

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
NOTICE OF FINAL PERMIT

In the matter of an  
Application for Permit by:

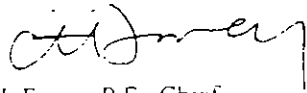
Mr. Pick Talley, Director of Utilities  
Pinellas County Utilities  
PO Box 1780  
Clearwater, Florida 33757

DEP File No. 1030117-003-AC  
PSD-FL-011B and PSD-FL-098B  
Pinellas County Resource Recovery Facility  
Pinellas County

Enclosed is Final Permit Number 1030117-003-AC (PSD-FL-011B and PSD-FL-098B). This permit, which is a modification to PSD permit numbers PSD-FL-011A and PSD-FL-098A, authorizes the applicant, Pinellas County Utilities to construct its Capital Replacement Project for its Pinellas County Resource Recovery Facility located at 3001 110<sup>th</sup> Avenue North, St. Petersburg, Pinellas County. This permit is issued pursuant to Chapter 403, Florida Statutes.

Any party to this order has the right to seek judicial review of it under section 120.68 of the Florida Statutes, by filing a notice of appeal under rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel, Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000, and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within thirty days after this order is filed with the clerk of the Department.

Executed in Tallahassee, Florida.

  
C. H. Fancy, P.E., Chief  
Bureau of Air Regulation

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Notice of Final Permit (including the Final permit) was sent by certified mail (\*) and copies were mailed by U.S. Mail before the close of business on 12/21/00 to the person(s) listed.

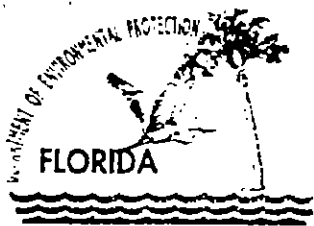
Pick Talley \*  
Don Elias, RTP  
Bill Thomas, P.E., DEP SW District  
Peter Hessling, Pinellas County DEM  
Gregg Worley, EPA  
John Bunyak, NPS

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED on  
this date, pursuant to §120.52, Florida Statutes, with  
the designated Department Clerk, receipt of which is  
hereby acknowledged

  
(Clerk)

(Date)



Jeb Bush  
Governor

# Department of Environmental Protection

Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

David B. Struhs  
Secretary

December 14, 2000

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Pick Talley  
Director of Utilities  
Pinellas County Utilities  
14 S. Fort Harrison Avenue, 5th Floor  
Clearwater, Florida 33756

Re: DEP File No. 1030117-003-AC, PSD-FL-011B and PSD-FL-098B  
Modification of PSD Permits PSD-FL-011A and PSD-FL-098A  
Pinellas County Resource Recovery Facility

The applicant, Pinellas County Utilities, applied on August 30, 2000, to the Department for a modification to PSD permit numbers PSD-FL-011A and PSD-FL-098A for its Pinellas County Resource Recovery Facility located at 3001 110<sup>th</sup> Avenue North, St. Petersburg, Pinellas County. The modification is to authorize construction of its Capital Replacement Project. The Department has reviewed the modification request. The referenced permits are hereby modified as follows. This modification shall supplement conditions imposed by previous permitting actions.

New Specific Condition:

The owner or operator is authorized to construct its Capital Replacement Project as described in the letter application from Pinellas County Utilities dated August 30, 2000, and subsequent related information. The owner or operator is authorized to perform the construction activities generally described as: boiler refurbishment consisting primarily of replacement of the components from the furnace gas exit to the economizer gas exit for boiler unit trains 1, 2 and 3; rebuilding the refuse cranes; refurbishment of the cooling tower; upgrading the instrumentation control systems; refurbishment or replacement of feedwater pumps; tipping floor improvements; and upgrading the existing water regeneration equipment through the replacement of two nominal 100 gallon per minute demineralizer trains.

