Florida Power & Light Company, P.O. Box 14000, Juno Beach, FL 33408-0420

FPL.
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September 16, 2011

Cindy Mulkey
Administrator, Siting Coordination Office
Florida Dept. of Environmental Protection
3900 Commonwealth Boulevard
Tallahassee, FL 32399

Re: West County Energy Center Cooling Towers as Pollution Control Devices

Dear Cindy:

Florida Power & Light Company (FPL) requests that the Florida Department of Environmental Protection (DEP) Siting Coordination Office reverse its May 10, 2011 recommendation to the Palm Beach County Property Appraiser's Office that the cooling towers at FPL's West County Energy Center (WCEC) should not be treated as pollution control devices for purposes of property tax assessment. FPL disagrees with the determination by DEP, and FPL strongly maintains that these cooling towers are pollution control devices. From an examination of the detailed environmental regulations that govern power plants, water use permits and wastewater discharge permits, it is clear that heat is considered a pollutant and that the cooling towers are pollution control devices. Also, in simply reviewing the purpose of the cooling towers at the plant, it is abundantly clear that the cooling towers are pollution control equipment.

Specifically, the cooling towers serve the purpose of protecting and maintaining the quality of the environment and public water supplies by reducing the quantity of water needed to operate the plant and through the control and abatement of heat. This is the public policy of this state as mandated by the Florida Legislature in Section 403.021(2), Florida Statutes. Control and abatement of the heat in the water being used in the operation of the plant is by definition control of a pollutant – heat. DEP has consistently required the reduction of the temperature in water discharged from new power plants, treated the heated water as wastewater, and required construction of cooling towers as a condition of permitting the construction of new power plants. Denying cooling towers are pollution control facilities is a significant change of policy by DEP, which has far-reaching financial impacts on all of the power companies in Florida.

As you are aware, when requested by Property Appraisers in the past, the DEP Siting Coordination Office has determined that power plant cooling towers are necessary to reduce water pollution and are entitled to a reduced property tax assessment as pollution control devices. This previous DEP conclusion was consistent with the tax assessment statutes and consistent with the legislative intent to encourage construction of pollution control devices to protect the air and the water quality in Florida. There can be no dispute that heat is considered a pollutant and the abatement of heat in the water discharged from a cooling plant is for the purpose of removing, reducing or stopping the discharge of a pollutant (heat). Cooling towers are equipment used primarily for pollution control (i.e. removal of heat), and are not necessary for plant operation. The cooling towers are constructed when required by various environmental regulations.

On April 14, 2011, the Palm Beach County Property Appraiser sent a letter to the DEP Siting Coordination office requesting a Determination of Pollution Control for FPL's WCEC pursuant to Section 193.621(5), Florida Statutes. On May 10, 2011, DEP issued its recommendation rejecting the cooling towers as pollution control devices. This decision is incorrect under the applicable statutes based on the following reasons:

DEP Precedent of cooling towers treated as pollution control devices

Beginning with construction of the FPL Putnam Plant in the late 1970's, the DEP had consistently determined that cooling towers are pollution control devices for FPL facilities when the use of cooling towers was necessary to meet environmental regulations. For example, Attachment 1 contains a letter issued by the DEP SCO for St. John's River Power Park indicating that their cooling towers were pollution control devices.

Annual Professional Engineer Certification of Pollution Control Devices

As part of FPL's annual tax filing for WCEC, a Professional Engineer has signed and sealed that certain power plant components, including the cooling towers, are "used primarily" as "pollution control devices". Attachment 2 is a copy of the 2011 filing for WCEC which indicates that all components of the cooling tower (excluding the condensers) are pollution control devices. This determination was made based on the statutory and administrative rule requirements to show that construction of the cooling towers was necessary to reduce or eliminate industrial pollution.

Heat is considered by EPA to be a "pollutant" in discharges of wastewater to waters of the US.

