RONALD J. SCHULTZ
PROPERTY APPRAISER

110 N. Apopka Ave., Room 200, Inverness, Florida 32650-4294 • Telephone (904) 637-9820 Fax: (904) 637-9844

June 18, 1992

Hamilton S. Oven, Jr., P.E.
Florida Department of Environmental Regulation
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Dear Mr. Oven:

Pursuant to Florida Statute 193.621(6), I respectfully request a recommendation from you regarding certain assets reported by Florida Power Corporation.

Attached are copies of all materials provided to us to date:

1) a DR 492 and attachments
2) a letter dated May 8, 1992 requesting additional information
3) a letter dated May 20, 1992 and attachments
4) two letters dated June 18, 1992

The resources of this office are at your disposal. I thank you for your efforts.

Sincerely,

Ronald J. Schultz, CFA
Citrus County Property Appraiser

RJS/ts

COPY

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PROPERTY APPRAISER

110 N. Apopka Ave., Room 200, Inverness, Florida 32650-4294 • Telephone (904) 637-9820 Fax: (904) 637-9844

June 18, 1992

Florida Power Corporation
Attention: William H. Keith, Manager, Tax Accounting
PO Box 14042
Saint Petersburg, FL 33733

Dear Mr. Keith:

We are in receipt of your letter of May 20, 1992. Under separate cover, you should receive a letter addressed to Crystal River 3 Participants containing information relative to the real and personal property owned by that entity.

I am forwarding copies of all the materials provided by you to date to the Florida Department of Environmental Regulation for a determination by the Florida Pollution Control Board as provided by F.S. 193.621. Attached is a copy of Chapter 17-8 of the Florida Administrative Code. I specifically draw to your attention Chapter 17-8.040, Procedures. The materials I have received do not appear to have been prepared or certified by a "professional engineer registered in the State of Florida," or to provide the detail contemplated by the rules. It also appears to me that you have commingled the devices of Florida Power with those of the Crystal River 3 Participants which may make it very difficult for the Board to fulfill its responsibilities.

Attached is a copy of DR405, Tangible Personal Property Tax Return. I call your attention to the following, which I quote in its entirety:

> LOCATION OF PERSONAL PROPERTY: With the exception noted in the following paragraph, a SEPARATE personal property return must be filed for each location in the county. Additional forms will be mailed on request; contact your county property appraiser's office.

Owners of vending machines, LP/Propane tanks and similar property at many locations may submit a single schedule in lieu of individual property statements.

You have not done so. I believe that transmission and distribution facilities (excepting sub-stations) meet the criteria of the

exception and may be filed on a single return.

I also call your attention to the following which is found in bold type under the heading "Specific Instructions": **All expensed items must be entered at original cost.** In your return, I found no evidence that you had included any expensed items.

Attached, you will also find three pages that are copies of materials in your submission. There is one page titled "Florida Power Corporation Tangible Personal Property Tax Return for the Year 1992 Citrus County." The other two pages are titled "Florida Power Corporation Detail Report for Citrus County." The first page was part of your original submission; the other two pages were submitted on May 20th in response to my request of May 8th for additional detail. Examination of the documents reveals that although the supplementary materials contain many more entries, they are replete with real property assets, with no ready means of differentiation; and that the percent good, net book cost and returned value contained in the original report have been omitted. Please resubmit this material including only personal property, with the value information included and segregated for each location in the county (subject to the exception noted above for transmission and distribution assets.) Please include with your submission a statement that the net book and/or percent good numbers have been computed pursuant to a specific Public Service Commission action.

I thank you for your time and attention and I remain available to assist you in fulfilling your statutory responsibilities.

Sincerely,

Ronald J. Schultz, CFA
Citrus County Property Appraiser

RJS/ts

DR-492
R. 8/83

RETURN OF POLLUTION CONTROL DEVICES FOR AD VALOREM TAX PURPOSES

FLORIDA STATUTES CHAPTER 193.621

To the Property Appraiser Honorable Ronald J. Schultz

Citrus County, Florida, March 6, 1992

Return is hereby made for the assessment of the following described property under Florida Statutes as pollution control devices.

Description of Property

Crystal River Power Station located in Sections 28, 29, 30, 31, 32, 33, 34 and 35, Township 17 South, Range 16 East.

Description of Facility

Devices and equipment installed on our Crystal River Plant Units 1, 2, 3, 4, and 5 to minimize or prevent pollution.
Total original cost - $327,808,706 (see attached list)

Name and address of owner:

Florida Power Corporation
Property Tax Department
P.O. Box 14042
St. Petersburg, FL 33733

The undersigned taxpayer hereby agrees to furnish such other reasonable information as the Appraiser may request in regard to the assessment requested herein.

W. H. Kell
Taxpayer's Signature

This form must be filed with the County Property Appraiser before April 1st.

