75 MW threshold in Section 403.506 Florida Statutes (1987).

In the following two orders, the FPSC applied the Section 403.519 criteria to determine the need for generating facilities not owned by electric utilities.

- Florida Crushed Stone--125 MW net, Order No. 11611, February 14, 1983<sup>1</sup>.
- Pasco County Waste Resource Recovery Facility--29 MW net, Order No. 17752, June 26, 1987<sup>2</sup>.

The Applicants request that the FPSC take administrative notice of these need determinations as providing guidance on applying the Section 403.519 criteria to the proposed project.

In addition to fulfilling the requirements of Rule 25-22.081 Florida Administrative Code, this chapter will demonstrate the following additional benefits which support the need for the project.

- Energy
  - Provides electricity to help meet increased needs in Florida.
  - Ratepayers benefit from below avoided cost pricing.
  - Project is consistent with Florida's goal to reduce dependence on oil and gas and move towards clean coal technology.
  - Cogeneration of steam and electricity results in higher thermal efficiencies, allowing a reasonable rate of return on capital while maintaining attractive product prices.
- Environmental
  - Significant reduction in total reduced sulfur emissions will improve the odor situation in Jacksonville.
  - Reductions in other air pollutants (SO<sub>2</sub>, NO<sub>x</sub>, particulate, etc.) due to offsets from existing oil fired boilers which will be shut down.
  - Land conservation due to location on existing industrial site.

The cogeneration plant will consist of three coal fired circulating fluidized bed boilers, an automatic extraction condensing turbine generator, and associated equipment. Net plant output will be approximately 225 MW while supplying normal steam load (approximately 640,000 lb/h) to the paper mill. Section 3.2 of this document provides a more detailed technical description of the cogeneration plant facilities. None of the power generated with the fluidized bed units will be sold to the mill.

The Cedar Bay project will also include new equipment to modernize the paper mill. The major components include a chemical recovery boiler, a 42 MW turbine generator (for the mill's internal load), concentrator, and multiple effect evaporators. Seminole Kraft will operate and maintain the new mill facilities as part of their mill operation.

A total of eight boilers in the existing facility will be shut down as part of the AES Cedar Bay Project. This old equipment will be replaced by three new coal fired fluidized bed boilers for electric and steam production and one chemical recovery boiler. The amount of steam production (used for internal chemical process applications) with the new equipment will remain approximately the same as with the old equipment.

Seminole Kraft will continue to own all of the plant site, but will lease to AES the land required for the new facilities. AES will operate and maintain only the fluidized bed power plant portion of the facility. AES is committed to close coordination and communication in establishing a well run and efficient production facility. The fluidized bed power plant portion of the facility is capable of independent operation if something were to happen to the paper mill.

The AES Cedar Bay Cogeneration Project Site is located in Duval County at 9469 Eastport Road, Jacksonville, Florida adjacent to the Seminole Kraft paper mill plant site (see Figures 2.1-1, 2.1-2, and 2.1-3). The plant location is north northeast of the center of the City of Jacksonville, approximately 9 miles from the downtown area. The plant site is between the Broward River on the west and Eastport Road on the east.

Financial Closing

November 1989

Commercial Operation

Paper mill equipment

February 1992

Cogeneration plant

July 1992

#### 1.3.8 Internal Benefits of the Project

Applied Energy Services' corporate strategy is to be a low-cost, long-term supplier of electricity and steam. The Cedar Bay project provides an ideal opportunity to serve two customers in need of our products at reasonable rates and with minimal environmental impact. Cogeneration of steam and electricity allows more efficient use of fuel, resulting in a profitable product while still maintaining attractive product prices. Use of coal will insulate our customers from the volatility of oil and gas prices.

Seminole Kraft Corporation, the paper mill operator, will reap many benefits from the project. The mill's long-term economic viability will be enhanced by the availability of low-cost steam; old inefficient oil fired boilers will be shut down; with the boiler output replaced by AES Cedar Bay's coal fired Circulating Fluidized Bed Cogeneration Project. Job security for the 350 mill employees will be strengthened and the area will continue to enjoy the indirect economic benefits (jobs, an annual payroll of \$23,000,000, purchases, taxes, etc.) from the mill.

The new paper mill equipment will replace high maintenance and low efficiency facilities currently at the mill. Most important, perhaps, will be the significant environmental improvements that will result from the project, which are discussed in the following section.

The power generation and steam production facility (electric generation sales to Florida Power & Light and steam sales to Seminole Kraft) is owned and operated separately from the Seminole Kraft facility and can fill the electric power sales commitments even if the paper mill is not operational.

#### 1.3.9 Regional and State Benefits

The electricity produced at the AES Cedar Bay project will provide Florida ratepayers with many benefits.

Models used to project peak demand and energy for Peninsular Florida utilities are presented in the 1986 Annual Planning Hearing, Forecast Document<sup>12</sup>.

The Peninsular Florida forecast was developed through an aggregation methodology which totaled the individual peninsular utility projections. This technique was chosen over a statewide forecast model in order to take advantage of the expertise of the individual utility forecasters. Individual utilities also are able to model and account for service territory specifics which may be overlooked in a state model forecast. Finally, a statewide model forecast would be difficult to disaggregate into individual utility forecasts.

The AES Cedar Bay Project will significantly contribute to the PSC's goal of reducing oil consumption. The AES Cedar Bay Project will reduce statewide oil consumption approximately 2.2 million barrels per year (based on the assumptions in Table 1.4-3) by displacing future oil consumption.

Additional oil backout from the shutdown of the oil fired boilers for site generated steam will result from the approval of the AES Cedar Bay Project. The annual consumption of oil in these existing boilers is approximately 0.8 million barrels per year.

In addition to reducing oil consumption, the AES Cedar Bay Project has the advantage of an effective heat rate for the electrical production of approximately 8,200 Btu/kWh which is a significantly better heat rate than can be obtained in any other coal burning technology. This lower heat rate implies lower air and thermal emissions, as well as lower Seminole Kraft pollution offsets than can be achieved through the separate production of electricity and steam.

The use of coal by the AES Cedar Bay Project is another factor supporting the need for the project. Using coal insulates the state's ratepayers from potential volatility in fuel prices that are historically linked to oil and gas pricing. Coal historically has been more stable and there is an abundant US supply. The use of coal also allows fuel to be obtained domestically, thus assuring the supply of electricity in the event of foreign supply interruptions.

it is also possible that the coal supply may change in the future with the renegotiation of coal supply contracts. To provide the necessary design flexibility to accommodate the use of coals with a wide range of properties, a generalized design-basis coal has been selected for use with the steam generators and particulate removal system. Designing these major components to handle this coal will provide the overall system design flexibility to burn other coals with similar properties. Properties of the design-basis coal are shown in Table 3.3-1.

The three steam generators will also be designed to burn wood waste, consisting primarily of bark, in conjunction with the primary fuel. Wood waste will be provided from the adjacent Seminole Kraft pulp and paper mill. Transport, storage, and firing equipment for wood waste combustion, however, will be provided for only two of the three steam generators. Each steam generator will be capable of firing wood waste at a rate equivalent to 10 percent of the total heat input to the steam generator at maximum continuous rating. Within the control range of the steam generator, the wood waste feed rate will be constant, with the load fluctuations handled by adjusting the primary fuel feed rate. Typical properties of wood waste are shown in Table 3.3-2.

The steam generators will be started with No. 2 fuel oil. During periods of low load operation, No. 2 fuel oil will also be used for stabilization. The emergency fire pump, mobile coal handling equipment, and other vehicles will use gasoline or diesel fuel.

### 3.3.2 Fuel Quantities

Based on the design coal in Table 3.3-1, the coal consumption rate will be 145 tons per hour. At the design capacity factor of 87 percent, the annual coal consumption for the cogeneration plant would be 1,105,000 tons per year.

Based on operation with a combination of design-basis coal and wood waste, the wood waste consumption rate for each steam generator will be approximately 8 tons per hour. The annual wood waste consumption, assuming



### 3.4 AIR EMISSIONS AND CONTROL

#### 3.4.1 Air Emission Types and Sources

The cogeneration project is subject to the permitting requirements of the Prevention of Significant Deterioration (PSD) program. PSD permit requirements apply because the net emissions increase of at least one regulated pollutant exceeds the "significant" levels defined by EPA and FDER. The air quality assessment for all applicable pollutants must meet PSD permit requirements including a Best Available Control Technology (BACT) determination.

Net pollutant emissions are determined by comparing emission rates of the proposed facility against those of the existing Seminole Kraft sources to be replaced. The replaced sources will be three power boilers (PB), two bark boilers (BB), three kraft recovery boilers (KRB), and three smelt dissolving tanks (SDT). An emissions inventory of these sources was compiled for the years 1978 through 1987. Although below the maximum capacity of the mill, the period 1983-1984 was found to be the most representative back-to-back years of normal operating conditions. The 1979-1980 operating period was originally selected as the most representative operating period in the AES Power Plant Site Certification Application. However, additional examination of the mill's records determined that sharp increases in fuel costs during 1980-1981 had caused the plant to adjust fuel usage to minimize oil consumption and, as a result, reduced pulp production in 1982. Therefore, a period after 1982 is more representative of current operations.