Title 40 CFR Part 122 contains the requirements for the National Pollutant Discharge Elimination System (NPDES) Program. The NPDES program requires permits for the discharge of "pollutants" from any "point source" into "waters of the United States." As defined in 40 CFR 122.2:

> **Pollutant** means dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials (except those regulated under the Atomic Energy Act of 1954, as amended (42 U.S.C. 2011 et seq.)), ***heat,*** wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water.

It is common knowledge that the presence of excess heat in water bodies lowers dissolved oxygen levels and makes aquatic species more susceptible to disease, parasites, and toxic chemicals. Numerous NPDES permits issued for FPL and other companies' power plant facilities have requirements in them that limit the thermal discharges from power plant cooling water systems. Based on these requirements, it is clear that EPA and DEP consider heat to be a pollutant in the context of wastewater discharges and it was necessary for the permit applicant to eliminate or reduce the heat as a pollutant. Many plants utilize cooling towers to meet this requirement. For instance:

History of Requirements for Cooling Tower Use at Power Plants

Power plants that use steam to turn a turbine and generate electricity have been in use for over 100 years. Up until the 1970's, all of these power plants used once-through cooling water systems to provide cool water through condensers to convert steam back to water so it could be pumped back to the boiler drum and be heated again into steam. In Florida, most power plants built between July 1, 1972 and the end of 2001 included some type of closed-cycle cooling (cooling ponds or cooling towers) in lieu of

this once-through cooling. This was due to the requirement for discharges from power plants built after July 1, 1972 to meet the state water quality standards for thermal discharges found in Chapter 62-302.520.

Clean Water Act Section 316 (b) Phase I Requirements for "New" Facilities

Chapter 62-620.100 (3)(y) FAC adopts by reference Title 40 CFR part 125 subpart I, containing requirements applicable to cooling water intake structures for phase I new facilities under section 316 (b) of the Clean Water Act, amended July 9, 2007. Phase I facilities are industrial facilities (including power plants) built after January 2002, which are considered to be "new" facilities. For these Phase I facilities, Section 125.84 requires:

> (b) Track I requirements for new facilities that withdraw equal to or greater than 10 MGD. You must comply with all of the following requirements:
>
> > (1) You must reduce your intake flow, at a minimum, to a level commensurate with that which can be attained by a closed-cycle recirculating cooling water system (e.g. build cooling towers).
>
> (d) Track II requirements state that you must demonstrate that the technologies employed will reduce the level of adverse environmental impact from your cooling water intake structures to a comparable level to that which you would achieve were you to implement the requirements of track I. There are very few practical means to accomplish this.

In summary, almost all power plants built since 2002 are required to incorporate closed cycle cooling into their design to meet thermal water quality standards (e.g. control heat pollution) or 316 (b) Phase I Rule requirements. So the environmental regulatory agencies have concluded that it is necessary for the power plant to construct or install a closed cycle cooling facility to eliminate or reduce industrial water pollution and to reduce water withdrawal and thereby reduce the adverse environmental impact on aquatic organisms as required by Section 316 (b) of the Clean Water Act.

Cooling Towers as Pollution Control Facilities at WCEC

The cooling towers for WCEC Units 1 & 2 are included at WCEC strictly to meet thermal pollution control requirements. Absent those requirements, these cooling towers would never have been installed, as evidenced by the fact that all of the FPL power plants built prior to enactment of the Clean Water Act in 1972 were constructed without any cooling towers. WCEC would have either been built at a different location or would have been built with once-through cooling utilizing Water Conservation Area 1, or perhaps the L-8 Reservoir. The WCEC cooling towers "stop...by physical action, pollutants or contaminants which are a part of entirely of liquid...released to the ambient...water," thereby meeting the definition in Section 62-8.020(3), FAC.