The owner or operator shall submit to the Department on an annual basis, for a period of five years representative of normal post-change operations of MWC units 1, 2 and 3 ("the units"), within the period not longer than 10 years following the completion of construction of the last unit, information demonstrating that the Capital Replacement Project did not result in a PSD-significant emissions increase. A PSD-significant increase shall be defined as noted in Table 212.400-2 of Chapter 62-212, F.A.C. The information required above shall be based on a comparison of "baseline" past actual annual emissions with actual annual emissions for the given year after completion of the Capital Replacement Project, shall be reported on a calendar year basis, and shall start the first full calendar year following the completion of the Capital Replacement Project's boiler refurbishment of the last unit. The owner or operator shall utilize the "representative actual annual emissions" methodology, defined at Rule 62-210.200(12)(d), F.A.C., and the provisions of 40 CFR 52.21(b)(33), adopted by state rule, in its demonstration. If the Capital Replacement Project results in a PSD-significant emissions increase, or if the owner or operator fails to submit the required information, the units shall be subject to the requirements of PSD at that future time, which shall include a BACT determination for each PSD-significant pollutant.

The owner or operator shall estimate actual annual emissions using the general methodology shown in its letter application and subsequent related information, as discussed generally as follows. The owner or operator shall use the continuous emission monitoring system (CEMS) data to estimate actual annual emissions of the

*"More Protection. Less Process"*

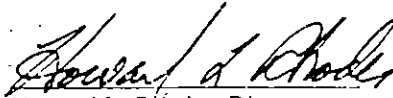
pollutants monitored by the CEMS: NO<sub>x</sub>, SO<sub>2</sub>, and CO. The owner or operator shall use data from all post-retrofit compliance test(s) to estimate past actual annual emissions of other pollutants not monitored by the CEMS: PM/PM<sub>10</sub>, lead, mercury, dioxins, hydrogen chloride. The owner or operator shall use the CEMS data to determine unit availability, which shall be used in determining actual annual emissions. The owner or operator shall use the CEMS data starting from June 1, 2000 until the start of construction of the Capital Replacement Project's boiler refurbishment for its determination of baseline past actual annual emissions. No more than two years of data shall be used to determine the baseline past actual annual emissions. As an alternative to the above, the owner or operator may use other methods approved by the Department.

[Rule 62-4.070(3) and 62-212.300(1)(d), F.A.C.]

A copy of this letter shall be filed with the referenced permit and shall become part of the permit. This permit modification is issued pursuant to Chapter 403, Florida Statutes.

Any party to this order (permit modification) has the right to seek judicial review of it under Section 120.68, F.S., by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel, Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000, and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within thirty days after this order is filed with the clerk of the Department.

Executed in Tallahassee, Florida.



Howard L. Rhodes, Director  
Division of Air Resources  
Management

#### CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this permit modification was sent by certified mail (\*) and copies were mailed by U.S. Mail before the close of business on 12/21/00 to the person(s) listed:

Pick Talley \*  
Don Elias, RTP  
Bill Thomas, P.E., DEP SW District  
Peter Hessling, Pinellas County DEM  
Gregg Worley, EPA  
John Bunyak, NPS

Clerk Stamp

**FILING AND ACKNOWLEDGMENT FILED**, on this date, pursuant to §120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Wendy H. Hays (Clerk) 12/21/00 (Date)

## TECHNICAL EVALUATION AND DETERMINATION

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### 1 APPLICANT NAME AND ADDRESS

Pinellas County Utilities  
14 S. Fort Harrison Avenue, 5th Floor  
Clearwater, Florida 33756

Authorized Representative: Mr. Pick Talley, Director of Utilities

### 2 REVIEWING AND PROCESS SCHEDULE

September 1, 2000	Received letter application for permit modification
September 20, 2000	Received permit application fee
September 25, 2000	Received additional information
October 6, 2000	Received additional information by fax (original received October 11)
October 12, 2000	Received additional information
October 17, 2000	Received revised information
October 20, 2000	Received additional information by fax (original received October 23)
October 20, 2000	Application complete (for purposes of review time clock)
November 2, 2000	Distributed Notice of Intent to Issue and supporting documents
November 10, 2000	Notice of Intent published in the St. Petersburg Times