Limited plant operating hours in 1985 and 1987, and a plant shutdown in 1986 preclude the 1985-1987 data from further consideration. The operating conditions in 1983-1984 best represent normal plant operations as evidenced by pulp production rates and fuel oil usage rates. Thus, the 1983-1984 data will be used as representative of the normal operating condition at the existing pulp mill. These rates are shown in Table 3.4-1.

The 1983-1984 emissions are shown in Table 3.4-1a. The total actual emissions of the existing sources have been adjusted to represent the effect of recent control techniques and an imposed particulate emission limit. Specifically, the SDT emissions are adjusted to reflect a reduction

Other wastewaters will be treated and disposed of as discussed in Section 3.5. No impacts are expected because the loading to the existing Seminole Kraft treatment system will not be increased as a result of the shutdown of the existing power, bark, and recovery boiler waste streams.

## 5.6 AIR QUALITY IMPACTS

The project will replace older, less environmentally efficient equipment with advanced kraft recovery boiler and clean coal technology, resulting in numerous environmental benefits. Major reductions are anticipated in ambient impacts of sulfur dioxide (SO<sub>2</sub>), total suspended particulate matter (TSP), and particulates matter with aerodynamic diameters less than 10 microns (PM<sub>10</sub>). In addition, the maximum total reduced sulfur (TRS) emission rate from the new recovery boiler will be lower than that from the existing kraft recovery boilers. This will result in a significant reduction in ambient air quality impacts and odor effects due to TRS emissions.

The air quality impacts resulting from the operation of the Cedar Bay Cogeneration Facility include the direct effects on pollution levels in the power plant vicinity and the further effects of those pollutants on human health and welfare. Subsections 5.6.1 through 5.6.4 describe the air quality impacts of the facility. This air quality assessment is used to support the PSD permit application.

### 5.6.1 Pollutant Applicability

Pollutant applicability is determined in Subsection 3.4.1 and is briefly summarized here. The pollutant applicability was determined by comparing emission rates of the proposed facility against those Seminole Kraft sources being replaced. An applicable pollutant is a regulated pollutant which has a net emission increase that exceeds "significant" levels defined by EPA and FDER.

Subsection 3.4.1 identified that nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO), lead (Pb), beryllium (Be), mercury (Hg), fluorides, and sulfuric acid mist would be subject to the PSD permitting requirements. The permit requirements include BACT determination and air quality impact

existing sources. Although SO<sub>2</sub> was netted out, modeling was performed to show the benefit to sensitive air quality areas obtained by replacing the existing Seminole Kraft sources with more environmentally efficient sources. Also, because of the absence of specific standards, air quality impact assessments were not required for the applicable noncriteria pollutants.

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Air dispersion modeling is based on the facility configuration as shown on Figure 3.2-1.

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As previously described in Subsection 5.6.2.1, the concept of net emission impact modeling was used for each applicable pollutant. The permitted (maximum allowable) emission rates for those Seminole Kraft sources to be replaced were used to establish short-term air quality based impacts. The actual emissions were used for determining the annual base impacts. Modeling for the proposed sources to determine short-term impacts was based on the maximum expected emission rates. Annual modeling of the proposed sources was based on 1.70 percent sulfur content for the coal used in the CFB. The CFB was conservatively modeled at 100 percent capacity. The area of modeling interest is the significant impact area as defined by the proposed sources alone.

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5.6.3.1 Sulfur Dioxide Concentrations. This assessment evaluates impacts at sensitive air quality areas. These areas include the SO<sub>2</sub> PSD Class I area and the three FDER modeled exceedance locations.

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Mr. Stanley

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STATE OF FLORIDA  
DIVISION OF ADMINISTRATIVE HEARINGS

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

CASE NO. 88-5740

vs.

DEPARTMENT OF ENVIRONMENTAL  
REGULATION,  
Respondent.

CITY OF JACKSONVILLE, DEPARTMENT  
OF COMMUNITY AFFAIRS, PUBLIC SERVICE  
COMMISSION, and ST. JOHNS RIVER WATER  
MANAGEMENT DISTRICT, JACKSONVILLE  
ELECTRIC AUTHORITY, CHARLES L. BOSTWICK,  
BARNETT BANK TRUST COMPANY, IMESON  
INTERNATIONAL PARK, INC., and INDUSTRIAL  
PARK DEVELOPMENT CORPORATION,

-----  
STATE OF FLORIDA )  
COUNTY OF DUVAL )

TESTIMONY and PROCEEDINGS before the Honorable  
ROBERT T. BENTON, Hearing Officer, at 8050 Baymeadows  
Road, Jacksonville, Duval County, Florida, on Monday,  
Tuesday, and Wednesday, the 5th, 6th, and 7th days of  
February, 1990, before Terry T. Hurley, a Notary Public  
in and for the State of Florida at Large.

VOLUME I  
(Pages 1 - 274)  
DAWOOD & HOGAN  
828 Blackstone Building  
Jacksonville, Florida 32202  
(904)353-5300

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the new recycling facility would you be replacing any permitted air sources that you're aware of now?

A No.

Q Would there still be a requirement for power and for steam for the mill?

A Absolutely. The steam requirements would exist for the manufacture of paper in the future as they do currently.

Q How would the proposed project effect the AES project?

A There would -- there would be a reduction in the amount of steam. I don't -- I don't have the exact numbers at this time, and won't have them until engineering is complete, based upon a one machine operation.

Q Would you still need steam from some source?

A Oh, yes.

Q In terms of the election of construction of a power boiler, or of shutting it down and going to the recycled operation, is there a change in whether this project is required?

A We still require the source of steam in order to operate the mill and manufacture paper. Steam is a basic requirement of paper manufacturing.

Q Do you currently generate steam in-house?

Mr. Nelson

1 eat early and be back at 1:20.

2 (At, thereupon, the hearing was recessed at  
3 12:40 p.m. to be reconvened at 1:40 p.m. of the  
4 same day.)

5  
6  
7 A F T E R N O O N S E S S I O N

8 February 7, 1990

1:45 p.m.

9 THE HEARING OFFICER: Call your next witness.

10 MR. COLE: Mr. Nelson.

11  
12 DANIEL WILLIAM NELSON,

13 having been produced and first duly sworn as a witness,  
14 testified as follows:

15  
16 DIRECT EXAMINATION

17 BY MR. COLE:

18 Q Would you state your full name and business  
19 address, please.

20 A My name is Daniel William Nelson, and my  
21 business address is 11401 Lamar, Overland Park, Kansas.

22 Q Okay. Could you briefly summarize your  
23 education and experience.

24 A Okay. I have a Bachelor of Science degree in  
25 meteorology. That was in 1975. Since then I've worked

1           into the air.

2                   So with -- we'll get into it a little bit  
3 further, but by putting our facility in there we  
4 have improved the dispersion capability of the  
5 facility by replacing these older outdated power  
6 boilers.

7           THE HEARING OFFICER: All right. The recovery  
8 boilers are to be shut down in any case.

9           THE WITNESS: The recovery boiler, as I  
10 understand, with Seminole Kraft changing their  
11 operation to a recycling mode, they will no longer  
12 be required. And that's a separate issue from what  
13 we're doing here.

14           THE HEARING OFFICER: All right. And how  
15 about the bark boilers, are they going to be used  
16 to recycle paper into liner board?

17           THE WITNESS: The bark boilers will be  
18 replaced with the Seminole Kraft facility, so they  
19 won't need any of those boilers anymore, the power  
20 boiler and the bark boiler.

21           Any steam requirements that they need will  
22 come from the AES project.

23           THE HEARING OFFICER: I guess my question is  
24 whether when they go to their new process they're  
25 going to have any bark that they could have used in



# Seminole Kraft Corporation

Jacksonville Mill

9469 Eastport Road  
P.O. Box 26998  
Jacksonville, Florida 32218-0998

February 16, 1990

904 751-6400

Mr. C.H. Fancy, P.E.  
Bureau of Air Regulation  
Florida Dept. of Environmental Regulation  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400

Dear Mr. Fancy:

This letter is to request an amendment to construction permit No. AC16-168607 (Kraft Recovery Boiler) for our mill in Jacksonville, As indicated earlier, Seminole Kraft has engaged in extensive engineering studies related to the proposed new recovery boiler installation as well as examining how best to position the mill for the future. These studies have concluded that the mill is a high cost operation in its current configuration and would remain so even after the installation of the new recovery boiler currently estimated to cost \$130,000,000.

Accordingly, three months ago, Seminole Kraft began an investigation to determine what technology alternatives to the recovery boiler project might provide an improved environment to the City of Jacksonville and a mill that would be more competitive in domestic and foreign markets in the future.