The cooling towers are required by the Palm Beach County (PBC) Development Order for the site that includes the following condition:

> *"Applicant shall not negatively affect water quality or temperature in a manner that will prohibit discharge of water from the mined area to the surrounding canal system as determined by agencies with jurisdiction over the subject area. (ONGOING: PBCWUD - PBCWUD) [This condition is applicable to both Palm Beach Aggregates and the power plant.] (Previous Utilities Condition 2. of Resolution R- 2006-0027, Control No. 1989-052)"*

The cooling towers, more importantly, reduce the volume of water utilized (and thus discharged) by 95-98%, eliminate the need of discharge to surface waters altogether, and allow discharge to the Boulder zone through UIC wells. Therefore, contaminants, especially nutrients, are not discharged to the environment. This allows the use of reclaimed water as a source instead of surface or groundwater sources, allows use of UIC wells to dispose of the effluent, and eliminates discharges to surface water which would contain harmful nutrients.

In summary, FPL maintains that the cooling towers at WCEC are primarily pollution control devices and we request that DEP inform the Palm Beach County Property Appraiser in that regard. FPL appreciates your time to review this matter and we look forward to hearing from you. Please do not hesitate to contact me at (561) 691-7001 with any questions.

Sincerely,

Randall R. LaBauve
Vice-President, Environmental Services

cc: Mike Halpin, Director, Division of Air Resource Management
David Adomatis, Palm Beach County Property Appraiser
Tom Flowers
Peter Cocotos, Esq.
Barbara Linkiewicz

Attachment 1

Historical FDEP Letter for St. Johns River Power Park Indicating that Cooling Towers are Pollution Control Equipment

Department of
Environmental Protection

Lawton Chiles
Governor

Marjory Stoneman Douglas Building
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000

Virginia B. Wetherell
Secretary

August 16, 1994

Mr. A. Thomas Felter, Supervisor
Tangible Personal Property
Duval County Property Appraisers Office
231 East Forsyth Street, Suite 270
Jacksonville, Florida 32202

Re: FPL - St. Johns River Power Park

Dear Mr. Felter:

I have reviewed the information attached to Mr. J. L. Spence's memo dated July 8, 1994, concerning the St. Johns River Power Park (SJRPP). Attached to the memo are tables that list various components of the SJRPP facility showing costs. After reviwing the material submitted, it is my opinion that most of the listed equipment is eligible for assessment at salvage value pursuant to ss 193.621(4), F.S., however there is insufficient detail describing the actual equipment and the equipment's function. A second, technical difficulty is that the list was not provided by an engineer registered in the State of Florida as required by Chapter 62-8, F.A.C., (formerly 17-8).

I need an explanation why the following equipment is primarily for the purpose of pollution control:

1. Ponds - Justify Ladders, Catwalks, & Handrails.

2. Conveyor System

3. Car unloading Structure - Justify all except Drainage System, HVAC, Hopper, and Vacuum Cleaning system.

4. Burner Management System.

5. Pulverized Coal Firing System.

6. Botom Ash Removal System - Justify Truck Scale.

7. Fly Ash Disposal System - Justify truck Scale.

8. Lime Storage Area - Justify Foundation.

9. Limestone Preparation System - Justify Fire Protection System.

10. Absorber Tower System - Justify Elevators and Fire Protection Systems.

11. First/Second Vac. Filter system - Justify Fire Protection System.

12.* Cooling Tower - Justify Lighting System, stairs, ladders, catwalks, and handrails.

13. Justify - Emergency Diesel Engine, Emergency Diesel Compressed Air System, Emergency Generator, Emergency Diesel Fuel system, Emergency Diesel Cooling System, and 6.9 kV Power distribution System.

If you have any questions on this matter, please contact me at (904) 487-0472.

Sincerely,

Hamilton S. Oven

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

* Cooling Towers were approved ultimately. Only issue regarding these towers was lighting towers, stairs, ladders, catwalks, & handrails!