### 3 FACILITY DESCRIPTION, PROJECT DETAILS AND RULE APPLICABILITY

This existing Pinellas County Resource Recovery Facility has three municipal waste combustor units ("units") that burn municipal solid waste (MSW) and certain other solid wastes to produce steam used to make electricity via steam turbine generators. All three municipal waste combustor units are mass burn water wall boilers with auxiliary natural gas-fired burners, and each has a nominal design rate capacity of 1000 tons of MSW per day, 417 mmBtu per hour, and 250,000 pounds steam per hour (assuming MSW with a heating value of 5000 Btu per pound). Units 1 and 2 began commercial operation in May 1983 and unit 3 began commercial operation in August 1986. The total nominal electric generating capacity of the facility is 75 MW from two steam turbine/generator sets, and the power is supplied to Florida Power Corporation pursuant to contract. The facility includes other emissions units related to operation of the facility, and a contiguous municipal solid waste landfill. The facility is located at 3001 110<sup>th</sup> Avenue North, St. Petersburg, Pinellas County. The facility's units were originally permitted under the federal PSD program (PSD-FL-011 permitted units 1 and 2 and PSD-FL-098 permitted unit 3). The facility was also certified under Florida's Power Plant Siting Act, under orders PA78-11 and PA83-18, and their respective modified orders.

The units are subject to the requirements of Rule 62-204.800(8)(b), F.A.C., and 40 CFR 60 Subpart Cb, the emission guidelines for "existing" large municipal waste combustors. The units were recently retrofitted with new combustion controls and advanced pollution control equipment to meet the emission requirements of this subpart. These requirements were more stringent than the requirements imposed on these units by previous PSD permits. Retrofit construction and initial compliance testing were completed in late 1998 for unit 3, summer 1999 for unit 2 and early 2000 for unit 1. Retrofit construction activities were authorized by an amendment to the PSD permits for the facility, denoted as PSD-FL-011A and PSD-FL-098A.

The applicant applied for a modification of its PSD permits to allow construction of its Capital Replacement Project. The applicant proposed in this project to construct facility improvements that are intended to allow the facility to operate at capacity throughout the useful life of the upgraded emission controls installed during the Subpart Cb retrofit noted above. In essence, this is a life extension project. [Information provided by applicant at a pre-application meeting with the Department July 7, 2000.] The present project will be processed as a PSD permit modification denoted as PSD-FL-011B and PSD-FL-098B.

**TECHNICAL EVALUATION AND DETERMINATION**

The Capital Replacement Project includes improvements throughout the facility: refurbishment of the boilers, cranes, cooling towers and feedwater pumps, upgrades of the instrumentation and controls, replacement of the water treatment system and tipping floor improvements. Of particular importance to this permitting action are the Capital Replacement Project's changes related to boiler refurbishment. All three municipal waste combustor unit boilers are proposed for refurbishment, so the emissions units addressed by this permitting action are:

EMISSIONS UNIT NO.	EMISSIONS UNIT DESCRIPTION
001	Municipal waste combustor unit 1
002	Municipal waste combustor unit 2
003	Municipal waste combustor unit 3

The applicant stated that the units are "electric utility steam generating units" as defined at 40 CFR 52.21(b)(31) and Rule 62-210.200(109), F.A.C., and so the applicant proposed that the facility may use the "representative actual annual emissions" methodology specified at 40 CFR 52.21(b)(33) and Rule 62-210.200(12)(d), F.A.C., to confirm that the project is not subject to the PSD requirements of 40 CFR Part 52 and Rule 62-212.400, F.A.C. Because Florida has a delegated PSD program for sources subject to the Power Plant Siting Act, the analysis of PSD applicability is to be done in accordance with federal rules, particularly 40 CFR 52.21, and the Department may rely explicitly on EPA's interpretation of its rules. The Department can also rely on its rules provided it does so in a manner that is consistent with EPA's program. In reviewing this proposed project, the Department needed to determine whether the applicant's units are electric utility steam generating units, and, if so, if the applicant has met the requirements for the representative actual annual emissions methodology.

The first issue is whether the units are electric utility steam generating units. It should be noted that the Department's present review of whether the units are electric utility steam generating units is for purposes of determining PSD applicability, not the applicability of any NSPS requirement for such units. A plain reading of the definitions noted above appears to confirm the applicant's assertion that the units meet the definition. The units are steam electric generating units which are intended to supply more than one third of the potential electrical output and more than 25 MW electrical output to a utility power distribution system for sale. However, the definitions state that the units must have been constructed for the purpose of supplying that electricity. A municipal waste combustion facility that produces steam to drive an steam turbine electrical generator, such as the applicant's facility, is arguably constructed with more than one purpose, to supply electricity and to combust solid waste (reduce its volume prior to ultimate disposal). It may not be possible to distinguish which purpose is more important as it is conceivable that the facility may not have been constructed unless revenue would be received both from the receipt of solid waste and the sale of electricity. The definitions do not exclude additional "purposes" for the units, and so do not limit consideration to only units that serve the sole purpose of supplying electricity.