An alternative has been tentatively selected that will provide the business with the stability required to insure a long term viable operation. This alternative provides for reconfiguration of the existing mill to enable it to use 100% recycled fiber instead of virgin fiber to produce 1,200 tons per day of linerboard on our existing No.2 paper machine. The kraft pulp mill, old recovery boilers and associated facilities will be permanently shut down and the No.1 paper machine will be placed on cold standby. This alternative will result in the elimination of all regulated TRS (odor) emission sources prior to the stated November 12, 1992 deadline as well as substantial reductions in particulate emissions. This conversion will increase the use of recycled fiber at the mill from about 100 TPD to about 1,400 TPD and will substantially increase Florida's waste paper recycle rate.



Mr. C.H. Fancy, P.E.  
February 16, 1990  
Page 2

As we discussed, the best approach to providing regulatory approval of this alternative appears to be an amendment to the specific conditions in the new recovery boiler construction permit. We believe this new condition should relieve Seminole Kraft of the obligation of building a new recovery boiler if Seminole chooses to shut down the kraft pulping operation, old recovery boilers and related facilities by supplying recycled fiber to the paper machine instead of virgin wood pulp from the kraft pulp mill. In addition, this new condition would require Seminole Kraft to turn in the operating permits for the old recovery boilers once the recycle operation is up and running and to make the old recovery boiler incapable of operation. We believe this specific condition should also provide the mechanism for retaining the recovery boiler creditable emission reductions for potential use by Seminole Kraft pursuant to 17-2.500(2)(e) 3 & 4. As noted, our No.1 paper machine (presently making bag paper) will be placed on cold standby for the time being. However we hope to develop a project to use recycle fiber on the No.1 paper machine in the future and if AES cannot supply the required steam, we would like to use the creditable emissions from the recovery boilers for a power boiler to supply steam to the No.1 paper machine.

Finally, this specific condition should provide for notice to DER of Seminole Kraft's final decision to pursue this alternative or proceed with the new recovery boiler by a date certain.

To facilitate development of the language for this amendment, we have prepared the draft specific condition shown below for your consideration.

15. Seminole Kraft Corporation has indicated to the Department that as an alternative to replacing the three existing kraft recovery boilers with a new recovery boiler, it may choose to convert the mill to a 100% recycle fiber operation and close down the kraft pulp mill, recovery boilers and associated facilities. In the event that Seminole Kraft chooses this alternative, the following conditions apply:

- a. The existing kraft pulp mill, including three recovery boilers, three smelt dissolving tanks, digester system, three lime kilns and three multiple effect evaporators, will be permanently shut down and be made incapable of operation by November 12, 1992. Operating permits for these sources shall be turned into the BESD office by this same date.

Mr. C.H. Fancy, P.E.  
 February 16, 1990  
 Page 3

- b. Notice of Seminole Kraft's decision to proceed with construction of a new recovery boiler or to convert the mill to 100% recycle fiber operation shall be provided to DER and BESD by May 1, 1990.
- c. If Seminole Kraft chooses to convert the mill to 100% recycle fiber operation, it shall submit semi-annual progress reports to DER and BESD by June 30 and December 31 of each year until the recycle fiber project is completed and in operation.
- d. If Seminole Kraft chooses to convert the mill to 100% recycle fiber operation and shuts down the kraft pulp mill sources listed in a. above, the following creditable emission reductions are available to Seminole Kraft for five (5) years from the date construction on this alternative is complete or November 12, 1992, whichever is earlier.

CREDITABLE EMISSION REDUCTIONS (TPY)  
 (1983-84)\*

<u>Source</u>	<u>TSP</u>	<u>PM<sub>10</sub></u>	<u>SO<sub>2</sub></u>	<u>NO<sub>x</sub></u>	<u>CO</u>	<u>TRS</u>
3 existing Recovery Boilers	427.2	320.5	1481	321.1	2327.2	89.3
3 Existing Smelt Dissolving Tanks	122.6	109.7	8.6	-	-	8.9
3 Existing Lime Kilns	74.1	72.6	1.4	98.1	21.2	17.3
No.1 & No.2 Lime Slaker (shut down in 1988)	140.5	133.0	-	-	-	-
No.3 Lime Slaker	14.0	12.8	-	-	-	-

\*Note that emissions for the recovery boilers, smelt dissolving tanks, and lime slakers are the same as in the PSD construction permit application (see Attachment A). The emissions for the lime kilns are based on 1983-84 operating hours, but today's control technology/emission limits. See Attachment B for details.

Mr. C.H. Fancy, P.E.  
February 16, 1990  
page 4

We hope this information will be adequate to proceed with processing the proposed amendment. Please let us know if you require any additional information. We would be happy to meet with the Department to help expedite the handling of this matter.

Sincerely,



L.A. Stanley  
General Manager

ah

CC: Steve Smallwood  
Dale Twachtmann  
James L. Manning ✓  
Richard Maguire  
Mike Riddle  
Curt Barton  
Al Koleff

ATTACHMENT A

(Table 4-3 from Original Recovery Boiler PSD Application)

Table 4-3 Baseline Emissions (1983-1984) from Existing Recovery Boilers and Smelt Dissolving Tanks at Seminole Kraft

Pollutant	Annual Baseline Emissions (TPY)						Totals
	RB1	RB2	RB3	SDT1	SDT2	SDT3	
Particulate Matter (TSP)	143.8	144.4	139.0	31.3	48.4	42.9	549.8
Particulate Matter (PM10)	107.9	108.3	104.3	28.0	43.3	38.4	430.2
Sulfur Dioxide	429.5	519.8	531.7	2.5	3.0	3.1	1,489.6
Nitrogen Oxides	94.4	112.7	114.0	-	-	-	321.1
Carbon Monoxide	674.9	816.8	835.5	-	-	-	2,327.2
Volatile Organic Compounds	100.0	119.4	120.8	-	-	-	340.2
Total Reduced Sulfur	25.2	31.3	32.8	2.6	3.1	3.2	98.2
Lead	.012	0.13	0.12	-	-	-	0.37
Mercury	-	-	-	-	-	-	-
Beryllium	0.0090	0.0098	0.0090	-	-	-	0.0278
Sulfuric Acid Mist	6.18	6.76	6.19	-	-	-	19.1
Inorganic Arsenic	-	-	-	-	-	-	-
Fluorides	-	-	-	-	-	-	-
Asbestos	-	-	-	-	-	-	-
Vinyl Chloride	-	-	-	-	-	-	-

Note: TPY = tons per year

ATTACHMENT B

Basis for Lime Kiln Creditable Emissions

Particulate Emissions - actual data from 1983-84 Annual Report  
 PM<sub>10</sub> - used AP-42 Table 10.1-4 and particulate emissions from  
 1983-84 Annual Report.

NO<sub>x</sub> used NCASI Technical Bulletin No. 107, April 1988

Kiln

No.	mmBTU/Year		Tons No <sub>x</sub> /Year		Average
	83	84	83	84	
1	156150	89535	12.5	7.16	9.8
2	241883	322084	37.5	49.9	43.7
3	267245	308848	41.4	47.9	<u>44.6</u>
				Total	98.1

TRS emissions calculated from actual gas flow rates in 1983-84  
 and at 20 ppm TRS as H<sub>2</sub>S. This would correspond to permit limit  
 today.

CO used AP-42 Table 10.1-1 (0.1 lbs/ADUP)

Year	Pulp Produced (Tons-ADUP/Year)	CO Emissions (TPY)
1983	410,238	20.5
1984	436,032	<u>21.8</u>
		Avg. 21.2

For SO<sub>2</sub>-use data compiled in 1989's operating permit application.

Kiln	SO <sub>2</sub> Emission Rate	Avg. Hours of Operation	SO <sub>2</sub> (TPY)
No.1	0.16 lb/hr	3882	0.31
No.2	0.06 lb/hr	6829	0.21
No.3	0.24 lb/hr w/noncondensibles	7462	<u>0.90</u>
		Total	1.42

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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

DEPARTMENT OF ENVIRONMENTAL  
REGULATION,  
Respondent.

CITY OF JACKSONVILLE, DEPARTMENT  
OF COMMUNITY AFFAIRS, PUBLIC SERVICE  
COMMISSION, and ST. JOHNS RIVER WATER  
MANAGEMENT DISTRICT, JACKSONVILLE  
ELECTRIC AUTHORITY, CHARLES L. BOSTWICK,  
BARNETT BANK TRUST COMPANY, IMESON  
INTERNATIONAL PARK, INC., and INDUSTRIAL  
PARK DEVELOPMENT CORPORATION.

-----  
STATE OF FLORIDA )  
COUNTY OF DUVAL )

TESTIMONY and PROCEEDINGS before the Honorable  
ROBERT T. BENTON, Hearing Officer, at 7071 103rd Street,  
Jacksonville, Duval County, Florida on Tuesday,  
the 20th day of February, 1990, 9:00 a.m., before  
LeeAnne T. Roberto, a Notary Public in and for the State  
of Florida at Large.