ORIGINAL TO BE RETAINED BY PROPERTY APPRAISER
COPY TO BE GIVEN TO TAXPAYER

FLORIDA POWER CORPORATION
SUMMARY: POLLUTION CONTROL EQUIPMENT
CITRUS COUNTY
JANUARY 1, 1992
1992 RETURN

	Florida Power Corporation	Participants
Crystal River Units 1 & 2		
Total C. R. 1 & 2	$ 47,111,208	$ 0
Crystal River Units 4 & 5		
Total C. R. 4 & 5	171,409,219	$ 0
Crystal River Unit 3		
Personal Property	44,128,174	4,903,130
Real Property	65,160,105	7,240,012
Total C. R. 3	$ 109,288,279	$ 12,143,142
Total Citrus County	$ 327,808,706	$ 12,143,142

FLORIDA POWER CORPORATION
CITRUS COUNTY
POLLUTION CONTROL EQUIPMENT
AS OF JANUARY 1, 1992
1992 RETURN
CRYSTAL RIVER PLANT UNITS #1 & #2

1. Systems to Reduce Stack Emissions		
1.1 Electrostatic Precipitator - Unit #1	$10,438,314	
1.2 Electrostatic Precipitator - Unit #2	22,788,627	
1.3 Fly Ash Systems	8,176,826	
1.4 Fluidizer Systems	2,659,352	
1.5 Additional 197' of Stack Height - Unit #1	192,432	
1.6 Additional 197' of Stack Height - Unit #2	275,623	
1.7 Air Emission Monitoring Equipment	220,000	
1.8 Roads and Paved Area - Bridge Across Channel	221,194	
TOTAL		$44,972,368
2. Waste Water Treatment System to Meet Effluent Discharge Standards		
2.1 Pumps, Piping and Valves for Ash Sluice Discharge System	$ 30,106	
2.2 Test Wells, Holding Ponds and Pumps	222,824	
2.3 Sample Recovery System, Water Recycle Transfer	217,369	
TOTAL		470,299
3. Systems to Contain Oil Spills		
3.1 Light Oil Storage Dike and Retaining Wall	$ 17,969	
3.2 Boom Floating Oil (2)	23,348	
3.3 Modification to Fuel Dock	18,099	
TOTAL		59,416
4. Systems to Prevent Silt Pollution		
4.1 Coal Yard Effluent Drainage System	$ 269,673	
4.2 Aesthetic and Silt Prevention Landscaping	41,463	
TOTAL		311,136
SUBTOTAL		$45,813,219

FLORIDA POWER CORPORATION
CITRUS COUNTY
POLLUTION CONTROL EQUIPMENT
JANUARY 1, 1992
1992 RETURN
CRYSTAL RIVER PLANT UNITS #1 & #2

5. Additional Plant Capacity Required to Operate Pollution Control Equipment	$ 1,297,989
TOTAL POLLUTION CONTROL EQUIPMENT	$47,111,208

Property Tax Department
March 1, 1992

FLORIDA POWER CORPORATION
CITRUS COUNTY
POLLUTION CONTROL EQUIPMENT
JANUARY 1, 1992
1992 RETURN
CRYSTAL RIVER PLANT UNITS #1 & #2

Additional Plant Capacity Required to Operate Pollution Control Equipment at Crystal River #1 & #2:

	Unit #1	Unit #2
Precipitator Power	1.740 MW	3.510 MW
Fan Power for Precipitator	685 HP	874 HP
Dry Fly Ash System	325 HP	180 HP
Total	2.494 MW	4.296 MW

Therefore, the percentage of the total plants required to operate the pollution control devices is:

$$\frac{6.790 \text{ MW}}{890 \text{ MW}} = .763\%$$

Total Cost of Crystal River Units 1 & 2(excluding land)	$215,929,681
Less Pollution Control Equipment(excluding capacity factor)	45,813,219
Balance	$170,116,462
Factor	.763%
Cost of Additional Plant Capacity Required to Operate Pollution Control Equipment	$ 1,297,989

Property Tax Department
March 1, 1992

FLORIDA POWER CORPORATION
CITRUS COUNTY
POLLUTION CONTROL EQUIPMENT
AS OF JANUARY 1, 1992
1992 RETURN
CRYSTAL RIVER PLANT UNITS #4 & #5

Item	Cost
Precipitator	$ 56,018,048
Oil Spill Protection System	11,100
Waste Water Disposal System	2,222,300
Dust Collecting Equipment	3,230,300
Cooling Towers	62,291,225
Fly Ash Removal System	11,290,750
Bottom Ash System	15,160,080
Additional 300' of Stack Height	5,323,400
Environmental & Licensing	1,323,100
Environmental Laboratory Equipment	56,295
Additional Electrical & Piping Direct Expenses	3,805,835
Acoustic Barrier for Noise Control	57,539
SUBTOTAL	$160,789,972
Additional Plant Capacity to Operate Environmental Facilities	10,619,247
TOTAL POLLUTION CONTROL EQUIPMENT CR 4 & 5	$171,409,219

Property Tax Department
March 1, 1992

FLORIDA POWER CORPORATION
CITRUS COUNTY
ADDITIONAL PLANT CAPACITY NECESSARY DUE TO
ADDITION OF POLLUTION CONTROL FACILITIES
CRYSTAL RIVER PLANT UNITS #4 & #5

Pollution Control Equipment Load at Crystal River Unit #4:

Precipitator	6,000 KVA
Ash System (Fly & Bottom)	2,000 KVA
Circulating Pumps (Diff.)	2,500 KVA
Emissions Monitoring	1 KVA
Coal Dust Collection	850 KVA
TOTAL	11,351 KVA

Conversion Power Factor to KW:

11,351 KVA x 0.9 KW/KVA = 10,216 KW

Allocation Factor: $\frac{10,216 \text{ KW}}{690,281 \text{ KW}} = 1.5\%$

Total Cost of Crystal River Units #4 & #5	$868,739,745
Less Pollution Control Facilities (Excluding Capacity Factor)	160,789,972
Balance	$707,949,773
Allocation Factor	1.5%
Additional Plant Capacity	$ 10,619,247

Property Tax Department
March 1, 1991

FLORIDA POWER CORPORATION
CITRUS COUNTY
POLLUTION CONTROL EQUIPMENT
1992 RETURN
CRYSTAL RIVER NUCLEAR PLANT

The following narrative presents the facilities at the Crystal River Unit #3 required for control of pollutants, both radiological and non-radiological in nature, and describes the pollution control function of the various systems:

1. Containment Facility and Engineered Safeguards Systems

The primary function of the Containment Facility and Engineered Safeguards Systems is to reduce the amount of radioactive pollutant material which would be released to the environment should an accident occur. These systems are included within the Classification of "Engineered Safety Features" set forth in Chapter 6.0 of the NRC Safety Analysis Report Format Guide ("Chapter 6").[1] Engineered Safety Features are not intended to prevent accidents nor does their intended function serve to increase the useful life or productivity of a nuclear power plant. There are a number of postulated accidents for each type of reactor. The principal accident postulated is the loss of coolant accident ("LOCA"). The definition of a LOCA given in Appendix A to Part 50 of Title 10 is as follows:

> "Loss of coolant accidents mean(s) those postulated accidents that result from the loss of reactor coolant at a rate in excess of the capability of the reactor coolant make-up system from a break in the reactor coolant pressure boundary, up to and including a break equivalent in size to the double-ended rupture of the largest pipe of the reactor coolant system."

1. See Chapter 6.0 - Engineered Safety Features, Standard Format and Content of Safety Analysis Reports for Nuclear Power Plants, Revision 1, October 1972.

1. Containment Facility and Engineering Safeguards Systems (Cont'd.)

The Engineered Safety Features do not in any way prevent a LOCA or other accident from occurring. They function to control and abate the amount of radioactivity or other pollutants which reach the environment in the event that a LOCA or other postulated accident occurs.

A LOCA is prevented by conservative design of the reactor coolant pressure boundary and by the exacting quality assurance programs and quality control procedures to be followed in its fabrication. The reactor coolant pressure boundary must meet Group A quality standards (See NRC Regulatory Guide 1.26)[2] which are the highest required for nuclear power plant equipment. Engineered Safety Features are required to Meet Group B quality standards. Should a LOCA occur, the nuclear reactor is shutdown by the reactivity control systems whose action is initiated by the reactor protection system This reduces the heat being generated by the fission process, as distinguished from radioactive decay heat, to a small value. Two independent reactivity control systems are required by Appendix A to Part 50 of Title 10. The Engineered Safety Features abate and control the release to the environment of radioactive material.

That the conclusions presented in the preceding discussion are in accord with accepted nuclear power plant design practice and regulatory authority

2. NRC Regulatory Guide 1.26. Quality Group Classification and Standards, USNRC March, 1972.

can be readily determined from the following quotation from the Annex to Appendix D "Discussion of Accidents in Applicants' Environmental Reports: Assumptions", Part 50 of Table 10:

> "This Annex requires certain assumptions to be made in discussion of accidents in Environmental Reports submitted pursuant to Appendix D by applicants for construction permits or operating licenses for nuclear power reactors.
>
> Postulated accidents are discussed in another context in Applicant's Safety Analysis Report. The principal line of defense is accident prevention through correct design, manufacture, and operations; and a Quality Assurance Program is used to provide and maintain the necessary high integrity of the reactor system. Deviations that may occur are handled by protective systems to place and hold the plant in a safe condition. Notwithstanding all this, the conservative postulate is made that serious accidents might occur inspite of the fact that they are extremely unlikely and Engineered Safety Features are installed to mitigate the consequences of these unlikely postulated events."

1.1 Containment

Containment for this unit is provided by the reactor building, including its steel liner shell, concrete shield, and building isolation systems. The concrete structure provides shielding from the fission products which could be airborne in the building following the LOCA or other accident that would result in the release of radioactive pollutants. The reactor building is a concrete and steel structure with a cylindrical wall, a flat foundation mat, and shallow dome roof.

The foundation slab is reinforced with conventional steel reinforcing. The foundation subsurface was grouted to provide a stable condition for the reactor building and its associated foundation. The inside of the reactor building is lined with steel to ensure a high degree of leak tightness during all operating and accident conditions. Overall

dimensions of the reactor building are: Height - 192 feet, diameter - 136 feet.