EPA has not explicitly written regarding whether MWC units that use steam to generate electricity are electric utility steam generating units. EPA's interpretive rule for case-by-case MACT applicability published May 25, 2000, briefly discusses electric utility steam generating units, for a different purpose than PSD applicability. EPA actually considered this issue within the broader context of determining that combustion turbines are not electric utility steam generating units, even if they are part of a combined cycle system. EPA stated that waste heat recovery units, including duct burners, which are part of a combined cycle system are considered to be steam generating units. In making this assessment EPA relied upon the distinction that steam generating units use steam derived from the combustion of fuel to drive a "steam turbine, which in turn provides shaft power to spin an electric generator and generate electricity." [65 FR 34011.] EPA distinguished this type of electric generator from that of a turbine generator, which uses fuel to directly drive a mechanically coupled electric generator. Clearly, then, EPA

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considers a steam generating unit to be an electrical generator that is driven by extracting energy from steam.

EPA limits the definition of electric utility steam generating units to those units with a minimum generating capacity, which can only be accomplished with a steam generator of a given size and inlet energy requirements, but the definition does not limit the type of boiler or fuels used to create the steam. The term "electric utility" implies that not all types of industrial or commercial facilities are included in the definitions, but the applicant's MWC units, which use steam to generate electricity for sale, appear to meet the definition. Considering the applicant's MWC units to be electric utility steam generating units seems consistent with EPA's published intent regarding the 1992 changes to the PSD program (the so called "WEPCO rule"). In the preamble to these changes, and in its discussion of Alternatives for New Source Review Applicability (part of the so called "new source review reform" proposal), EPA identified the broad criteria used to support the "representative actual annual emissions" methodology for electric utilities. (The methodology is discussed further below.) Generally, in 1992 EPA stated that it was comfortable with the 1992 changes applying to electric utilities because the source population was relatively small, the technology in use relatively uniform, public information would be available to NSR permitting authorities to help confirm future operating conditions, and federal acid rain rules required continuous monitoring or other highly accurate methods for reporting actual emissions. [57 FR 32333.] Clearly, large MWC facilities such as the applicant's, conform with this intent. Although not subject to the acid rain rules, the requirements of 40 CFR 60 Subparts Cb and Eb compel the sources to install continuous monitoring systems and perform accurate emission tests to determine actual emissions. The source population is small, with relatively uniform combustion and control technologies, especially after the implementation of Subparts Cb and Eb. EPA has recently revisited its prior analysis, in light of its belief that changes to utilities are not being reported to permitting authorities. [62 FR 39861.] In its discussion, EPA has additionally noted that electric utilities generally serve a clearly defined local market area. [63 FR 39860.] Although EPA probably intended this to refer to electric service, the applicant's facility also serves a clearly defined local area for receipt and disposal of solid waste. This analogy is important because it is a measure of the applicant's ability to forecast demand growth and future utilization of its units, and is a consideration of the permitting agency when relying on the applicant's projections. (This consideration should not be construed to broaden the scope of the applicability of the WEPCO rule beyond electric utility steam generating units to any commercial or industrial source. EPA has explicit concerns with considering forecasted demand growth in a competitive market economy. [See, for example 63 FR 39861.] The applicant's facility is municipally owned, and its projection of demand is strongly tied to its need to service the limited area of Pinellas County.) The applicant's electrical service is even more limited because it is contracted to sell its net power to one customer, Florida Power Corporation. The facility has been operated to maximize its unit availability, as evidenced by the facility's annual operation reports. As with investor owned electric utilities, public information is available to help confirm the applicant's projection of future demand and utilization, particularly with regard to demand for solid waste disposal. Solid waste reporting is required for each county by the Department's solid waste rules. Population growth data, which will have the major influence on the future demand for solid waste disposal capacity at municipally owned facilities such as the applicant's, is available from sources such as the University of Florida's Bureau of Economic and Business Research. Considering the applicant's units to be electric utility steam generating units appears to be consistent with EPA's intent regarding the WEPCO rule, and the Department considers these units to electric utility steam generating units for purposes of PSD applicability.