VOLUME IV  
(Pages 803-1055)

DAWOOD & HOGAN  
828 BLACKSTONE BUILDING  
JACKSONVILLE, FLORIDA 32202  
(904) 353-5300

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1 And the steam for the drying part of the paper  
2 making process, I think -- but -- what, there are  
3 only two boilers that are used to produce steam to  
4 generate power; is that correct?

5 MR. COLE: Your Honor, there are -- there  
6 are five power boilers and two bark boilers.

7 THE HEARING OFFICER: All right. Five  
8 power boilers and two bark boilers. And the bark  
9 boilers generate steam just for the paper making  
10 process?

11 MR. COLE: Excuse me for one second, your  
12 Honor. I apologize.

13 (Pause)

14 MR. COLE: Okay. Your Honor, there are a  
15 total of five, five power boilers that are involved  
16 in this proceeding in terms of being shut down, if  
17 this project is approved. And there would be --  
18 there is a condition in the D.E.R. Conditions of  
19 Certification that would require those to be shut  
20 down and made inoperable and the operating permits  
21 surrendered. So that the offsets that are  
22 authorized under 17.2 Florida Administrative Code,  
23 the offsets of the emissions from those would  
24 actually be realized.

25 D.E.R. would be concerned -- I'm looking

1 at you, Betsy, because I know that was one of the  
2 major concerns of D.E.R. -- is that if this is  
3 approved, that those old boilers not continue to  
4 operate after these are commenced -- the new ones  
5 are commenced operating.

6 THE HEARING OFFICER: All right. So  
7 there are eight boilers now and you're only  
8 proposing to shut down five?

9 MR. COLE: That's correct. If the other  
10 part that you heard of -- and we'd make clear we're  
11 not relying on this in this proceeding, but we felt  
12 we needed to brief you on what was happening, as  
13 well as other parties that had -- were somewhat  
14 familiar with it.

15 Separate from this proceeding, Seminole  
16 Kraft is -- whether -- it should not be an issue in  
17 this proceeding. We're not relying on any of  
18 those. But separate from this, it is proposing to  
19 shut down the other air sources at the mill and  
20 convert it to a recycling operation. That was the  
21 testimony of  
22 Mr. Stanley. And that would involve shutting down  
23 the other three boilers that produce steam as well  
24 as recover chemicals, which is why they're called  
25 recovery boilers.



1                   But the work has been done as if it was  
2 burning bark.

3                   THE HEARING OFFICER: Of course, if you  
4 switched to this other process, the recycling, then  
5 you wouldn't have bark to fuel the -- two of the  
6 five existing boilers?

7                   MR. COLE: That's correct, but they would  
8 not -- they probably would operate -- they are  
9 capable of burning oil, also. So they can burn oil  
10 in those instead of bark and are permitted to do  
11 so. So that would be, if the -- depending on the  
12 steam requirements, that's something that they  
13 might have to do. But they are permitted either  
14 way, I believe.

15                   THE HEARING OFFICER: All right. Now,  
16 when built, there would be -- is it correct that  
17 there will be two separate operations; that there  
18 will be one operation to generate electricity for  
19 Seminole Kraft and another operation to generate  
20 electricity for resale?

21                   MR. COLE: That is correct, the way it  
22 was proposed prior to the amendment, your Honor.  
23 The -- Seminole Kraft, if it built the new recovery  
24 boiler, would also generate about forty-five  
25 megawatts -- is that -- forty-two megawatts of

1 electricity for use in the mill.

2 If the recycle -- if the recovery boiler  
3 was not built, then Seminole Kraft would buy  
4 electricity from J.E.A. They would not buy  
5 electricity from A.E.S. Cedar Bay. They would  
6 still get steam --

7 THE HEARING OFFICER: So the forty-two  
8 megawatts were anticipated from the replacement  
9 recovery boiler?

10 MR. COLE: That's correct.

11 THE HEARING OFFICER: Which will only be  
12 built if you do not switch to the recycling?

13 MR. COLE: That's correct.

14 I have an answer to your question more  
15 precisely on stack heights, your Honor.

16 The oil fired units have a stack height  
17 of one hundred and six feet. The bark boilers have  
18 a stack height of one hundred and thirty-six feet.  
19 And that's found in Table 5.6-4. And it's also --  
20 the page number would be page 5-42 of Volume II of  
21 the application.

22 THE HEARING OFFICER: Thank you.

23 All right. Now, so again, these -- the  
24 analysis, where some parameter is netted out, all  
25 right, so that before was the five non-recovery

HO Recommended order  
APR. 1990

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.3-3) 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.173, 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, 175) A cyclone at the boiler flue gas exit is designed to knock heavy ash particles down and reinject them into the boiler. (T.173, 175, 176) Flue gas from each boiler will then enter a "baghouse" with fabric filters which remove over 99% 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 405 feet high, to prevent downwash and promote good dispersion of air emissions. Stacks at the existing mill are relatively low (approximately 100

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 SO<sub>2</sub>, NO<sub>x</sub>, 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 SO<sub>2</sub> 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 50



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.826) 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.6-62; 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

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, upon completion of the initial compliance tests on the AESCB 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. BESD shall be specifically informed in writing within thirty days after each individual shut down of the above referenced 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, F.A.C., 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. John's 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. John's 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

*Mayor Manning Hester DeLaney*

*GREG ADLINSKI 741 DEAN*  
December 2, 1991

Honorable Ed Austin  
Mayor  
City of Jacksonville  
14th Floor, City Hall  
220 East Bay Street  
Jacksonville, Florida 32202

**RECEIVED** **D**  
DEC 06 1991

DEC 11 1991  
MAYOR'S OFFICE  
JACKSONVILLE, FLORIDA  
Office of General Counsel  
Environmental Division

Dear Mayor Austin:

We appreciate your consistent willingness to keep an open mind about AES/Cedar Bay, to thoroughly examine the issues and base your decisions on the facts. Several recent issues have been miscast by the media concerning AES/Cedar Bay's unchanged commitments to provide steam to Seminole Kraft and to cause the surrender of operating permits for 5 of Seminole Kraft's boilers. I am concerned that inaccurate information in the media has unfairly cast a shadow over the AES Cedar Bay project and am writing to provide you a complete picture of this issue.

**ISSUE:** AES/Cedar Bay cannot provide the amount of steam originally promised to Seminole Kraft ?

AES Cedar Bay has long maintained that it would provide approximately one-half of Seminole Kraft's steam needs. We have never intentionally misled anyone into thinking that we would supply all of the steam requirements of the mill. In fact the projects' Site Certification Application (SCA) clearly shows that Seminole Kraft intended to produce a portion of its own steam.

The original agreements between Seminole and AES were reached, and the SCA filed, during a time when the mill was, and planned to be, a kraft process pulp mill. As you are aware a kraft process pulp mill requires the operation of recovery boilers to process byproducts while producing steam. By necessity, these operating plans changed as a result of their recycle conversion.

**ISSUE:** AES/Cedar Bay is renegeing on promises to cause surrender of operating permits for 5 of Seminole Kraft's boilers?

AES Cedar Bay received its Site Certification based on the requirement that operating permits currently held by Seminole Kraft for two (2) bark boilers and three (3) power boilers would be surrendered to the State of Florida. As outlined above, the original agreements between Seminole and AES were reached and permits filed on the assumption that the mill would operate as a kraft pulp mill with an associated recovery boiler. Thus when Seminole Kraft made the decision to convert to a recycled fiber mill, the steam production from the recovery boiler had to be replaced as it would no longer operate.



Page 2 of 2

In order to determine how best to supply their share of steam, Seminole Kraft commissioned a study by Sandwell Engineering to evaluate many options for replacing the steam production from the recovery boiler and to burn waste fiber from the recycle process. That study was completed in September of 1991. Sandwell's recommendation was to upgrade and refurbish three of the boilers which will relinquish their permits when AES/Cedar Bay begins commercial operation.

In order for this to happen, Seminole Kraft must file applications, and undergo scrutiny from the regulatory agencies in the same fashion as any brand new source of air emissions. This process, the same as for any new source anywhere, must be followed in order to obtain new operating permits.

I hope that this letter more clearly explains what is happening with regards to the AES/Cedar Bay facility and its commitments to Seminole Kraft. AES/Cedar Bay is well aware of its obligation to supply 250,000 pounds per hour of steam to the mill and to cause the surrender of 5 operating permits for 1950's vintage boilers. And, AES/Cedar Bay intends to fully meet those commitments. We stand ready to meet with you and to answer any questions that you might have regarding the AES/Cedar Bay project.

Sincerely,

  
Jerry Varkonda  
Plant Manager

12. DEC 09 '91 10:10 FLA CITY PM \* ROGERS, TOWERS

P.2

**PRESS RELEASE**

Seminole Kraft learned late this afternoon of the Mayor's press release regarding the possible reopening of boilers at Seminole Kraft and the site certification for AES Cedar Bay.