Attachment 2

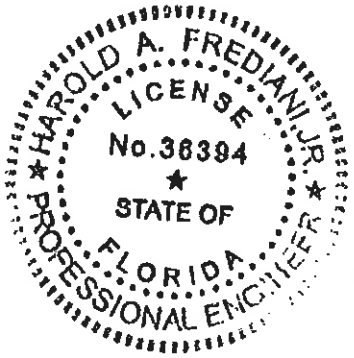
2011 Filing for West County Energy Center

FPL West County Energy Center (Units 1& 2) (page 2 of 2)

FACILITY/ SYSTEM	SYSTEM DESCRIPTION	POLLUTION CONTROL FUNCTION
Noise Abatement Equipment	Industrial Gas Turbine • Acoustical Enclosure	Includes items such as silencers/mufflers and acoustical enclosures that provide noise abatement for the subject system.
	H.R.S.G. Pressure Parts • Silencer/Muffler	
	Reheat Steam System • Silencer/Muffler	
	Steam Turbine • Acoustical Enclosure	
	Turbine Drain System • Silencer/Muffler	
Cooling Tower System	Cooling Tower • Fan/Blower, Complete • Foundation • Superstructure • Drive, Electric Motor • Water Distribution System • Trays, Packing Complete • Gearbox	System mitigates thermal impacts through heat dissipation.
	Cooling Tower Makeup System • Piping • Pump, Complete • Control & Instrumentation System • U/G Injection Wells • Drive, Electric Motor, Complete	
Fuel/ Oil/ Chemical Spill Containment/Prevention	Gas Fuel Supply System • Cathodic Protection Equipment	Cathodic protection system protects the integrity of the subject system by preventing or controlling corrosion, thereby providing spill/leak protection.
	Turbine Lube Oil Storage and Transfer • Retaining Wall for Spills	Includes items such as storage tank containment dikes and tank liners that provide spill containment/ protection.
	Diesel (Light) Oil Supply System • Retaining Enclosure	

Harold A Frediani, Jr.
Signature

Name: Harold A. Frediani, Jr.
Golder Associates Inc. Certificate of Authorization No: 1670
Florida Registration No. 36394
Date: March 25, 2011



This is to certify that, to the best of my knowledge and belief, the listed facilities/systems at the **FPL West County Energy Center (Units 1& 2)** are primarily used to provide the following pollution control functions:

FACILITY/ SYSTEM	SYSTEM DESCRIPTION	POLLUTION CONTROL FUNCTION
Air Emission Control Systems	H.R.S.G. Enclosures • CEM-Computer/Microprocessor Miscellaneous Buildings • CEMS Building Shelter	System monitors various air emissions to help ensure compliance with State and Federal air emissions standards. The Continuous Emission Monitoring System (CEMS) is a requirement of the Clean Air Act Amendments of 1990.
	Water Injection System • Water injection system equipment	System reduces NOx emissions by introducing water at the atomizing air manifold.
	Air Intake System • Inlet Fogger System	System controls NOx.
	H.R.S.G. Enclosures • Emission Monitoring System • SCR Duct • SCR Superstructure • SCR Ammonia Injection System • SCR Catalyst • SCR Tank • Afterburners	
Industrial Wastewater Treatment System	Wastewater Treatment System • Control/Instrumentation System • Foundation • Piping • Tank • Pump Complete • Waste Water Treatment Equipment	System captures and treats industrial waste streams, and storm water runoff from equipment and power block areas.
	Ponds (not cooling) • Pond	

