

MEMORANDUM

RECEIVED

OCT 23 2000

TO: Joe Kahn

FROM: Donald F. Elias *DJE*

DATE: October 19, 2000



SUBJECT: Unit Availability at the Pinellas County Resource Recovery Facility

The Emission Guidelines (Subpart Cb) improvements on the Pinellas County Resource Recovery Facility had a very beneficial effect on unit availability. Unit availability increased after these improvements for a variety of reasons, including the increased reliability of the pollution control system (i.e., there were fewer occasions where load needed to be reduced due to tripped fields in the ESPs) and greater emphasis on perfecting the operation and maintenance of the facility. Further, work was performed on the furnace and the interconnects to improve combustion in the furnaces and minimize emissions of CO and organic pollutants. Considerable attention was given to these components of the facility to ensure the Subpart Cb limits for dioxin and other pollutants would be achieved. In addition, a new Distributive Control System (DCS) was installed, which allowed closer monitoring and quicker response to changes in operating parameters. Operational personnel were trained and certified using ASME procedures, as required by the Emission Guidelines. The combination of these factors, and increased management attention, has caused a significant increase in unit availability. Since the 89.83% presented in the original application from the first two month's CEM data are from a short period, we are proposing to utilize the data available from June, 2000 up until construction starts. This will allow a full year of data, at a minimum, to determine representative unit availability. Based on the initial four month period of June through September, which included a two-week planned outage for service on one of the units, the overall unit availability was approximately 86%. We feel that this is in the range where the final annual average will occur.

I hope this clarifies the availability issue for you. Should you require any additional information, please feel free to contact Donald F. Elias, of RTP Environmental Associates, Inc. at (732) 968-9600.

cc: R. Larson/P. Stasis/R. Menke/T. Porter/M. Killeen/R. Henson/L. Koon/S. Reinhart
 D. Dee, Esq./W. Corbin/Proj. File: PCRRF4
B. Thomas, SWP, EPA, NPS



RTP ENVIRONMENTAL ASSOCIATES INC.

AIR • WATER • SOLID WASTE CONSULTANTS

239 U.S. Highway 22 East • Green Brook, New Jersey 08812

(732) 968-9600

LETTER OF TRANSMITTAL

TO Mr. Joe Kahn
Florida Dept. of Environmental Protection
111 South Magnolia
Tallahassee, FL 32301

Date: 10-16-00 Proj. ID: PCRRF4

WE ARE SENDING YOU: [X] Attached [] Under separate cover

VIA: [] 1st Class Mail [X] Federal Express [] Hand Delivery [] Other

THE FOLLOWING ITEMS: a/m.

Table with 4 columns: Copies, Date, No., Description. Row 1: 1, 10-16-00, [], Revised Tables and Pages for the Pinellas County Resource Recovery Facility. Includes a 'RECEIVED' stamp dated OCT 17 2000 from the BUREAU OF AIR REGULATION.

THESE ARE TRANSMITTED AS CHECKED BELOW:

- For approval, For review and comment, Resubmit ___ copies for approval, For your use, Copies returned after loan, For signature, As requested, Returned for corrections

REMARKS: Joe, Here are the revised pages we discussed. Thanks for the help, [Signature]

COPY TO: W. Eorbin

SIGNED: [Signature]

If enclosures are not as noted, kindly notify us at once.



RTP ENVIRONMENTAL ASSOCIATES INC.®

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(732) 968-9600
Fax: (732) 968-9603

October 16, 2000

Mr. Joseph Kahn
Florida Dept. of Environmental Protection
Division of Air Resource Management
2600 Blair Stone Road
Tallahassee, FL 32399-2400

RECEIVED

OCT 17 2000

BUREAU OF AIR REGULATION

Dear Mr. Kahn:

During a review of CEM data for the Pinellas County Resource Recovery Facility (PCRRF), we discovered two errors in our previous submittals for an amendment to PSD Permits PSD-FL-011(A) and PSD-FL-098(A) for the Capital Replacement Project (CRP). The correct CEM average CO and NO_x concentration for June through July from Unit 2 should be 21.1 and 192.7 ppm_{dv} at 7% O₂, respectively (not 12.1 and 192.18 ppm_{dv} at 7% O₂), as shown on the attached, corrected October 13th letter from Wheelabrator Pinellas. This results in estimated current actual annual emission rates for CO and NO_x of 118 and 1691 tons/year, respectively (not 102 and 1687 tons/year).