Seminole Kraft regrets the determination by the General Counsel's office which apparently was communicated to the Mayor today regarding the possible reopening of certain of Seminole Kraft's boilers.

Obviously, Seminole Kraft believes that it has not misled anyone. Environmental permitting agencies have been aware at least since October, 1990 of the likelihood that Seminole Kraft would seek permits for the refurbishing and reopening of two of its bark boilers. Seminole Kraft looks forward to the opportunity to demonstrate to the General Counsel's office that the City has not been misled.

The Mayor's decision to request suspension of the site certification for AES Cedar Bay will not interfere with Seminole Kraft's conversion to recycling and its commitment to the City to eliminate all odors from the mill by 1992.

For questions, call Larry Stanley at 751-6400.

*Attn: Steve Patterson*

OERTEL, HOFFMAN, FERNANDEZ & COLE, P. A.

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ENVIRONMENTAL CONSULTANT  
(NOT A MEMBER OF THE FLORIDA BAR)

October 26, 1990

Mr. Steve Smallwood  
Bureau of Air Quality Management  
Department of Environmental Regulation  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400

Post-It™ brand fax transmittal memo 7671		# of pages ▶
To <i>Charles Schreyer</i>	From <i>Curt Barton</i>	
Co.	Co.	
Dept.	Phone #	
Fax # <i>312 855 7312</i>	Fax #	

RE: Refurbishment or replacement of  
Seminole Kraft Bark Boilers; Changing Fuel Mix

Dear Steve:

The purpose of this letter is to confirm your previous discussion with Julie Blunden, Curt Barton, and me concerning refurbishment or replacement of existing bark boilers, or the use of such boilers to burn recycled fiber rejects as well as bark.

As you know, Seminole Kraft Corporation proposes to convert its Jacksonville mill to a 100% recycle operation. This will benefit the community in many ways, including reducing the need to landfill used corrugated containers and eliminating all TRS emissions.

In processing the recycled fiber a certain amount of rejects will be produced which must be burned or landfilled. Due to the volume of rejects generated over the long term, incineration is preferred. The fiber rejects have a high energy content and they can be efficiently burned with bark (also generated on-site) in boilers adequate for this purpose.

The DER permitting requirements for boilers used for this purpose would depend on whether the AES Cedar Bay/Seminole Kraft Co-generation Project is ultimately certified.

Permitting Requirements if AES Cedar Bay/Seminole Kraft Project is Certified:

If the Co-generation Project is certified, Condition IID of the proposed Conditions of Certification (revised 7-19-90) requires

Mr. Steve Smallwood  
October 26, 1990  
Page 2

that Power Boiler Nos. 1 through 3 and Bark Boiler Nos. 1 and 2 are to be "permanently shut down and made incapable of operation" at the time initial compliance tests on the AESCB boilers are completed. This provision constitutes a federally enforceable permit condition upon final action by the Siting Board and Secretary.

In light of this condition, the same permitting requirements apply irrespective of whether a new boiler is constructed to burn bark and fiber rejects or an existing boiler is refurbished for this purpose. These requirements would consist of the applicable federal and state New Source Performance Standard; assurance that ambient air quality standards will not be violated; and Prevention of Significant Deterioration (PSD) review in the absence of creditable emission reductions such as those resulting from the shut-down of the Kraft Recovery Boilers. See Rule 17-2.500, F.A.C. There is no prohibition against applying for a new source permit because of a federally enforceable condition requiring retirement of an existing source.

Permitting Requirements for Bark Boilers if AES Cedar Bay/Seminole Kraft Project Not Certified:

The permitting requirements are different, however, if the proposed Co-generation Project is not certified. The existing Bark Boiler(s) are capable of being used to burn the fiber rejects as well as bark.

It appears that the change in fuel content -- from 100% bark to a 75% bark/25% fiber reject mix -- does not constitute a modification for purposes of applying new source performance standards or PSD review. This is because of the way "modification" is defined and the specific exemption to that definition.

Modification is defined in 40 CFR §60.2 (also found in Chapter 17-2, F.A.C.) as:

Any physical change in, or change in the method of operation of, an existing facility which increases the amount of any air pollutant (to which a standard applies) emitted into the atmosphere by that facility or which results in the emission of any air pollutant (to which a standard applies) into the atmosphere not previously emitted.



Mr. Steve Smallwood  
October 26, 1990  
Page 3

There is, however, an exception to the definition which applies to use of an alternative fuel or raw material if prior to the applicable date of the regulation the existing facility was capable of accommodating an alternative fuel use. A "facility" is capable of accommodating an alternative fuel use if the use could be accomplished under the facility's construction specifications as amended prior to the change. 40 CFR §60.14(e)(4).

DER rules contain a similar exemption. Rule 17-2.500(2)(c)4, F.A.C., exempts the use of an alternative fuel which the facility was capable of accommodating before January 6, 1975, unless such change is prohibited under any federally enforceable permit condition established after January 6, 1975.

Since prior to January 6, 1975, the bark boilers were capable of burning the reject fibers in the percentages anticipated, and still are, they fall within the exception to the general NSPS requirement.

EPA and DER rules also subject "major modifications" of existing facilities to PSD review. Such modifications are generally defined as any physical change in, or change in the method of operation of, a major stationary source which would result in a significant net emissions increase of any pollutants subject to regulation. The rules also contain, however, an exemption for a physical change or change in method of operation for the use of an alternative fuel or raw material which the source was capable of accommodating before January 6, 1975, unless such change would be prohibited under any federally enforceable permit condition established after January 6, 1975. 40 CFR 52.21(2)(d); see also §17-2.500(2)(c)4., F.A.C.

Consequently, under the situation described, the switch in fuel mixture would not be a major modification requiring PSD review. Seminole Kraft would, however, notify the Department before burning the reject fibers and answer any questions concerning it.

Mr. Steve Smallwood  
October 26, 1990  
Page 4

I would appreciate your confirming my understanding of our discussion. Please do not hesitate to provide corrections or clarification where needed. Thank you for your cooperation.

Sincerely,

  
Terry Cole

TC/kp

cc: Curt Barton  
Julie Blunden

s-smallw.ltr

11-26-91

## SEMINOLE KRAFT CORPORATION, PAST AND PRESENT

The Seminole Kraft paper mill is located on Eastport Road at Heckscher Drive. It is a fully integrated pulp and paper mill with two paper machines.

No.1 paper machine produces kraft paper utilized in the manufacture of grocery sacks at various converting plants across the United States including one nearby in Yulee, FL. The No.2 paper machine produces linerboard utilized in the manufacture of corrugated containers in domestic and foreign converting operations. Approximately 15% of our linerboard production is exported to Europe and the Far East.

The mill was built in the early 1950's by St. Regis Paper Co. No.1 paper machine and supporting equipment started up in 1952.

In 1957 a major expansion project was completed and the No.2 linerboard machine, the "Seminole Chief", commenced operation.

The Seminole Chief was the first linerboard machine in the world to produce over 1,000 tons in a 24-hour period. As you can see, Seminole Kraft Corporation took its name from the No.2 paper machine.

St. Regis shifted emphasis to bleached paper in the mid-1970's and sold the mill in 1983 to Ben Westby, who renamed and operated the mill as Jacksonville Kraft Paper Co. Westby sold to Abraham Zion in March 1985 who operated the mill until that October when it was abruptly shut down.

In early 1986, business leaders and elected officials of Jacksonville requested Roger Stone, CEO of Stone Container Corporation, to consider the possibility of restarting the mill to provide jobs and income for the citizens and business community of Jacksonville.

Shortly thereafter, Stone Container management determined that the mill could be restarted. Stone Container then engaged BE&K Engineering to thoroughly evaluate what would be required to accomplish the startup.

Seminole Kraft was incorporated and purchased the mill on October 31, 1986. Equity was 49% Stone Container and 51% ownership by a group of investors. A \$25 million recommissioning project with a four month time frame was implemented in November 1986.

75% of the total cost of recommissioning was spent in the Power and Recovery Boiler areas, including environmental controls.

No.1 paper machine started up on February 16, 1987. No.2 paper machine, the "Seminole Chief", started up on March 2, 1987. The project culminated with successful completion on time, and within budget, with commercial operations beginning on April 16, 1987.

Environmental agreements were reached with the State of Florida DER and City of Jacksonville Bio-Environmental Services Division. The digester TRS gas collection and incineration system was repaired and placed in operation. Equipment was installed on the multiple effect evaporator system for collecting and incinerating TRS gases from this system. This project, which was part of the \$25.0 million recommissioning effort, was completed in July 1987 and reduced TRS emissions 69% from 2,950 tons/year to 900 tons per year.

A Honeywell digester control system was installed to sequence and control all aspects of digester operation (a \$1.7 million

expenditure) further reducing TRS emissions. This project was completed in May of 1989 and resulted in a reduction of TRS emissions from 900 tons per year to about 550 tons/year or about 39%.