Through the use of isolation systems. piping penetrations into the reactor building have been designed to ensure that the steel liner will not be breached due to the rupture of any process pipe. In addition, all other penetrations are designed to maintain their leak tight posture under all operating accident conditions.

The containment facility provides shielding and hold-up volume for radioactive pollutants that could leak from the core following a LOCA or other accident. This permits removal of the radioactive pollutants through the process of radioactive decay. In this respect, the containment and its accompanying isolation systems function in the same manner as the gaseous radioactive waste disposal system.

TOTAL COST: (R) $ 58,764,987

1.2 Engineered Safeguards Systems

The Engineered Safeguards Systems are those systems and their accompanying supporting systems that are provided to mitigate the consequences of a postulated accident. For the Crystal River Unit #3 Nuclear Plant, the following systems are described as providing this service:

1.2.1 Reactor Building Spray System

The Reactor Building Spray System serves as an Engineered Safeguard and has no normal operating functions. The system reduces leakage of radioactive pollutants from the reactor building to the site and surrounding environment in the event of a major accident by injecting spray water into the reactor

1.2 Engineered Safeguards Systems

1.2.1 Reactor Building Spray System (Cont'd.)

building to reduce its temperature and pressure and to reduce the amount of potential airbourne pollutants in the containment atmosphere.

This latter process is accomplished by addition of sodium hydroxide to the containment spray. This removes certain volatile fission products in the containment, thereby precluding the leakage of such products to the environment.

TOTAL COST: (P) $ 2,011,342

1.2.2 Core Flooding System

The Core Flooding System serves as an Engineered Safeguard. It is not interconnected with any other system and requires no operator or control action to actuate. In the event of a major coolant system piping failure, the Core Flooding System provides for core integrity by automatically flooding the reactor core. The system is composed of two tanks, each connected to a reactor vessel flooding nozzle. The system is a passive Engineered Safeguard system which is designed to prevent extensive damage to the fuel which would result in a very gross release of radioactive fission products. If no core cooling were provided, the decay heat from the fission products in the fuel would cause the fuel cladding to melt and eventually, the fuel itself along with the other reactor materials. In this event, the containment facility might be breached due to pressure increases and thermal action.

TOTAL COST: (P) $ 5,430,871

3

1.2.3 High Pressure Injection System

The High Pressure Injection System consists of high pressure pumps and piping to provide a high pressure supply of cooling water in case of a small rupture in the reactor coolant pressure

(3.) Other Engineered Safeguard Systems are the low-pressure injection system, nuclear and decay heat cooling systems, and boric acid system. These systems are not included as they would be required during normal operating and shutdown refueling operations to remove the residual decay heat present in the nuclear core. However, the Borated Water Storage Tank of the boric acid system has 29 percent of its total capacity dedicated to the use of the Engineered Safeguards described in the project and the proportionate cost is included.

1.2 Engineered Safeguards Systems

1.2.3 High Pressure Injection System (Cont'd.)

boundary that would not result in the immediate release of large volumes of the reactor coolant. The operation of this system is required under these conditions to prevent fuel damage and resultant fission product release as described earlier under Section 1.2.2.

TOTAL COST: (P) $ 4,549,673

1.2.4 Borated Water Storage Tank (BWST)

The Borated Water Storage Tank provides water to Engineered Safeguards Systems and is used for providing water used during refueling operations. The water used during refueling operations is only 71 percent of the total capacity. All of the capacity is dedicated for Engineered Safeguards use. Thus, for this project, only 29 percent of the cost of the tank is claimed as an integral part of the Engineered Safeguards described in Section 1.2.2 and 1.2.3. In addition, use of the BWST in the Engineered Safeguards requires that its reliability of service be guaranteed under all conditions. This requirement results in extensive physical protection of the BWST and all other Engineering Safeguards components.

TOTAL COST: (P) $ 954,250

1.2.5 Emergency Feedwater System

The Emergency Feedwater System supplies water to the steam generators in the event of a loss of the normal condensate water flow through the steam generator. This is necessary to ensure the capability of the steam generators to remove heat from the reactor coolant and thereby prevent rupture of the reactor coolant pressure boundary and resultant potential consequences of radioactive pollutants release from the core.

TOTAL COST: (P) $ 1,940,906

1.2.6 Engineered Safeguards Electrical Systems

The Engineered Safeguards Electrical Systems are those systems that provide the electrical power used to shutdown the reactor and limit the release of radioactive pollutants following a design bases accident such as a LOCA.

The systems are comprised of a preferred power source which receives power from the station 230 KV and substation and transforms the voltage to the utilization levels of the Engineered Safeguards and other service loads vital to maintaining the integrity of plant systems which, without their operation, could result in potential release of radioactive pollutants.

The system provides electrical power, both AC and DC, from the emergency diesel generators for operation of Engineered Safeguards and other vital service loads in the plant to maintain integrity of the plant systems.

In addition, the systems provide:

- Controlling functions such as starting and stopping motors, opening and closing valves and interlocking operation of the Engineered Safeguards Systems.

- Safe operation of the Engineered Safeguards essential and critical systems to prevent release of radiological pollutants.