Therefore, please find attached:

- (1) corrected page 3 and the following attachments to Pinellas County's August 30, 2000 letter from Pick Talley to the Department: corrected August 16th letter (now dated October 13th) from Wheelabrator Pinellas to Donald Elias and the table "*Calculations of Actual Facility Emissions*"; and
- (2) corrected table "*Calculations of Current Actual Emissions for Pinellas County RRF*" attached to Pinellas County's September 20, 2000 letter from Pick Talley to the Department.

The corrections have been ***bolded/italicized*** to assist in your review. If you have any further questions, please feel free to contact me at the above number.

Sincerely,

RTP ENVIRONMENTAL ASSOCIATES, INC.

Donald F. Elias
Principal

cc: P.Talley/P.Stasis/W.Smith, Pinellas County; R.Larson, HDR
D.Deer, Esq., Landers & Parsons; R.Henson/S.Reinhart/M.Killeen/T.Porter, Wheelabrator
B. Thomas, SWD - EPA, NPS

Past actual emissions for most of the "contemporaneous" period (i.e., the past five years) reflect facility emissions with electrostatic precipitator (ESP) control of particulate matter (PM) only. The recent air pollution control (APC) improvements required by the EG replaced the ESPs with spray dry absorbers (SDA) for acid gas control, fabric filter (FF) baghouses for improved PM control, selective noncatalytic reduction (SNCR) systems for NO_x control, and powdered activated carbon injection systems (PACIS) for mercury control. This has resulted in a significant reduction in actual emissions of all PSD pollutants other than uncontrolled combustion-related pollutants like CO³.

The amount of actual facility emissions data reflecting the current SDA/FF/SNCR/PACIS configuration on all three MWCs is extremely limited since the final MWC (Unit No. 1) only recently completed the initial EG compliance test with the new APC equipment in late May 2000. Attached are the most recent CEM data for NO_x, SO₂, and CO which average to **191.5**, 6.9, and **22.0** ppmdv corrected to 7% O₂, respectively, for all three MWC units. The CEM data represent the first two full months (June 1st-July 31st) of facility operation with all three MWCs simultaneously operating under the EG standards. Using the average flow rate of 104,233 dscfm corrected to 7% O₂ for the most recent dioxin tests^b and the overall unit average availability of 1315.1 hours/unit during the period of CEM data, equivalent long-term ton/year emissions were calculated as shown on the attached table. Similarly, available stack test measurements for the current APC configuration were reviewed and equivalent tpy emissions were calculated, again based on the unit availability during the period of CEM data. Due to the extremely limited amount of data, worst-case stack test averages (in lb/hr) were used. These PM, lead, mercury, PCDD/F, and MWC acid gas (HCl) measurements of current actual facility emissions are included on the attached table.

Based on the current actual emissions data and the PSD significance levels, future actual emissions will be limited to the annual emission levels shown on the attached table. At this time, the calculation of future emissions on the attached table does not consider allowable emissions increases due to demand growth. As can be seen, the pollutant with the smallest percentage increase in allowable actual emissions is NO_x. This pollutant is expected to be "controlling" in terms of being the most restrictive to future operations. By comparison, the PSD significance levels for SO₂, CO, and Pb are a large fraction of current actual emissions and compliance is readily expected with future allowable actual emission levels. Since the CRP improvements will take time to implement, current actual emission estimates may be refined based on future information. After the CRP improvements are constructed, future actual emissions will be tracked for up to five years to document that no increase in actual emissions greater than the PSD significance levels occurred.

³Since the EG improvements were mostly adding pollution control equipment, no change in uncontrolled combustion-related pollutant emissions would be expected.