Next we installed new lime mud filters on each of three lime kilns resulting in additional reduction of TRS emissions. This project was completed in August 1989 at a cost of almost \$2.0 million resulting in a reduction of TRS emissions from 550 tons/year to 230 tons/year or an additional 58% reduction.

In the final analysis we have spent well over \$5.0 million on TRS emission reductions alone since the mill was restarted in 1987. The total impact has been reductions in TRS emissions from early 1987 by over 92%. With the exception of a very few upsets in operating conditions, we have operated well within our permitted limits. Unfortunately, these accomplishments are overlooked by the media.

Current EPA and Florida DER regulations require that TRS emissions be further reduced substantially by November 12, 1992.

Initially our plan was to install a large, new low odor emission high technology recovery boiler to replace the three existing small units to meet the new TRS emission standards that become effective in November, 1992. Preliminary engineering was completed and a construction permit issued. However, Seminole Kraft elected to study other alternatives due to the high level of capital investment in the new recovery boiler and the low return on that investment coupled with the need for capital investment in the paper machines. In our opinion, the timing was perfect to reconfigure the mill to a 100% recycle paper operation. While recycling technology has been around for years, especially in Europe and the Far East, the attitude of paper markets in the U.S. had been that virgin fiber products were of a better quality. Therefore, major U.S. mills got into recycling

only to provide supplemental fiber to increase production. In the past two years, we have seen a tremendous change in attitude toward recycled paper products in the United States. Following a feasibility study, we announced our current mill reconfiguration plan in January of 1990.

This project applies the latest technology that will convert the operations from a virgin fiber mill to a 100% recycle system. While we have reduced TRS emissions significantly thus far, this project will eliminate ALL regulated sources of TRS. The use of waste paper also will result in substantial reductions in solid waste to landfills, providing further environmental benefits.

The financing for this \$109 million project has been completed, critical equipment is on order, and construction is well underway. Target completion for the project is mid-1992.

The process has been designed by Simon Holder, a British firm located outside of Manchester, England, with a proven track record in recycle technology. The latest technology has been utilized in the design of this project with equipment manufactured in the United States and Europe.

The contractors performing the construction work are local businesses. Miller Electric, a firm based in Jacksonville, is performing the electrical work. Watkins Engineers and Constructors based in Tallahassee with offices here in Jacksonville are performing the civil and mechanical work of the project. In addition, many local shops and services are being utilized.

The project provides for two recycle process lines designed for a production rate of 700 tons per day each and rebuild of the linerboard machine to produce 1,200 tons per day. Our facility will consume up to 1,400 tons per day of Old Corrugated Containers in the recycling process and will be the largest

facility of its type in the world with the most current process technology available. It will reduce landfill requirements by 4,000 Cu.Yds/Day or the equivalent need of the population of Duval County. It is obvious that with our new capacity and additional recycling efforts, there is no reason any recyclable old corrugated containers (OCC) should reach a landfill in the State of Florida.

Fiber sourcing for our facility will be coordinated by Paper Recycling International. This is a company recently founded through a joint venture between Stone Container and Waste Management of North America. While we will have to reach out to other areas for recycle fiber, our goal is to utilize all available local fiber suitable for recycling first.

This project will be a major step toward accomplishment of the Stone Container and U.S. Paper Industry goal to recycle 40% by 1995. In addition, this project will result in a reduction in water usage from current levels at the mill.

Another development that we are proud of at Seminole Kraft is the "Good News Bag" paper. In early 1990, Stone Container Corporation recognized that through sudden public interest in recycling, more old newspapers were being collected than industry could process with facilities currently in operation. We were challenged to look for ways to utilize ONP in our process. Following several trials, we went commercial with the "Good News Bag" paper grade in May of 1990 that is manufactured with 20% old newspaper recycle fiber and 80% virgin kraft fiber. This was an exciting project for us and an immediate success in the market place.

In the past year, we have reprocessed over 26,000 tons of old newspapers making a product that meets all of the physical test requirements of the virgin sheet. Stone Container is now producing "Good News Bag" paper at our Florence, S.C. and Hodge,

LA mills. In addition, we have openly shared our technology with other paper companies in an effort to help meet the recycling goals of our industry and our nation.

We have successfully completed trials on our No.1 paper machine on 100% recycle fiber for bag production. Our plan now is for operation of this machine after the reconfiguration project utilizing recycled fiber. This project will provide greater potential for the company and allow us to retain more jobs than previously planned.

It is important to review the economic impact on Jacksonville and the First Coast area. The following are direct expenditures, much of which go right back into the local economy:

Payroll	- \$24.7 million - to approx. 500 employees
Raw Materials	- \$48.0 million - wood within 150 miles
Chemicals	- \$28.5 million - A major supplier is Betz PaperChem located in Jacksonville
Fuel	- \$18.4 million - purchased from local suppliers
Electricity	- \$6.6 million - JEA
Supplies	- \$6.3 million - local
Maintenance	- \$14.7 million - local shops/supply houses
Out Bound Freight	- \$14.0 million - CSX, JPA & local trucking
Local Tax Impact	- \$2.4 million

A recent study indicated that Seminole Kraft Corporation has a direct economic impact on the First Coast of \$148.0 million annually providing an indirect earnings impact of over \$29.0 million and an indirect employment impact of 1,460 jobs. This study does not take into consideration the \$109 million conversion project with the positive impact on local jobs and purchases over the next 18 months.

During the past five years the management staff at Seminole Kraft Corporation has worked very diligently to improve its operation



and environmental compliance. Millions of dollars have been spent to install environmental equipment in spite of the fact that part of this investment will be of no value once the mill's Reconfiguration Project has been completed. However, steps taken to correct what we consider to be an inappropriate designation in the 2010 Plan has resulted in a great deal of confusion and erroneous reporting in the media.

In the final hours of preparation for submission of the Comprehensive Plan by the Jacksonville City Council, an amendment was proposed to the Council's Community and Economic Development Committee. This amendment changed the designation of the Seminole Kraft Corporation Plant Site from its legal and proper "Heavy Industrial" status based on its current usage to "Light Industrial". This "Heavy Industrial" zoning has been in place for many years. This amendment was passed and incorporated in the 2010 Plan which was subsequently adopted by the City Council.

Seminole Kraft officials did not learn of the change until after adoption by the full Council. In the opinion of Seminole Kraft Corporation, this "Light Industrial" designation is not compatible to our current and future business. Therefore, in compliance with the appropriate rules, we have submitted application to the City of Jacksonville to redesignate the property as "Heavy Industrial" in the final 2010 Comprehensive Plan.

In the process of informing our neighbors, the Citizens Committee headed by Mrs. Barbara Broward, a separate issue surfaced regarding the future of three of the Seminole Kraft steam boilers. We explained that Seminole had always planned to operate boilers to generate process steam in conjunction with the AES steam supply. We also explained that any existing boilers utilized would have to be retrofitted and repermited to New Source Performance Standards requiring significant investment in additional environmental controls.

Additionally, we stressed that none of the proposed Seminole boilers would emit TRS and all regulated sources of Seminole TRS would be shut down as the Consent Agreement between Seminole Kraft and the City of Jacksonville stipulated.

However, by the time this information reached the various news media it was twisted to indicate that Seminole Kraft did not intend to honor the Consent Order dated November 14, 1990 dealing with the elimination of TRS emissions. This resulted in a front page headline in the Florida Times Union on Saturday which stated "Mill Drops Vow to Close Boilers". This is absolutely false. The Consent Agreement entered into with the City of Jacksonville was negotiated in good faith and complied with to date. Seminole Kraft Corporation has not and will not violate the terms of this agreement which was filed in the Circuit Court of the Fourth Judicial Circuit in and for Duval County, Florida.

The issue of repermitting any existing Seminole Kraft boilers is a separate matter that will require approval of all appropriate local, state and federal regulatory agencies based upon established rules and regulations. We anticipate that studies will be concluded within the next few weeks accounting for submission of applications in early 1991.

RECEIVED

JAN 8 1991

Office of General Counsel  
Environmental Division

IN THE CIRCUIT COURT, FOURTH  
JUDICIAL CIRCUIT, IN AND FOR  
DUVAL COUNTY, FLORIDA

CASE NO: 88-12385-CA

DIVISION: DIVISION CV-G

CITY OF JACKSONVILLE, a municipal  
corporation,

Plaintiff,

-vs-

SEMINOLE KRAFT CORPORATION, a  
Florida corporation,

Defendant.