- Conductor and cable tray system for routing the interconnecting electrical wiring for Engineered Safeguards power and control and other vital service loads.

TOTAL COST: (P) $ 5,618,947

1.3 Conclusions

In the event of a LOCA or other postulated accident, the Containment Facility and Engineered Safeguards Systems have atmospheric pollution control and abatement as their primary function; they do not, in any way, act to prevent accidents. The primary "safety" features of a nuclear power plant, in the sense of accident prevention, are provided by conservative design and construction quality standards and by other plant facilities which are designed to prevent accidents (e.g., the reactivity control system.

As has been previously emphasized, the reactor coolant pressure boundary of a nuclear power plant is specifically required to be

1.3 Conclusions (Cont'd.)

designed (by both NRC and industrial codes) such that a major break in the reactor coolant pressure boundary is highly unlikely during the operational life of the plant.

However, as the size of the hypothesized break in the reactor coolant pressure boundary decreases, the probability of such a smaller break might occur during plant lifetime increases. The occurrence of a small leak in the reactor coolant pressure boundary is considered for analysis purposes by the NRC as a 100 percent probable condition; and, as such, the results of such a leak are considered as a radioactive pollutant source during routine plant operations. In the case of a small break, no damage to the fuel is expected; and the potential magnitude of fission product release to the containment facility is small. The most probable function which the containment facility may serve during its lifetime in regard to breaks, if any breaks should occur, is that of atmospheric pollution control for small breaks.

2. Auxiliary Building

The Auxiliary Building is a concrete structure approximately 200 feet long by 90 feet wide by 100 feet high. The Auxiliary Building houses equipment that is part of the Engineered Safeguards Systems and the radioactive waste systems. The interior walls provide radiation shielding necessary due to the presence of radioactive material being created in the equipment that is part of the radioactive waste systems. The Auxiliary Building additionally houses other systems and components required for normal plant operations.

2. Auxiliary Building (Cont'd)

Forty-five percent of the Auxiliary Building is dedicated to housing systems and components having a pollution control function.

TOTAL COST: (P) $ 13,064,815

3. Nuclear Services Seawater System

The Nuclear Services Seawater System is necessary to supply the cooling water requirements of the nuclear equipment and apparatus essential to the safety of the plant. Such cooling water is necessary to remove the residual heat from the nuclear core. Overheating in the reactor core could result in release of radioactive contaminants to the atmosphere.

Briefly, that portion of the seawater supply external to the buildings consists of two redundant 48-inch intake conduits to convey the seawater from the intake canal to the sump pit. One intake conduit shares a common intake structure, bar racks, and traveling screens with the circulating water system, while the other intake conduit is supplied with a bar rack and intake screen in a separate intake channel. Seawater leaving the nuclear service heat exchangers is conveyed to the discharge canal by way of the two redundant 48-inch discharge conduits. The system provides redundancy to ensure its operability under all conditions. In addition, the system is designed to withstand all hypothesized natural occurrences at the site. Including later modifications to laundry, shower sump and turbine building sump prior to discharge to Nuclear Services System.

TOTAL COST: (P) $ 10,463,952

4. Radioactive Waste Disposal System

The Radioactive Waste Disposal System has been provided to handle the radioactive liquid, gaseous, and solid wastes which are generated during plant operation. The functional operations involved in controlling these waste products are:

a. Collection

b. Storage on site

c. Processing for reuse

d. Processing and sampling for disposal

e. Packaging for shipment off-site

The liquid and gaseous radwaste systems are designed to reduce the activity in liquid and gaseous wastes such that the concentration in routine releases from the plant are significantly less than the regulatory limits. The liquid and gaseous effluents are continually monitored and the discharge is terminated if the effluent concentration exceeds the monitor setpoint. Solid wastes are packaged in DOT approved containers for off-site shipment.

The radioactive waste holdup and processing equipment are located within reinforced concrete, Class 1, structures which are designed to withstand such occurrences as the maximum hypothetical earthquake, tornados, and tornado-driven missiles. The individual items of the waste holdup and processing equipment are designed, fabricated, and erected in conformance with all codes and standards applicable to equipment containing radioactive materials. The major components which would potentially present a radiation hazard are located within rooms that are separated from normally occupied areas and adjacent equipment by concrete walls. Each room is provided with its own floor and equipment drain which routes

any liquid leakage to stainless steel line sumps. Area radiation monitors are strategically located to warn of excessive radiation levels within the area surveyed.

The building ventilation system continuously supplies a fresh air flow from normally occupied areas of the building, through the rooms containing the radioactive waste equipment to the ventilation exhaust discharge system. This system contains fans, roughing and HEPA particulate filters, and a charcoal filter. The air flow is routed to the vent where a gas, iodine, and particulate radiation monitor automatically shuts down the ventilation system in the event its setpoint is exceeded. The capacity of the exhaust system is higher than that of the fresh air supply system so that the air pressure inside the building is slightly below the outside thus preventing an inadvertent release of building atmosphere to the environment.

All tanks and processing equipment which may evolve radioactive gases are vented to the waste gas vent header system to prevent radioactive gases from escaping to the building atmosphere. Other tanks and equipment are vented to the atmosphere of the room in which they are located.