Major Location	Ret Units	Util Acct	Retirement Unit Description	Pollution Control Category	Tangible Prop Amount	Real Prop Amount	Eligible %	Total Pol	Tangible Rsrv	Real Prop Rsrv	Total Reserve	Pollution Cntl Net Book	Tangible PC Reserve	Tangible PC NBV
WCEC U1 & U2	343.142.0143	343	142.0143 : AFTERBURNER	Air Emission Control	197,272		100.00%	197,272	9,262	-	9,262	188,010	9,262	188,010
WCEC U1 & U2	343.142.0151	343	142.0151 : EMISSION MONITORING SYST	Air Emission Control	1,156,498		100.00%	1,156,498	54,297	-	54,297	1,102,201	54,297	1,102,201
WCEC U1 & U2	343.142.0152	343	142.0152: CEMS-COMPUTER/MICROPR	Air Emission Control	2,062,858		100.00%	2,062,858	96,851	-	96,851	1,966,008	96,851	1,966,008
WCEC U1 & U2	343.142.0158	343	142.0158 : SCR DUCT	Air Emission Control	2,792,049		100.00%	2,792,049	131,086	-	131,086	2,660,963	131,086	2,660,963
WCEC U1 & U2	343.142.0159	343	142.0159 : SCR SUPERSTRUCTURE	Air Emission Control	2,608,805		100.00%	2,608,805	122,483	-	122,483	2,486,322	122,483	2,486,322
WCEC U1 & U2	343.142.0160	343	142.0160 : SCR AMONIA INJEC SYSTEM	Air Emission Control	2,608,805		100.00%	2,608,805	122,483	-	122,483	2,486,322	122,483	2,486,322
WCEC U1 & U2	343.142.0161	343	142.0161 : SCR CATALYST	Air Emission Control	2,608,805		100.00%	2,608,805	122,483	-	122,483	2,486,322	122,483	2,486,322
WCEC U1 & U2	343.142.0162	343	142.0162 : SCR TANK	Air Emission Control	231,043		100.00%	231,043	10,847	-	10,847	220,196	10,847	220,196
WCEC U1 & U2	341.350.3105	341	350.3105 : CEMS BUILDING/SHELTER, C	Air Emission Control		260,450	100.00%	260,450		12,228	12,228	248,222	-	-
WCEC U1 & U2	343.832.9271	343	832.9271 : WATER INJECTION SYSTEM E	Air Emission Control	31,499		100.00%	31,499	1,479	-	1,479	30,020	1,479	30,020
WCEC U1 & U2	343.834.9339	343	834.9339 : INLET FOGGER SYSTEM	Air Emission Control	314,377		100.00%	314,377	14,760	-	14,760	299,617	14,760	299,617
WCEC U1 & U2	343.376.3692	343	376.3692 : DRIVE, ELECTRIC MOTOR, C	Cooling Ponds	10,548,863		100.00%	10,548,863	495,267	-	495,267	10,053,596	495,267	10,053,596
WCEC U1 & U2	343.376.3693	343	376.3693 : FAN/BLOWER, COMPLETE	Cooling Ponds	19,475,623		100.00%	19,475,623	914,376	-	914,376	18,561,247	914,376	18,561,247
WCEC U1 & U2	343.376.3694	343	376.3694 : FOUNDATION	Cooling Ponds		10,688,611	100.00%	10,688,611	-	501,828	501,828	10,186,783	-	-
WCEC U1 & U2	343.376.3699	343	376.3699 : GEARBOX	Cooling Ponds	-		100.00%	-	-	-	-	-	-	-
WCEC U1 & U2	343.376.3702	343	376.3702 : SUPERSTRUCTURE	Cooling Ponds	18,384,930		100.00%	18,384,930	863,168	-	863,168	17,521,761	863,168	17,521,761
WCEC U1 & U2	343.376.3704	343	376.3704 : TRAYS, PACKING COMPLETE	Cooling Ponds	9,737,814		100.00%	9,737,814	457,188	-	457,188	9,280,626	457,188	9,280,626
WC 1 & U2	343.376.3705	343	376.3705 : WATER DISTRIBUTION SYSTE	Cooling Ponds	3,245,939		100.00%	3,245,939	152,396	-	152,396	3,093,543	152,396	3,093,543
W J1 & U2	343.378.3751	343	378.370X: U/G INJECTION WELLS	Cooling Ponds	19,711,795		100.00%	19,711,795	925,465		925,465	18,786,331	925,465	18,786,331