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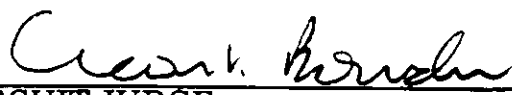
CONSENT JUDGMENT

The above-styled cause having been settled by stipulation of the parties, as reflected in the attached Stipulation for Entry of a Consent Judgment, this Court having duly reviewed and considered the Stipulation and Motion, and having found that the settlement is in the best interest of all parties, and in the public interest, it is, therefore,

ORDERED AND ADJUDGED that:

1. The settlement of the above-styled cause among the parties shall be, and is hereby, approved.
2. The Stipulation for Entry of a Consent Judgment, executed by the parties, shall become, and is hereby made, a part of this Order by reference.
3. This Court retains jurisdiction over this cause and over the parties pending compliance with the terms of the Stipulation, and during its duration for enforcement of the same.

DONE AND ORDERED at Jacksonville, Duval County, Florida, this 19<sup>th</sup>  
~~November~~ <sup>December</sup> day of ~~November~~, 1990.

  
CIRCUIT JUDGE

cc:

Terry Cole, Esq.  
R. L. Caleen, Esq.  
Oertel, Hoffman, Fernandez & Cole  
2700 Blair Stone Road, Suite C  
P. O. Box 6507  
Tallahassee, FL 32314  
Attorneys for Defendant

Richard L. Maguire, Esq.  
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Jacksonville, FL 32202  
Attorney for Plaintiff

IN THE CIRCUIT COURT OF THE  
FOURTH JUDICIAL CIRCUIT, IN  
AND FOR DUVAL COUNTY, FLORIDA

CITY OF JACKSONVILLE, a  
Municipal Corporation,

Plaintiff,

vs.

Case No.: 88-12385-CA-CV-G  
Civil Division

SEMINOLE KRAFT CORPORATION,  
A Delaware Corporation,

Defendant.

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STIPULATION FOR ENTRY OF A CONSENT JUDGMENT

The Plaintiff, CITY OF JACKSONVILLE, a Municipal Corporation ("City") and the Defendant, SEMINOLE KRAFT CORPORATION ("Seminole Kraft"), a Delaware Corporation, stipulate to entry of a Consent Judgment based on the following:

1. The City operates an approved local pollution control program pursuant to Section 403.182, Florida Statutes, and is empowered to enforce the provisions of Chapter 376, Jacksonville Municipal Ordinance Code and Environmental Protection Board Rule 2.

2. Seminole Kraft is a Delaware Corporation, authorized to do business in Florida, which operates a pulp and paper mill located at 9469 Eastport Road in Jacksonville, Duval County, Florida. The mill is currently operating under valid Department of Environmental Regulation ("DER") air pollution operating permits.

performed on each RB within thirty (30) days of the effective date of this Stipulation. Compliance shall be demonstrated if the test results are equal to or less than 17.5 ppm by volume on a dry basis at standard conditions corrected to 8% oxygen. Failure to demonstrate compliance with the above specified limit shall result in the following:

1. Seminole Kraft shall pay a stipulated penalty of \$750.00 to the Environmental Protection Fund of the City of Jacksonville within 30 days of the test failure date.

2. Seminole Kraft shall perform additional testing as necessary within 45 days of the previous test to demonstrate compliance with the above specified limits. Seminole Kraft shall pay a stipulated penalty of \$750.00 to the Environmental Protection Fund for each subsequent failure of the above specified testing until such time as compliance is demonstrated.

(2) Continuous Emission Monitors (CEMs) shall be used to demonstrate continuous compliance with an emission limit of 20 ppm by volume on a dry basis at standard conditions corrected to 8% oxygen on a 12-hour basis (12 noon to 12 midnight and 12 midnight to noon) for each RB. If exceedence of the above limit is demonstrated by the CEMs on more than 5% of the operating periods of each RB during a calendar month, Seminole Kraft shall pay a stipulated penalty of \$750.00 for each 12-hour exceedence period in excess of 5%. This penalty shall be paid to the Environmental Protection Fund within 30 days of the end of the month during which the exceedence occurred. Seminole Kraft shall submit monthly reports by the 15th of the following month specifying the information listed below:

(a) 12-hour average TRS readings for each RB for each operating period;

(b) cause and corrective action taken for each exceedence of the 20 ppm limit.

- b. Cease emissions of TRS by September 12, 1992, and cease use as recovery boiler as provided in paragraphs 11 and 12. Surrender permits for use as recovery boiler. Any further use of the equipment shall require compliance with applicable rules, including obtaining new permits.
- c. CEMS data shall be available for 75% of the operating hours per RB on a monthly basis. Failure to maintain data for the required minimum time shall require that the EPA reference method 16 or 16A stack test be performed to demonstrate compliance within 30 days of the end of the month during which the data availability was below 75%.

2. Smelt Dissolving Tanks

a. Existing Smelt Dissolving Tanks

TRS - Interim and Final Limits - Meet existing source limit until shut down.

- b. Remove from Service and render inoperable by September 12, 1992 and surrender permit to the Department of Environmental Regulation by September 12, 1992.

3. All Lime Kilns

a.(1) Seminole Kraft shall comply with Chapter 17-2 Florida Administrative Code as applicable to lime kilns.

(2) In addition to Florida Administrative Code requirements, continuous emission monitors (CEMs) shall be used to demonstrate compliance with an emission limit of 20 ppm by volume on a dry basis at standard conditions corrected to 10% oxygen on a 12-hour basis (12 noon to 12 midnight and 12 midnight to noon) for each lime kiln. Exceedence of the above limit as demonstrated by the CEMs on

1 Introduced by Council Members Forshee and Carlucci:  
2  
3

4 RESOLUTION 89-401-199

5 A RESOLUTION EXPRESSING THE COUNCIL'S OPPOSITION  
6 TO THE PLACEMENT OF A COGENERATION PLANT ON THE  
7 NORTHSIDE OF JACKSONVILLE KNOWN AS THE CEDAR BAY  
8 COGENERATION PROJECT; URGING AND REQUESTING THE  
9 STATE DEPARTMENT OF ENVIRONMENTAL REGULATION  
10 TO DENY ANY PERMIT APPLICATION BEFORE THEM WHICH  
11 WOULD ALLOW SUCH A COGENERATION PLANT TO BE  
12 CONSTRUCTED ON JACKSONVILLE'S NORTHSIDE;  
13 PROVIDING AN EFFECTIVE DATE.  
14

15 BE IT RESOLVED by the Council of the City of Jacksonville:

16 **Section 1.** The Council hereby expresses its opposition to the construction and/or  
17 operation of a cogeneration project on Jacksonville's northside. In specific, the Council  
18 is opposed to the Cedar Bay Cogeneration Project identified as DOAH Case No. 88-5740  
19 currently being considered by the State of Florida Department of Environmental  
20 Regulation.


21 **Section 2.** The Council hereby urges and requests the Florida Department of  
22 Environmental Regulation, the United States Environmental Protection Agency, the St.  
23 Johns River Water Management District and any other permitting agency to deny a  
24 permit for DOAH Case No. 88-5740 or any other application before them by AES Cedar  
25 Bay, Inc. that would permit a cogeneration plant to be placed in Jacksonville's northside  
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1 Section 3. The Council further urges that should the Governor and Cabinet be  
2 requested to vote on any aspect of the project described in Section 2 of this Resolution  
3 that the Governor and Cabinet vote against locating said Cedar Bay Cogeneration  
4 Project in Jacksonville's northside.

5 Section 4. This resolution shall become effective upon signature by the Mayor or  
6 upon becoming effective without the Mayor's signature.

7  
8 Form approved:

9  
10   
11 \_\_\_\_\_  
12 Assistant Counsel

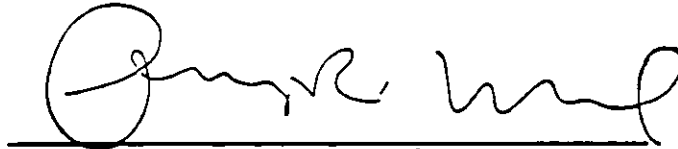
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RESOLUTION 89-401-199

CERTIFICATE OF AUTHENTICATION

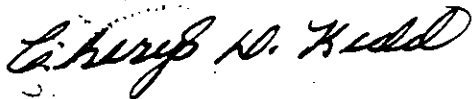
ADOPTED BY THE COUNCIL

June 27, 1989



TERRY R. WOOD  
COUNCIL PRESIDENT

ATTEST:

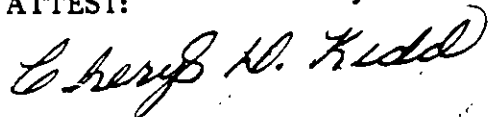


CHERYL D. KIDD  
SECRETARY TO THE COUNCIL

I HEREBY CERTIFY that the foregoing Resolution 89-401-199 was delivered to the Mayor for approval or rejection on June 29, 1989.

BECAME EFFECTIVE without the Mayor's Approval on July 12, 1989.