TOTAL COST: (P) $ 10,017,827

5. Spent Fuel Pool Missile Shielding

The Spent Fuel Pools are reinforced concrete structures that are designed to protect spent fuel from damage from airbourne debris generated by tornados and other secondary missiles generated as a result of such occurrences. If damage should occur to the spent fuel, there would be a potential for release of radiological pollutants to the environment. Each enclosure is approximately 30 feet by 24 feet and 43 feet high. A 3/16 inch stainless

steel liner provides leak tightness for the enclosures. All walls for the the pools are 5 feet thick. A 2 foot thick steel reinforced cover shield can be placed over both pools to provide protection from the top.

TOTAL COST: (R) $ 3,159,898

6. Chemical Industrial Waste Water System

All chemical wastes of a non-radiological nature at Crystal River Unit #3 have been routed through a chemical-industrial waste water collection system to evaporation/percolation ponds. Wastes from the water treatment facility, purification demineralizers, floor and equipment drains, cleaning solutions, and other wastes not required to be treated by the liquid radiological waste system are included in this system. A permit for this system has been issued by the Florida Department of Pollution Control. Monitoring wells are located around the ponds to ensure compliance with set standards.

TOTAL COST: (P) $ 294,000

7. Meteorological System

A system has been provided for Crystal River Unit #3 that records, transmits, and displays weather data for the site environs. Through use of this system, it is possible to minimize exposure to the area's populace from radiological pollutants by releasing the pollutants in the direction of lowest population during favorable atmospheric dilution conditions.

TOTAL COST: (P) $ 1,049,700

8. Post Accident Sampling System

A system is provided at Crystal River Unit #3 to allow monitoring of the environment of the plant containment and liquid process streams following a major accident. This system is provided to allow assessment of the levels

8. Post Accident Sampling System (Cont'd.)

of radioactivity in the containment environment to assure proper treatment of the gases and liquids for release and/or disposal and to assist in determining the extent of damage to the reactor.

TOTAL COST: (P) $ 3,995,525

9. Control Complex SO2 Monitor

This equipment is installed at the Crystal River Nuclear Unit site, however, it is rquired to meet the Opacity compliance for Crystal River Units 1 & 2.

TOTAL COST: $ 114,728

*TOTAL POLLUTION EQUIPMENT COST: $ 121,431,421

* Includes Participant's 10 percent interest in CR #3.

COPY

RONALD J. SCHULTZ
PROPERTY APPRAISER

110 N. Apopka Ave., Room 200, Inverness, Florida 32650-4294 • Telephone (904) 637-9820 Fax: (904) 637-9844

June 18, 1992

Florida Power Corporation
Attention: William H. Keith, Manager, Tax Accounting
PO Box 14042
Saint Petersburg, FL 33733

Dear Mr. Keith:

We have not received a DR405 Tangible Personal Property Tax Return or a DR492 Return of Pollution Control Devices for Ad Valorem Tax Purposes executed on behalf of the owner of certain real property and associated tangible personal property located in Citrus County, the ownership of which is established in a Warranty Deed and Bill of Sale dated July 31, 1975, from Florida Power Corporation to Florida Power Corporation and others. This Warranty Deed is recorded in Official Record Book 405, pages 199-202, and Official Record Book 407, pages 812-815, of the Public Records of Citrus County, Florida. The real property is identified by alternate key #1002397 and the corresponding personal property account is identified by alternate key #2619694 and listed on the 1992 tax rolls, now in preparation, under the ownership of Crystal River 3 Participants.

A DR405 Tangible Personal Property Tax Return listing the personal property owned by this group and located in Citrus County with a detailed description of each item or class of items, the age and/or year purchased, the original cost and the taxpayers' estimate of fair market value (in the case of a regulated utility, net book value or percent good as allowed by the Public Service Commission may be used) by location is required by statute.

Under the circumstances, I wish to draw your attention to F.S. 193.072 (1)(a) and (b). These penalties are mandatory although provisions under which they subsequently may be waived are provided in 193.072 (4).

This office will not grant a classified use assessment under F.S. 193.621 unless a DR492 has been properly filed and the specific devices have been found to be pollution control devices as provided by F.S. 403.021(7) and Chapter 17-8 of the Florida Administrative Code. I am attaching a copy of this chapter for your convenience. The DR492 indicates that application should be made by April 1,

however, I know of no penalties and I will assist you in any legal manner should the owners of Crystal River 3 Participants wish to have devices so taxed for 1992.