Because the units are electric utility steam generating units, the applicant is allowed to use the "representative actual annual emissions" methodology specified at Rule 62-210.200(12)(d), F.A.C., to confirm that the project is not subject to the PSD requirements of Rule 62-212.400, F.A.C. The second issue is whether the applicant has met the requirements for this methodology. This methodology requires

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the applicant to compare actual annual emissions prior to the modification with the annual emissions projected for the two year period following the modification. EPA has written about the representative actual annual emissions methodology in both the preamble to the 1992 changes to the PSD program at 57 FR 32323-6, and in EPA Region 5's May 23, 2000 determination of PSD applicability for Detroit Edison's Dense Pack project.

As noted in the Dense Pack determination, the determination of PSD applicability is a two step process. First, the project must be a physical or operational change that is not excluded from PSD review as routine maintenance, repair or replacement of component parts. This provision is included in Florida's rules under the definition of "modification" at Rule 62-210.200(188), F.A.C., although that definition is not limited to PSD projects. The applicant has not suggested that this project in any way meets that exclusion. The project is a modification as defined by Department rule. Second, the project must result in a PSD-significant increase in emissions. The Department's rules refer to an increase in "actual emissions", which are defined at Rule 62-210.200(12)(d), F.A.C., which, as noted above, provides for the representative actual annual emissions methodology for electric utility steam generating units. Detroit Edison's Dense Pack project is similar to the applicant's project in that both projects are non-routine physical changes that are projected by the source owner to not result in post-change PSD significant emissions increases. In its review of the Dense Pack project, EPA Region 5 concluded that Detroit Edison may "lawfully avoid the major source permitting process by using the unit's representative actual annual emissions to calculate emissions following the change if the source submits information for 5 years following the change to confirm its pre-change projection." [Letter from EPA Region 5 Administrator to Detroit Edison, May 23, 2000.] This is very similar to what EPA wrote in the Federal Register that "any utility which utilizes the 'representative actual annual emissions' methodology to determine that it is not subject to NSR must submit for 5 years after the change sufficient records to determine if the change results in an increase in representative actual annual emissions." [57 FR 32325.] Although the applicant is only required to compare past actual emissions to projected actual emissions for a two year post-change period, the applicant must report post-change emissions for a five year period to confirm its projection. EPA wrote that the additional reporting is a safeguard that future significant actual emissions increases that result from the project will not go unnoticed and unreviewed. [57 FR 32325.] The applicant has proposed that actual emissions will not increase in a PSD significant manner as a result of this project, based on a comparison of past actual to representative future actual annual emissions, and has agreed to the required reporting.

An issue next is the form of any required permit conditions to ensure that the project is not subject to PSD requirements. For sources that are not eligible to use the representative actual annual emissions methodology, the Department would typically provide limits on future potential emissions in any construction permit issued for a modification of an emissions unit. Such limits would be emission limits, which are firm, federally-enforceable limits on future potential emissions. For sources using the representative actual annual emissions methodology, EPA has written that such emission limits are not required. In fact, EPA stated that the only requirement is for "tracking and monitoring post-change utilization and/or emissions levels at the unit to confirm that baseline emission levels are not exceeded as a result of the change." [57 FR 32325.] Although not clear in the cited text, EPA intended that the test be that emissions increases not equal or exceed the PSD significance criteria. EPA wrote that "the intent is to confirm the utility's initial projections rather than annually revisiting the issue of NSR applicability. If however, the reviewing authority determines that the source's emissions have in fact increased significantly over baseline levels as a result of the change, the source would become subject to NSR requirements at that time." [57 FR 32325.] EPA further clarified in the Dense Pack determination that the trigger for PSD review would also include failure to report the required information: "If Detroit Edison fails to comply with the reporting requirements ... it will be required to obtain a PSD permit for the Dense Pack project." [Detroit Edison Applicability Determination Detailed Analysis, undated]

## TECHNICAL EVALUATION AND DETERMINATION

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(presumably May 23, 2000).] Thus, the requirement to track and report actual emissions is an "applicability requirement" rather than an emission limit.