ATTEST:



CHERYL D. KIDD  
SECRETARY TO THE COUNCIL

1 Introduced by Council Members Darling, Forshee, Smith, Thibault, Carlucci, Daniel,  
2 Davis, Fowler, Jarboe, Jones, Kravitz, Lee, Micks, Myrick, Reagan, Suggs and  
3 Tullis and by the Council as a Whole:

4 RESOLUTION 90-767- 251

5 A RESOLUTION EXPRESSING THE COUNCIL'S OPPOSITION  
6 TO THE PLACEMENT OF A COGENERATION PLANT ON THE  
7 NORTHSIDE OF JACKSONVILLE KNOWN AS THE CEDAR BAY  
8 COGENERATION PROJECT; URGING AND REQUESTING THE  
9 GOVERNOR AND CABINET TO VOTE AGAINST ANY PERMIT  
10 APPLICATION BEFORE THEM WHICH WOULD ALLOW SUCH  
11 A COGENERATION PLANT TO BE CONSTRUCTED ON  
12 JACKSONVILLE'S NORTHSIDE; PROVIDING AN EFFECTIVE  
13 DATE.

14  
15 WHEREAS, the Cedar Bay Cogenerating project will increase the amount of both  
16 carbon monoxide, from 606 to 2,470 tons annually, and nitrogen oxides, from 1,201 to  
17 3,774 tons annually, in our air; and

18 WHEREAS, this plant will also significantly increase the levels of lead, beryllium,  
19 mercury, flourides and sulfuric acid mist in our air; and

20 WHEREAS, the Florida aquifer is a huge and plentiful reservoir, but not so  
21 inexhaustible that the withdrawal of up to 7 million gallons per day for cooling the plant  
22 would not pose a potential threat to our drinking water reserves; and

23 WHEREAS, the United States Environmental Protection Agency has acknowledged  
24 this project could speed salt water intrusion into the aquifer and other wells within its  
25 vicinity; and

26 WHEREAS, it has been determined by the Council that the environmental  
27 detriments of this project far outweigh any economic benefit this plant might bring to  
28 Jacksonville; now, therefore

29 BE IT RESOLVED by the Council of the City of Jacksonville:

1           **Section 1.** As previously stated in Resolution 89-401-199, the Council opposes the  
2 construction and operation of the Cedar Bay Cogeneration Project. The Council urges  
3 and requests the Governor and Cabinet to vote against the application before them by  
4 AES Cedar Bay, Inc. that would permit a cogeneration plant to be placed in  
5 *Duval County*  
~~Jacksonville's northside.~~

6           **Section 2.** This resolution shall become effective upon signature by the Mayor or  
7 upon becoming effective without the Mayor's signature.

8  
9 Form approved:

10  
11 *Phillip J. Cope*  
Assistant Counsel

12 lmt 7/19/90  
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1 Introduced by Council Members Carlucci, Reagan, Forshee, Tullis, Darling, Jones, Kravitz and  
2 Suggs:

3  
4 RESOLUTION 91-531-229

5 A RESOLUTION EXPRESSING THE COUNCIL'S  
6 OPPOSITION TO THE OPERATION OF A COGENERATION  
7 PLANT ON THE NORTHSIDE OF JACKSONVILLE KNOWN  
8 AS THE CEDAR BAY COGENERATION PROJECT;  
9 URGING AND REQUESTING THE UNITED STATES  
10 ENVIRONMENTAL PROTECTION AGENCY TO HOLD A  
11 PUBLIC HEARING IN JACKSONVILLE CONCERNING  
12 MODIFICATIONS TO THE ENVIRONMENTAL IMPACT  
13 STATEMENT FOR THIS PROPOSED PROJECT; PROVIDING  
14 AN EFFECTIVE DATE.

15  
16 WHEREAS, on two previous occasions, the Council has expressed its opposition to the  
17 placement and construction of the AES Cedar Bay Cogeneration project; and

18 WHEREAS, the plant will generate and emit unacceptable amounts of carbon monoxide,  
19 nitrogen oxides, sulfur dioxides, lead, beryllium, mercury, fluorides, sulfuric acid mist, and other  
20 chemicals into our air; and

21 WHEREAS, the discharge of cooling water used in the operation of the plant into the St.  
22 Johns River will have an unacceptable impact on the river; and

23 WHEREAS, because the granting of a National Pollutant Discharge Elimination System  
24 (NPDES) permit to discharge that cooling water would be a major federal action, requiring an  
25 Environmental Impact Statement pursuant to the National Environmental Policy Act; and

26 WHEREAS, the present Environmental Impact Statement was prepared assuming that  
27 groundwater would be the source of cooling water; and  
28  
29

1           WHEREAS, the plant is not permitted to use groundwater for cooling;

2           WHEREAS, the granting of an NPDES permit is crucial to the operation of the plant,  
3 because the plant cannot operate without discharging cooling water; now, therefore

4           BE IT RESOLVED by the Council of the City of Jacksonville:

5           **Section 1.**     The Council opposes the construction and operation of the Cedar Bay  
6 Cogeneration project. Because the Environmental Impact Statement must be modified, the  
7 Council urges and requests the United States Environmental Protection Agency to hold a public  
8 hearing in Jacksonville concerning such modification at such time as such modification is  
9 considered by the United States Environmental Protection Agency.

10          **Section 2.**     This resolution shall become effective upon signature by the Mayor or upon  
11 becoming effective without the Mayor's signature.

12  
13 Form Approved:

14   
15 Phillip S. Coe  
16 Assistant Counsel

17 Rev./jp  
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RESOLUTION 91-531-229

CERTIFICATE OF AUTHENTICATION

ADOPTED BY THE COUNCIL

June 25, 19 91


  
ERIC SMITH  
COUNCIL PRESIDENT

ATTEST:

CHERYL D. KIDD  
SECRETARY TO THE COUNCIL

I HEREBY CERTIFY that the foregoing Resolution 91-531-229 was delivered to the Mayor for approval or rejection on June 27, 1991. BECAME EFFECTIVE without the Mayor's Approval on July 10, 1991.

Attest:

  
KATHLEEN A. ROBERTS  
ASSISTANT COUNCIL SECRETARY-  
LEGISLATIVE RECORDS

AMENDED 12/10/91

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Introduced by Council Members Reagan, Leggett, Crescimbeni, Brown, Carlucci, Kravitz, Draper, Davis and Tullis:

RESOLUTION 91-1408- 625

A RESOLUTION SUPPORTING THE MAYOR'S REQUEST THAT THE FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION SUSPEND THE SITE CERTIFICATION OF THE AES/CEDAR BAY, INC. AND SEMINOLE KRAFT COGENERATION PROJECT AND REOPEN THE CERTIFICATION PROCESS; PROVIDING AN EFFECTIVE DATE.

WHEREAS in 1988 AES/Cedar Bay, Inc. and Seminole Kraft Corporation jointly applied to the State of Florida for permission to build and operate a coal-fired electric cogeneration plant in Jacksonville; and

WHEREAS one of the primary benefits of the proposal was the permanent shut down of Seminole Kraft's bark and oil-fired boilers which are over thirty years old with a sorry record of air pollution violations; and

WHEREAS the Jacksonville City Council has repeatedly opposed the project because of numerous unresolved environmental concerns; and

WHEREAS the State Siting Board approved the cogeneration project, despite the opposition of the Jacksonville City Council, upon the condition that the bark and oil-fired boilers be permanently shut down and made inoperable; and

WHEREAS Seminole Kraft Corporation recently disclosed long-standing plans to repower the boilers contrary to the letter and spirit of the Conditions of Site Certification; and

WHEREAS the Mayor of the City of Jacksonville has asked the Florida Department of Environmental Regulation to investigate Seminole Kraft's plans,



1 reopen the site certification process and suspend certification of the cogeneration  
2 project; now therefore;

3 **BE IT RESOLVED** by the Council of the City of Jacksonville:


4 **Section 1.** The City Council remains opposed to the AES/Cedar Bay, Inc. and  
5 Seminole Kraft Corporation Cogeneration Project.

6 **Section 2.** The City Council heartily applauds the Mayor's decision requesting  
7 the Department of Environmental Regulation to reopen the site certification to fully  
8 explore the applicants' intentions to protect the environment and permanently shut  
9 Seminole Kraft's aged boilers.

10 **Section 3.** The City Council joins the Mayor in strongly urging the Department  
11 of Environmental Regulation to thoroughly investigate Seminole Kraft Corporation's  
12 commitments and reopen the site certification process, with a view toward  
13 suspending certification of the cogeneration project.

14 **Section 4.** This resolution shall become effective upon signature by the Mayor  
15 or upon becoming effective without the Mayor's signature.

16 Form Approved:


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18 Assistant Counsel  
19 (ljs/12/10/91)  
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29

RESOLUTION 91-1408-625


CERTIFICATE OF AUTHENTICATION


DECLARED AN EMERGENCY MEASURE AND  
ADOPTED BY THE COUNCIL

December 10, 1991

  
WARREN A. JONES  
COUNCIL PRESIDENT

ATTEST:

  
BEVERLY S. SIMMONS  
SECRETARY TO THE COUNCIL

APPROVED 12-17-91, 1991  
  
ED AUSTIN, MAYOR