Sincerely,

Ronald J. Schultz, CFA
Citrus County Property Appraiser

RJS/ts

Florida Department of Environmental Regulation
Twin Towers Office Bldg. ● 2600 Blair Stone Road ● Tallahassee, Florida 32399-2400
Lawton Chiles, Governor
Carol M. Browner, Secretary

June 29, 1992

Mr. Ronald J. Schultz, CFA
Citrus County Property Appraiser
110 North Apopka Avenue
Room 200
Inverness, Florida 32650-4294

RE: Florida Power Corporation, Crystal River Power Plant
Request for Appraisal of Pollution Control Devices

Dear Mr. Schultz:

I have reviewed the material attached to your June 18, 1992 letter concerning the Crystal River Power Plant concerning pollution control devices eligible for assessment under provisions of Section 193.621, F.S. The following items are eligible for assessment pursuant to S. 193.621:

For Crystal River Units 1 & 2

Items 1.1, 1.2, 1.3, 1.4, 2.1, 2.2, 2.3, 3.1, 3.2, and 4.1. Items 1.5, 1.6, 1.7, 1.8, 4.2, and additional plant capacity are not eligible. Item 3.3 may be eligible. FPC should have a registered engineer explain its function and certify that it is a pollution control device as required by Chapter 17-8, F.A.C.

For Crystal River Units 4 & 5

Eligible Items - Precipitators, Oil Spill Protection System, Waste Water Disposal System, Dust Collecting System, Cooling Towers, Fly Ash Removal System, Bottom Ash System, Acoustic Barrier. Ineligble items are - Additional Stack Height, Environmental and Licensing, Laboratory Equipment, and Additional Plant Capacity. Justification will be needed to determine if the Additional Electrical and Piping are part of eligible pollution control devices.

For Crystal River Unit 3

Eligible Items - Items 1.1, 1.2.1, 1.2.2, 1.2.3, 1.2.4, 1.2.5, 1.2.6, 2, 4, 5, and 6. A portion of Item 3. Nuclear Services Seawater System may be eligible with additional justification. However, this system is also necessary for condensing steam as part

of the electrical generation process. Ineligible items are 7, 8, and 9.(an SO_2 monitor does not monitor opacity and controls neither SO_2 or opacity)

If you have further questions concerning this evaluation, I can be contacted at (904) 487-0472.

Sincerely,

Hamilton S. Oven

Hamilton S. Oven, P.E.
Administrator, Siting
Coordination Office

Florida Power

FAX INFORMATION

3201 - 34th Street South
P. O. Box 14042
St. Petersburg, Florida 33733-4040

TELECOPIER NUMBER 813/866-4990
OMNIFAX G9S - Automatic

Telecopier Number 904 487-4938

* Confirmation Number [redacted]

Date 9-3-92

To Hamilton Oven

From Bill Keith

Number of pages to follow 5

If all of the pages are not received, please call 813/866-4678

Thank you.

* If confirmation number is not included, we are not responsible for verification of receipt of this telecopy.

After my FAX has been sent, please do the following with the originals:

☐ DESTROY

☑ RETURN IN MAIL -- MAC B3Q

☐ CALL ME FOR PICK-UP -- FXT. _____

RESP: Office Services

Florida
Power
CORPORATION

September 3, 1992

Hamilton S. Oven, P.E.
Administrator, Siting Coordination Office
Florida Department of Environmental Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Re: Florida Power's request for approval of Pollution Control Devices for ad valorem purposes at the Crystal River Plant

Dear Mr. Oven:

Following, for your review, is a memo prepared by one of our Nuclear Operations' engineers, Rolf Widell. I asked Mr. Widell to respond to your letter of June 29th to Mr. Ronald Schultz, Citrus County Property Appraiser. As we discussed today, I would like to follow-up with a conference call to discuss our response. I will give you a call late tomorrow afternoon. If you are still tied up in meetings, we will try again early next week.

This response addresses only the Nuclear Plant at this point. Again, as I mentioned on the phone, we are planning a response on the fossil units (1&2,4&5), as well. We are currently reviewing our records to determine what we may have provided to your department in earlier years.

I appreciate your participation in this process. Florida Power wants the most correct determination of eligibility for pollution control devices. Any items not eligible become taxable for property tax purposes. This increase tax expense and ultimately the cost to customers of Florida Power Corporation.

Sincerely,

William H. Keith

William H. Keith,
Manager, Tax Accounting Department

Florida Power
CORPORATION

INTEROFFICE CORRESPONDENCE

Nuclear Site Support (Office) NA 2I (MAC) 240-3329 (Telephone)

SUBJECT: Pollution Control Equipment

TO: W. H. Keith

DATE August 31, 1992

I have reviewed the letter from Mr. Schultz, the DER letter and our submittal and provide the following additional information:

Item 3. Nuclear Services Seawater System - The DER comment is incorrect. The Nuclear Services Seawater System is not required for condensing steam as part of the electrical generation process. A separate system, the Circulating Water System provides cooling water for condensing steam. The Nuclear Services Seawater System intake is an integral part of the Circulating Water System intake structure and one of the intake areas is common. However, after reviewing the assets listing from Plant Depreciation and Accounting, none of the intake structure and only one of the eight intake screens is allocated in the total cost of the system identified in FPC's submittal. Therefore, none of this cost should be disallowed.

O.K.

Item 7. Meteorological System - The explanation provided by FPC is accurate; no additional justification can be provided.