Another issue to be considered is that certain emission increases, those not caused by the change, are not included in the future actual emissions. EPA referred to this as the "causation provision" in the 1992 preamble, where EPA wrote, "where projected increased operations are in response to an independent factor, such as demand growth, which would have occurred ... even in the absence of the physical or operational change, the increased operations ... may be excluded from the projection of the unit's future actual emissions." [57 FR 32327.] As noted in the Dense Pack determination, "[i]n projecting post-change emissions, Detroit Edison does not have to include that portion of the unit's emissions which could have been accommodated before the change and is unrelated to the change, such as demand growth." [Letter from EPA Region 5 Administrator to Detroit Edison, May 23, 2000.] EPA did clarify that increased emissions resulting from efficiency improvements that occur directly because of the project that cause the unit(s) to be utilized more, are not to be excluded from actual emissions: "If efficiency improvements are the predominant cause of the change in emissions and demand growth is not, the exclusion does not apply." [57 FR 32327.] The applicant in this project did not include a projection for demand growth or other independent factors that may increase operations and future emissions. The applicant noted that little demand growth for solid waste disposal is expected beyond the nominal one percent population growth rate that Pinellas County is experiencing. [Discussion with R. Peter Stasis, P.E., of Pinellas County Utilities, pre-application meeting, July 7, 2000.] Independent confirmation of the potential demand growth can be found from the University of Florida's Bureau of Economic and Business Research, which has noted that Pinellas has the fifth largest population in Florida, and its potential for growth is leveling out. [UF Bureau of Economic and Business Research, [www.napa.ufl.edu/99news/pop99.htm](http://www.napa.ufl.edu/99news/pop99.htm)]. The university's 1997 forecasted population for Pinellas County is 905,933 in 2000 and 1,018,919 in 2020, an annual growth rate of less than 1%. [[www.napa.ufl.edu/98news/populati.htm#table](http://www.napa.ufl.edu/98news/populati.htm#table)] The region served by Florida Power Corporation, which receives the electric power from the applicant, is growing at a faster average rate, so demand growth for electric power may be a factor. [ibid.] The applicant is entitled to exclude any actual emissions increase attributable to factors independent of the project, but the applicant must support such exclusion in its future reports. The applicant has not represented that the current project will increase utilization of the units, in and of itself.

The recently completed Subpart Cb retrofit changes are expected to reduce actual emissions from the units (substantially for many pollutants such as dioxin and acid gases) as compared to emissions prior to the retrofit. Because of this, the Department required that the applicant use actual emissions after completion of the retrofit changes for the purposes of determining PSD applicability to this project. The applicant proposed to use the continuous emission monitoring system (CEMS) data to estimate actual annual emissions of the pollutants monitored by the CEMS: NO<sub>x</sub>, SO<sub>2</sub>, and CO. The applicant proposed to use data from all post-retrofit compliance test(s) to estimate actual annual emissions of other pollutants not monitored by the CEMS: PM/PM<sub>10</sub>, lead, mercury, dioxins, hydrogen chloride. The CEMS data will also be used to determine unit availability, which is a factor the applicant will use in making its actual annual emissions estimates. The applicant proposed to use the CEMS data starting from June 1, 2000 until the start of construction of the Capital Replacement Project's boiler refurbishment. The starting date of June 1 was selected by the applicant to provide for sufficient time from completion of the retrofit project for the units to have begun normal operation. The applicant intends to begin construction of the Capital Replacement Project's boiler refurbishment in the fall of 2001. This will provide for twelve or more months of CEMS data, and one or two series of compliance tests, for estimating actual annual emissions. Normally, two years of actual emissions data are required for PSD purposes, but Rule 62-210.200(12)(a), F.A.C., provides for the Department to allow the use of a different time period upon a determination that it is more representative of normal operation of the emissions unit. In this case, where the Department is requiring post Subpart Cb retrofit emissions data, the Department is authorizing the use

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of less than two years of data to determine past actual emissions. The applicant has proposed to use the same methodology to determine future actual emissions following the Capital Replacement Project.