^bDioxin stack tests are used to establish MWC operating loads for future operations and are generally the longest overall stack tests in length of time, providing the most representative flow rate measurements for calculating emission rates.



WHEELABRATOR PINELLAS INC.
A WASTE MANAGEMENT COMPANY

3001 110th Avenue N.
St. Petersburg, FL 33716-2002
(727) 572-9163
(727) 572-4370 Fax

October 13, 2000

Donald Elias
RTP Environmental
239 US Highway 22 East
Green Brook, New Jersey 08812

Dear Don:

Revised October 13, 2000.

The following table summarizes the average steam flow, NO_x, CO, and SO₂ at the Pinellas County Resource Recovery Facility (PCRRF) for all three boilers (Unit 1, 2, and 3):

Boiler	Steam Flow (klbs/hour)	Unit On Line (minutes)	NO _x (ppmdv @ 7% O ₂)	SO ₂ (ppmdv @ 7% O ₂)	CO (ppmdv @ 7% O ₂)
Unit 1	203.8	83,561.7	190.55	10.3	35.1
Unit 2	192.6	73,865.2	192.7	6.28	21.1
Unit 3	197.5	79,282.7	191.36	4.19	9.7

Please note these averages are from 00:00 on 6/1/00 to 23:59 on 7/31/00 CEMS time at the PCRRF (CEMS time remains at Eastern Standard Time). This information is from the ESC computer system. All of which are from the 24-hour report channels.

If you require any further information or have any questions, please feel free to give me a call at (727) 572-9163 x25.

Sincerely,

Steve Reinhart
EH&S Director

Cc: Ron Larson; HDR
Tim Porter, Matt Killeen, Robert Henson; Wheelabrator

Revised October 16, 2000

CALCULATIONS OF ACTUAL FACILITY EMISSIONS

Pollutant	Current Actual Emissions (tpy)	PSD Significance Levels (tpy)	Trigger Level for Future Actual Emissions (tpy)
NO _x	1691	40	1731
SO ₂	85	40	125
CO	118	100	218
PM/PM ₁₀	47	25/15	72/62
Pb	0.25	0.6	0.85
Hg	0.23	0.1	0.33
MWC Organics (Total PCDD/F)	9.8e-05	3.5e-06	1.0e-04
MWC Acid Gases (HCl+SO ₂)	239	40	279

**CALCULATIONS of
CURRENT ACTUAL EMISSIONS
for PINELLAS COUNTY RRF**

Revised October 16, 2000

Information from Wheelabrator Pinellas Inc. August 16, 2000 (revised October 13, 2000) letter:

Average Stack Concentrations (ppmdv at 7% O₂) from CEM data:

NO _x :	(190.55 + 192.7 + 191.36)/3 =	191.5 ppmdv at 7% O₂
SO ₂ :	(10.3 + 6.28 + 4.19)/3 =	6.9 ppmdv at 7% O ₂
CO:	(35.1 + 21.1 + 9.7)/3 =	22.0 ppmdv at 7% O₂

June-July 2000 Operating Rates (percent of available hours):

Unit 1:	83,561.7 min/(60 min/hr)/(1464 hrs) =	95.13%
Unit 2:	73,865.2 min/(60 min/hr)/(1464 hrs) =	84.09%
Unit 3:	79,282.7 min/(60 min/hr)/(1464 hrs) =	<u>90.26%</u>
	Average:	89.83%

Information from Calendar Year 2000 Stack Tests:

Flowrates (dscfm at 7% O₂) during PCDD/F Stack Tests:

Unit 1:	(142,100 dscfm)(20.9%-10.2%)/(20.9%-7%) =	109,386 dscfm at 7% O ₂
Unit 2:	(134,400 dscfm)(20.9%-9.8%)/(20.9%-7%) =	107,327 dscfm at 7% O ₂
Unit 3:	(118,800 dscfm)(20.9%-9.6%)/(20.9%-7%) =	<u>96,578 dscfm at 7% O₂</u>
	Average:	104,430 dscfm at 7% O ₂

Emission Calculations:

Actual Emission Rates (tons/year) for CEM Pollutants:

NO _x :	(191.5 ppmdv)(104430 dscfm)(46 lb/mole)(0.0025956 moles/dscf)(60 min/hr) (8760 hrs/yr)(89.83%)(3 units)/(10 ⁶ ppm)/(2000 lb/ton) =	1691 tons/year
SO ₂ :	(6.9 ppmdv)(104430 dscfm)(64 lb/mole)(0.0025956 moles/dscf)(60 min/hr) (8760 hrs/yr)(89.83%)(3 units)/(10 ⁶ ppm)/(2000 lb/ton) =	85 tons/year
CO:	(22.0 ppmdv)(104430 dscfm)(28 lb/mole)(0.0025956 moles/dscf)(60 min/hr) (8760 hrs/yr)(89.83%)(3 units)/(10 ⁶ ppm)/(2000 lb/ton) =	118 tons/year

Actual Emission Rates (tons/year) for non-CEM Pollutants (see table below):

PM:	(3.94 lb/hr)(8760 hrs/yr)(89.83%)(3 units)/(2000 lb/ton) =	47 tons/year
Pb:	(0.0208 lb/hr)(8760 hrs/yr)(89.83%)(3 units)/(2000 lb/ton) =	0.25 tons/year
Hg:	(0.0197 lb/hr)(8760 hrs/yr)(89.83%)(3 units)/(2000 lb/ton) =	0.23 tons/year
PCDD/F:	(8.33E-6 lb/hr)(8760 hrs/yr)(89.83%)(3 units)/(2000 lb/ton) =	9.8E-5 tons/year
HCl:	(13.0 lb/hr)(8760 hrs/yr)(89.83%)(3 units)/(2000 lb/ton) =	153 tons/year

Actual Emission Rates (tons/year) for "Combined" Pollutants:

MWC Acid Gases:	(85 tons-SO ₂ /year)+(153 tons-HCl/year) =	238 tons/year
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1998-2000 Stack Test Measurements (lbs/hr)						
Pollutant	Unit 1	Unit 2		Unit 3		
	May 2000	Sept 1999	May 2000	Dec 1998	Sept 1999	May 2000
PM	0.52	3.94	0.78	0.46	1.13	2.47
Lead	0.00108	0.02078	0.000684	0.00135	0.00262	0.00994
Mercury	0.00588	0.00915	0.00293	0.0197	0.00374	0.00376
PCDD/F	2.12e-07	3.19e-06	1.19e-06	8.33e-06	4.18e-06	1.60e-06
HCl	10.2	12.5 ^a	7.1	13.0 ^a	10.2 ^a	5.8

^aBased on the average HCl concentration (ppmdv at 7% O₂) and the average flowrate and oxygen content during the PCDD/F stack test (dscfm at 7% O₂) for the same unit and year.



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Florida Dept. of Environmental Protection
111 South Magnolia
Tallahassee, FL 32301

Date: 10-16-00 Proj. ID: PCRRF4

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VIA: [] 1st Class Mail [X] Federal Express [] Hand Delivery [] Other

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Principal

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D.Deer, Esq., Landers & Parsons; R.Henson/S.Reinhart/M.Killeen/T.Porter, Wheelabrator
E. Stennis, SUD EPA, NPS

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St. Petersburg, FL 33716-2002
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(727) 572-4370 Fax

October 13, 2000

Donald Elias
RTP Environmental
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Green Brook, New Jersey 08812

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Steve Reinhart
EH&S Director

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Revised October 16, 2000

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CO	118	100	218
PM/PM ₁₀	47	25/15	72/62
Pb	0.25	0.6	0.85
Hg	0.23	0.1	0.33
MWC Organics (Total PCDD/F)	9.8e-05	3.5e-06	1.0e-04
MWC Acid Gases (HCl+SO ₂)	239	40	279

**CALCULATIONS of
CURRENT ACTUAL EMISSIONS
for PINELLAS COUNTY RRF**

Revised October 16, 2000

Information from Wheelabrator Pinellas Inc. August 16, 2000 (revised October 13, 2000) letter:

Average Stack Concentrations (ppmdv at 7% O₂) from CEM data:

NO _x :	$(190.55 + 192.7 + 191.36)/3 =$	191.5 ppmdv at 7% O₂
SO ₂ :	$(10.3 + 6.28 + 4.19)/3 =$	6.9 ppmdv at 7% O ₂
CO:	$(35.1 + 21.1 + 9.7)/3 =$	22.0 ppmdv at 7% O₂

June-July 2000 Operating Rates (percent of available hours):

Unit 1:	$83,561.7 \text{ min}/(60 \text{ min/hr})/(1464 \text{ hrs}) =$	95.13%
Unit 2:	$73,865.2 \text{ min}/(60 \text{ min/hr})/(1464 \text{ hrs}) =$	84.09%
Unit 3:	$79,282.7 \text{ min}/(60 \text{ min/hr})/(1464 \text{ hrs}) =$	<u>90.26%</u>
Average:		89.83%

Information from Calendar Year 2000 Stack Tests:

Flowrates (dscfm at 7% O₂) during PCDD/F Stack Tests:

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Unit 2:	$(134,400 \text{ dscfm})(20.9\%-9.8\%)/(20.9\%-7\%) =$	107,327 dscfm at 7% O ₂
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Average:		104,430 dscfm at 7% O ₂

Emission Calculations:

Actual Emission Rates (tons/year) for CEM Pollutants:

NO _x :	$(191.5 \text{ ppmdv})(104430 \text{ dscfm})(46 \text{ lb/mole})(0.0025956 \text{ moles/dscf})(60 \text{ min/hr})$ $(8760 \text{ hrs/yr})(89.83\%)(3 \text{ units})/(10^6 \text{ ppm})/(2000 \text{ lb/ton}) =$	1691 tons/year
SO ₂ :	$(6.9 \text{ ppmdv})(104430 \text{ dscfm})(64 \text{ lb/mole})(0.0025956 \text{ moles/dscf})(60 \text{ min/hr})$ $(8760 \text{ hrs/yr})(89.83\%)(3 \text{ units})/(10^6 \text{ ppm})/(2000 \text{ lb/ton}) =$	85 tons/year
CO:	$(22.0 \text{ ppmdv})(104430 \text{ dscfm})(28 \text{ lb/mole})(0.0025956 \text{ moles/dscf})(60 \text{ min/hr})$ $(8760 \text{ hrs/yr})(89.83\%)(3 \text{ units})/(10^6 \text{ ppm})/(2000 \text{ lb/ton}) =$	118 tons/year

Actual Emission Rates (tons/year) for non-CEM Pollutants (see table below):

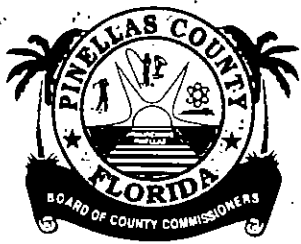
PM:	$(3.94 \text{ lb/hr})(8760 \text{ hrs/yr})(89.83\%)(3 \text{ units})/(2000 \text{ lb/ton}) =$	47 tons/year
Pb:	$(0.0208 \text{ lb/hr})(8760 \text{ hrs/yr})(89.83\%)(3 \text{ units})/(2000 \text{ lb/ton}) =$	0.25 tons/year
Hg:	$(0.0197 \text{ lb/hr})(8760 \text{ hrs/yr})(89.83\%)(3 \text{ units})/(2000 \text{ lb/ton}) =$	0.23 tons/year
PCDD/F:	$(8.33\text{E-}6 \text{ lb/hr})(8760 \text{ hrs/yr})(89.83\%)(3 \text{ units})/(2000 \text{ lb/ton}) =$	9.8E-5 tons/year
HCl:	$(13.0 \text{ lb/hr})(8760 \text{ hrs/yr})(89.83\%)(3 \text{ units})/(2000 \text{ lb/ton}) =$	153 tons/year

Actual Emission Rates (tons/year) for "Combined" Pollutants:

MWC Acid Gases: (85 tons-SO₂/year)+(153 tons-HCl/year) = 238 tons/year

1998-2000 Stack Test Measurements (lbs/hr)						
Pollutant	Unit 1	Unit 2		Unit 3		
	May 2000	Sept 1999	May 2000	Dec 1998	Sept 1999	May 2000
PM	0.52	3.94	0.78	0.46	1.13	2.47
Lead	0.00108	0.02078	0.000684	0.00135	0.00262	0.00994
Mercury	0.00588	0.00915	0.00293	0.0197	0.00374	0.00376
PCDD/F	2.12e-07	3.19e-06	1.19e-06	8.33e-06	4.18e-06	1.60e-06
HCl	10.2	12.5*	7.1	13.0*	10.2*	5.8

*Based on the average HCl concentration (ppmdv at 7% O₂) and the average flowrate and oxygen content during the PCDD/F stack test (dscfm at 7% O₂) for the same unit and year.



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14 SOUTH FORT HARRISON AVENUE
CLEARWATER, FLORIDA 33756
PHONE (727) 464-3588
FAX (727) 464-3595

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BUREAU OF AIR REGULATION

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BUREAU OF AIR REGULATION

October 10, 2000

Mr. Joseph Kahn
Florida Department of Environmental Protection
Division of Air Resource Management
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Dear Mr. Kahn:

As requested in your telephone conversation with RTP Environmental Associates, Inc., attached is an expanded definition of the boiler portion of the Capital Replacement Project at the Pinellas County Resource Recovery Facility that is the subject of our August 30th letter application to the Department.

As noted by the signature of the engineer below, this description is covered by the original P.E. certification for the application.

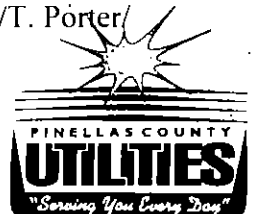
I hope the enclosed material provides the additional information that you need. Should you require any additional information or have further questions, please feel free to call Donald F. Elias at (732) 968-9600.

Sincerely,
PINELLAS COUNTY UTILITIES

Pick Talley
Pick Talley
Director

R. Peter Stasis
R. Peter Stasis, P.E.
Registration No. 0046220

cc: P. Stasis/R. Larson/D. Dee, Esq./W. Smith/R. Henson/S. Reinhart/M. Killeen/T. Porter/
D. Elias (all w/o drawings)
B. Thomas, SWD
EPA
NPS



**BOILER MODIFICATIONS
FOR PINELLAS COUNTY RESOURCE RECOVERY FACILITY**

October 10, 2000

The boiler modifications under this project consist primarily of the replacement of the components from the furnace gas exit to the economizer gas exit for boiler unit trains 1, 2, and 3. This includes pressure parts, such as the economizer inlet piping, inlet header, stringer tubes, intermediate header, tube elements, and outlet header. It also includes the downcomer to the evaporator inlet header and the boiler second pass through wall header, as well as evaporator and superheater headers and evaporator platens. As noted in the original description, other activities related to the Capital Replacement Project include rebuilding the refuse cranes, refurbishing the cooling tower, upgrading the instrumentation control systems, and upgrading the existing water regeneration equipment through the replacement of two independent demineralizer trains capable of producing approximately 100 gallons per minute each.

I've attached some preliminary drawings from D.B. Riley. These drawings are for information only and as such are preliminary and may undergo modification prior to final construction.



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OCT 11 2000

October 6, 2000

Mr. Joseph Kahn
Florida Department of Environmental Protection
Division of Air Resource Management
2600 Blair Stone Road
Tallahassee, FL 32399-2400

BUREAU OF AIR REGULATION

Dear Mr. Kahn:

As discussed during our conversations concerning the Capital Replacement Project for the Pinellas County Resource Recovery Facility, the facility's permit should not contain new emission limits related to the actuals to future actuals test. This issue was discussed in the promulgation of the WEPCO Rule in the July 21, 1992 Federal Register 57 FR 32324-5 (copy attached). As noted in these sections, EPA states:

The EPA does not, however, agree with comments that post change emissions estimates must always be made into permanent federally-enforceable permit conditions... Thus the intent is to confirm 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.