N/A

Item 8. Post Accident Sampling System - The primary function of the Post Accident Sampling System (PASS) is assessment of reactor building conditions in terms of radioactive liquid and gaseous products resulting from a Loss of Coolant Accident (LOCA). This assessment is necessary both during the LOCA to assure mitigation actions are being effective and following the event to characterize the liquids and gases such that appropriate processes are used to obtain the maximum removal of radioactive components prior to release to the environment. The system in itself is designed and installed to reduce the potential for inadvertent release of radiological pollutants to the atmosphere. The potential for releases would be increased if sampling was performed using just the normally installed systems and the timeliness of actions would be significantly affected resulting in extended periods of time before treatment could take place. This system was required to be installed, following TMI, by nuclear regulations.

O.K.

Item 9. Control Complex SO_2 Monitor - The explanation FPC provided is incorrect. Crystal River Units 1 and 2 maintain large quantities of concentrated sulfur dioxide (SO_2, 20,000 gallons) for use as part of their off gas treatment process. Crystal River Unit 3 maintains SO_2 monitors that would detect an SO_2 leak from the SO_2 tank and activate an automatic reconfiguration of the ventilation system to shut the air intakes. Without this system, a leak from the tank could result in toxic concentrations of gas being pulled into the nuclear plant control

room and incapacitating the operators. This could result in a serious event and the inability to mitigate the consequences in a timely manner. This, in turn, results in an increase in the radiological pollutants that must be controlled and a higher probability that those pollutants would be released to the environment. Nuclear Regulations require that we maintain the habitability of the control room at all times.

I understand you will use this information to develop a formal response to the DER. Please provide me a copy of the response for review.

Thank you.

Rolf C. Widell, Director
Nuclear Operations Site Support

RCW:mlg

cc: G. L. Boldt

Florida Department of Environmental Regulation
Twin Towers Office Bldg. ● 2600 Blair Stone Road ● Tallahassee, Florida 32399-2400
Lawton Chiles, Governor
Carol M. Browner, Secretary

RECEIVED JUL 6 1992

June 29, 1992

Mr. Ronald J. Schultz, CFA
Citrus County Property Appraiser
110 North Apopka Avenue
Room 200
Inverness, Florida 32650-4294

RE: Florida Power Corporation, Crystal River Power Plant
Request for Appraisal of Pollution Control Devices

Dear Mr. Schultz:

I have reviewed the material attached to your June 18, 1992 letter concerning the Crystal River Power Plant concerning pollution control devices eligible for assessment under provisions of Section 193.621, F.S. The following items are eligible for assessment pursuant to S. 193.621:

For Crystal River Units 1 & 2

Items 1.1, 1.2, 1.3, 1.4, 2.1, 2.2, 2.3, 3.1, 3.2, and 4.1. Items 1.5, 1.6, 1.7, 1.8, 4.2, and additional plant capacity are not eligible. Item 3.3 may be eligible. FPC should have a registered engineer explain its function and certify that it is a pollution control device as required by Chapter 17-8, F.A.C.

For Crystal River Units 4 & 5

Eligible Items - Precipitators, Oil Spill Protection System, Waste Water Disposal System, Dust Collecting System, Cooling Towers, Fly Ash Removal System, Bottom Ash System, Acoustic Barrier. Ineligble items are - Additional Stack Height, Environmental and Licensing, Laboratory Equipment, and Additional Plant Capacity. Justification will be needed to determine if the Additional Electrical and Piping are part of eligible pollution control devices.

For Crystal River Unit 3

Eligible Items - Items 1.1, 1.2.1, 1.2.2, 1.2.3, 1.2.4, 1.2.5, 1.2.6, 2, 4, 5, and 6. A portion of Item 3. Nuclear Services Seawater System may be eligible with additional justification. However, this system is also necessary for condensing steam as part

of the electrical generation process. Ineligible items are 7, 8, and 9.(an SO_2 monitor does not monitor opacity and controls neither SO_2 or opacity)

If you have further questions concerning this evaluation, I can be contacted at (904) 487-0472.

Sincerely,

Hamilton S. Oven

Hamilton S. Oven, P.E.
Administrator, Siting
Coordination Office

File

Florida Department of Environmental Regulation

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

Lawton Chiles, Governor

Carol M. Browner, Secretary

September 8, 1992

Mr. Ronald J. Schultz, CFA
Citrus County Property Appraiser
110 North Apopka Avenue
Room 200
Inverness, Florida 32650-4294

RE: Florida Power Corporation, Crystal River Power Plant
Request for Appraisal of Pollution Control Devices

Dear Mr. Schultz:

Since the review of the material attached to your June 18, 1992 letter concerning the Crystal River Power Plant concerning pollution control devices eligible for assessment under provisions of Section 193.621, F.S., I have received additional information from Florida Power Corporation. The following additional items are eligible for assessment pursuant to S. 193.621:

For Crystal River Unit 3

Eligible Items - Items 1.1, 1.2.1, 1.2.2, 1.2.3, 1.2.4, 1.2.5, 1.2.6, 2, 3, 4, 5, 6, and 8. Ineligible items are 7, and 9.

If you have further questions concerning this evaluation, I can be contacted at (904) 487-0472.

Sincerely,

Hamilton S. Oven

Hamilton S. Oven, P.E.
Administrator, Siting
Coordination Office

cc: William H. Kieth, FPC