As mentioned above, the CEMS will also be used to document availability of the units. Unit availability is a factor in determining actual emissions. EPA stated that actual emissions should be calculated as the product of hourly emissions and capacity utilization (unit availability). [See, for example, EPA's preamble to the 1992 PSD program changes, 57 FR 32323.] Average availability of the units, determined from the operating hours reported annually by the applicant for 1990 through 1999, was about 81.7%, with a standard deviation of about 4%. The applicant reported that for the period of June 1-July 31, 2000, availability of the units was about 89.8%. It is not surprising that unit availability would increase as a result of the Subpart Cb retrofit project. The units date from the early- to mid-1980s. The units were equipped with combustion controls and electrostatic precipitators that were placed in service when the units were first constructed. The applicant reported that operational problems with the ESPs, such as transient field failures, increased as the units aged. [Telephone call with Don Elias, October 19, 2000.] The retrofit project included a new distributive control system that allowed for quicker response to changes in operating parameters, as well as new advanced emission control equipment, including baghouses which replaced the ESPs. These modernized facilities will allow the units to operate in a more stable manner, with less transient failures, with longer periods of time between planned outages. The averaging period proposed by the applicant will be long enough to include planned outage periods. The applicant expects that with the longer averaging time, unit availability will fall somewhat from 89.8% to about 86%, and the Department does not find fault with this assessment. [Memo from Don Elias, October 19, 2000.]

The applicant did provide a "baseline" estimate of actual emissions and a projection of future actual emissions based on the CEMS data available from June 1 through July 31, 2000. As discussed above, the applicant will revise this estimate based on the complete data available from June 1 until the start of construction of the Capital Replacement Project's boiler refurbishment, to provide for the longest possible period for gathering representative data. At that time, the applicant will also revise its estimate of representative future actual annual emissions. The applicant estimated that any emissions increases associated with this project will not exceed the PSD significance criteria. Based on the limited data to date, emissions are estimated by the applicant as follows in tons per year (TPY):

Pollutant	Current Actual Emissions <sup>1</sup> (TPY)	Rep. Future Actual Emissions (TPY)	Net Increase (TPY)	PSD Significance (TPY)	Subject to PSD?
PM/PM <sub>10</sub>	47	71/61	24/14	25/15	No
SO <sub>2</sub>	85	124	39	40	No
NO <sub>x</sub>	1691	1730	39	40	No
CO	118	217	99	100	No
Pb	0.25	0.84	0.59	0.6	No
Hg	0.23	0.32	0.09	0.1	No
MWC Organics Total PCDD/F	9.8 x 10 <sup>-2</sup>	10.1 x 10 <sup>-2</sup>	3.0 x 10 <sup>-6</sup>	3.5 x 10 <sup>-6</sup>	No
MWC Acid Gases HCl & SO <sub>2</sub>	239	278	39	40	No

<sup>1</sup> Current actual emissions are after completion of the Subpart Cb retrofit construction. Representative future actual emissions are estimated for the two years following completion of the Capital Replacement Project's boiler refurbishment construction.

## TECHNICAL EVALUATION AND DETERMINATION

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In summary, the applicant's proposed Capital Replacement Project is a non-routine physical change that is a modification as defined by Department rule. Because the affected emissions units are electric utility steam generating units, the applicant may lawfully avoid PSD preconstruction review by using the unit's representative actual annual emissions to calculate emissions following the modification. The Department has determined that past actual emissions in this case will be the post-Subpart Cb retrofit emissions. The applicant contends that representative actual annual emissions following the Capital Replacement Project will not be significantly greater than its past actual emissions. Therefore, the applicant may avoid major PSD permitting to the extent it documents its actual emissions and submits information following the modification to confirm its projection.

The proposed project is subject to preconstruction review requirements under the provisions of Chapter 403, F.S., and Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297, F.A.C. The existing facility is located in an area designated, in accordance with Rule 62-204.340, F.A.C., as attainment or unclassifiable for the criteria pollutants ozone, PM<sub>10</sub>, carbon monoxide, SO<sub>2</sub>, nitrogen dioxide and lead. This facility is classified as a Major or Title V Source of air pollution because emissions of at least one regulated air pollutant exceeds 100 tons per year (TPY). At this facility potential emissions of PM/PM<sub>10</sub>, NO<sub>x</sub>, SO<sub>2</sub>, CO and VOC exceed 100 TPY.

This facility is within an industry included in the list of the 28 Major Facility Categories per Table 62-212.400-1 of Chapter 62-212, F.A.C. Because emissions are greater than 100 TPY for at least one criteria pollutant, the facility is also an existing Major Facility with respect to Rule 62-212.400, Prevention of Significant Deterioration (PSD). As noted above, the applicant has proposed that the net increase in emissions of PM/PM<sub>10</sub>, NO<sub>x</sub>, SO<sub>2</sub>, CO, VOC, MWC metals, MWC organics and MWC acid gases will not exceed the PSD significance levels of Table 212.400-2, F.A.C. Therefore this project is not subject to PSD requirements of Rule 62-212.400, F.A.C., for these pollutants.