WCEC U1 & U2	343.378.3750	343	378.3750: Control & Instrumentation	Cooling Ponds	175,082		100.00%	175,082	8,220		8,220	166,862	8,220	166,862
WCEC U1 & U2	343.378.3751	343	378.3751 : DRIVE, ELECTRIC MOTOR, C	Cooling Ponds	580,429		100.00%	580,429	27,251	-	27,251	553,178	27,251	553,178
WCEC U1 & U2	343.378.3754	343	378.3754 : PIPING	Cooling Ponds	3,379,262		100.00%	3,379,262	158,656	-	158,656	3,220,606	158,656	3,220,606
WCEC U1 & U2	343.378.3755	343	378.3755 : PUMP COMPLETE	Cooling Ponds	580,429		100.00%	580,429	27,251	-	27,251	553,178	27,251	553,178
WestCountyEC U1	376.3702	343	376.3702 : SUPERSTRUCTURE	Cooling Ponds	291,563		100.00%	291,563	5,020		5,020	286,543	5,020	286,543
WestCountyEC U2	376.3702	343	376.3702 : SUPERSTRUCTURE	Cooling Ponds	314,712		100.00%	314,712	4,402		4,402	310,310	4,402	310,310
WCEC U1 & U2	343.476.5697	343	476.5697: Retaining wall for spills	Fuel Oil or Chemical Spills	798,753		100.00%	798,753	37,501		37,501	761,252	37,501	761,252
WCEC U1 & U2	342.522.6203	342	522.6203 : CATHODIC PROTECTION EQUI	Fuel Oil or Chemical Spills	24,123		100.00%	24,123	1,133	-	1,133	22,990	1,133	22,990
WCEC U1 & U2	342.523.6239	342	523.6239 : RETAINING ENCLOSURE	Fuel Oil or Chemical Spills		4,711,390	100.00%	4,711,390		221,199	221,199	4,490,191	-	-
WCEC U1 & U2	343.143.0194	343	143.0194 : SILENCER/MUFFLER	Noise Abatement Equipment	215,442		100.00%	215,442	10,115	-	10,115	205,327	10,115	205,327
WCEC U1 & U2	343.145.0264	343	145.0264 : ACOUSTICAL ENCLOSURE	Noise Abatement Equipment	293,397		100.00%	293,397	13,775	-	13,775	279,622	13,775	279,622
WCEC U1 & U2	343.262.1516	343	262.1516 : SILENCER/MUFFLER	Noise Abatement Equipment	2,883,985		100.00%	2,883,985	135,402	-	135,402	2,748,582	135,402	2,748,582
WCEC U1 & U2	343.271.1543	343	271.1543 : ACOUSTIC ENCLOSURE	Noise Abatement Equipment	606,888		100.00%	606,888	28,493	-	28,493	578,395	28,493	578,395
WCEC U1 & U2	343.464.5507	343	464.5507 : SILENCER/MUFFLER	Noise Abatement Equipment	282,354		100.00%	282,354	13,256	-	13,256	269,098	13,256	269,098
WCEC U1 & U2	341.210.1201	341	210.1201 : POND	Waste Water Treatment			100.00%	-	-	-	-	-	-	-
WCEC U1 & U2	341.504.6086	341	504.6086 : CONTROL/INSTRUMENTATION	Waste Water Treatment	131,110		100.00%	131,110	6,156	-	6,156	124,955	6,156	124,955
WCEC U1 & U2	341.504.6088	341	504.6088 : FOUNDATION	Waste Water Treatment		866,763	100.00%	866,763	-	40,694	40,694	826,069	-	-
WCEC U1 & U2	341.504.6090	341	504.6090 : PIPING	Waste Water Treatment	3,257,491		100.00%	3,257,491	152,938	-	152,938	3,104,552	152,938	3,104,552
WCEC U1 & U2	341.504.6091	341	504.6091 : PUMP COMPLETE	Waste Water Treatment	895,094		100.00%	895,094	42,024	-	42,024	853,070	42,024	853,070
WC 1 & U2	341.504.6092	341	504.6092 : TANK	Waste Water Treatment	1,041,301		100.00%	1,041,301	48,889	-	48,889	992,412	48,889	992,412
WC 1 & U2	341.504.6096	341	504.6096 : WASTE WATER TREATMENT EQ	Waste Water Treatment	2,191,034		100.00%	2,191,034	102,869	-	102,869	2,088,165	102,869	2,088,165
					113,659,425	16,527,215		130,186,640	5,317,243	775,949	6,093,192	124,093,448	5,317,243	108,342,183