40 CFR 60.14 defines a modification for purposes of federal New Source Performance Standards to include a change to an existing facility that increases the emission rate of any pollutant, where such rate is defined by that section to be in units of kg/hour. The Capital Replacement Project is not intended to increase the physical capacity of the emissions units, and so will not result in an increase in the short-term emission rates of any pollutant from the emissions units. Therefore, the project is not a modification as defined by the federal rules. The Capital Replacement Project does not constitute a reconstruction project as defined at 40 CFR 60.15 because the capital cost for the regulated portions of the MWC units of \$35 million does not exceed 50% of the fixed capital cost of a new facility, which are estimated to be \$290 million for the portions of the MWC units regulated by the NSPS Subpart Eb. The applicant also estimated total maintenance costs, excluding costs associated with the Subpart Cb retrofit, for the regulated portions of the MWC units over the life of the facility at \$31.5 million. When these costs are added to the costs of this project, the total costs are 23% of the comparable new construction costs, still less than half of the value that is considered reconstruction per federal rule. (All figures are in year 2000 dollars.) Thus, this project is not subject to any federal New Source Performance Standard.

This project is not subject to any unit specific requirements under state rule. The applicant is required to obtain this permit modification for this project because it is a modification as defined by Rule 62-210.200(188), F.A.C., and construction permits are required for modifications pursuant to Rules 62-4.030, 62-210.300(1)(a) and 62-212.300(1)(a), F.A.C.

#### 4 SOURCE IMPACT ANALYSIS

An impact analysis was not required for this project because it is not subject to the requirements of PSD for PM/PM<sub>10</sub>, NO<sub>x</sub>, SO<sub>2</sub>, CO, VOC, MWC metals, MWC organics and MWC acid gases.

## TECHNICAL EVALUATION AND DETERMINATION

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### 5 BACT ANALYSIS AND DEPARTMENT'S DETERMINATION

A BACT determination was not required because this project is not subject to the requirements of PSD for PM/PM<sub>10</sub>, NO<sub>x</sub>, SO<sub>2</sub>, CO, VOC, MWC metals, MWC organics and MWC acid gases. If the Department determines during the reporting period that the project is subject to PSD, BACT will be required at that time. As is required for any BACT determination, at that time the BACT determination shall not result in allowable emissions that are less stringent than those of the applicable NSPS requirements of 40 CFR 60, Subpart Eb, the NSPS for "new" large municipal waste combustors.

### 6 EXCESS EMISSIONS

The PSD permit modification for this project will not revise any existing requirements or provisions regarding excess emissions at these units. The Department expects the applicant to include excess emissions, to the extent quantifiable, in its calculation of actual emissions.

### 7 PRELIMINARY DETERMINATION

Based on the foregoing technical evaluation of the application and additional information submitted by the applicant and other available information, the Department has made a preliminary determination that the proposed project will comply with all applicable state and federal air pollution regulations. The Department's preliminary determination is to issue the draft permit modification to allow construction of the Capital Replacement Project, subject to the terms and conditions of the draft permit modification.

The permit modification for this project authorizes construction of the Capital Replacement Project, but imposes the record keeping and reporting requirements noted above. As discussed above, these requirements establish an applicability limit, so that if representative future actual emissions increase, or if the applicant fails to comply with the reporting requirements, the applicant will be required to undergo PSD review for the Capital Replacement Project.

### 8 FINAL DETERMINATION

The Department distributed a public notice package on November 2, 2000. The Public Notice of Intent to Issue was published in the St. Petersburg Times on November 10, 2000. Comments were received from the applicant's consultant in a memorandum dated November 8, 2000. These comments primarily noted minor typographical errors and suggested minor changes to clarify this determination. The Department corrected the typographical errors in this determination and the permit modification identified by the applicant, and made the changes the applicant requested for clarification. These changes are not significant and do not alter any applicable requirement of the permit modification. No comments were received from the public, EPA or federal land manager.

The final action of the Department is to issue the permit with the changes noted above.

#### DETAILS OF THIS ANALYSIS MAY BE OBTAINED BY CONTACTING:

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