Therefore, instead of emissions limits, we suggest the following language for the permit amendment:

As proposed, the Capital Replacement Program will not result in a modification to a major facility as defined in F.A.C. 62-212.400(d)4(ii). To verify this determination, as noted in F.A.C. 62-210.200(12)(d), the facility shall submit to the Department on an annual basis, for a period of five years representative of normal post-change operations of the unit, within the period not longer than ten years following the change, information demonstrating that the physical or operational change did not result in a significant emissions increase. A significant increase will be

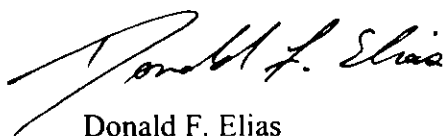
RE: Pinellas County RRF Capital Replacement Project
October 6, 2000
Page 2

defined as noted in Tables 212.400-2. This increase must be in excess of current actual annual emissions, and does not include increases resulting from demand growth. Therefore, if a significant increase does occur, then the permittee must undergo NSR at that time, if applicable.

The information you requested concerning an expanded definition of the boiler portion of the project will be sent to you under separate cover. I hope the above proves useful. Please feel free to call me at (732) 968-9600 if you would like to discuss this further.

Sincerely,

RTP ENVIRONMENTAL ASSOCIATES, INC.®



Donald F. Elias
Principal

DFE/mpj

encl.

cc: P. Stasis
R. Larson
D. Dee, Esq.
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R. Henson
S. Reinhart
M. Killeen
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W. Corbin
Proj. File: PCRRF4

B. Thomas, SWD
EPA
NPS

most appropriate policy would be to adopt a potential-to-potential test.

One commenter noted that the actual-to-future-actual test would end what was felt to be the "unlawful and unfair practice" of using the NSR program to "arbitrarily reduce allowable hours of operation or rates of production for existing sources." Countering the argument that the actual-to-future-actual test could create public health problems, two commenters noted that utilities must comply with all Federal, State and local air quality restrictions regardless of the tests used. Also supporting the actual-to-future-actual test, one commenter pointed out that source owners will be motivated by incentives in the CAA, proposed regulations, and market forces to finance and engineer economic and efficient physical and operational changes at plants so as to achieve excellent environmental control. One commenter favored calculating future emissions over a representative 2-year period within a 5-year period after the change.

3. Comments Generally Opposing the EPA Proposal

One opponent of the proposed methods stated that emission increases at power plants would now be fostered since the proposal will allow utilities to choose their own definitions for when emissions have increased.

In general, opponents of the proposal regarding the pre-change baseline noted that the change is arbitrary and capricious and that there is no analysis in the docket suggesting that any 2-year period is more representative of pre-change maximum emissions. Commenters noted that under the proposal, sources could select the years in which they had the highest emissions in an attempt to minimize the appearance of an increase and escape NSR. One commenter noted that the change in baseline calculation methodology would give utilities such flexibility in refurbishing, repowering, and life extension projects as to bias competitive power markets towards the continued use of existing old units rather than the construction of new ones.

Opponents to the use of future actual emissions stated that there is no reasoned basis for an unenforceable representative actual emissions approach, and application of this test to electric utilities is not consistent with EPA's established policy toward other sources. Other comments contended that the future actual test ignores all past precedents and that, in determining whether a change triggers NSR, EPA should compare actual emissions for the

current unit to potential emissions from the altered source; the future actual test does not guard against artificially low estimates made by sources to escape NSR, nor does it protect against substantial increases made immediately after the 2-year period; and the future actual emissions calculation procedure amounts to self-regulation and is easily subject to abuse.

State and local air agencies generally opposed the future actual method of calculating post-change emissions. One noted that the appropriate emission increase test should be determined on a case-by-case basis. One agency noted that the actual-to-future actual approach results in a significant relaxation of title I NSR requirements and would allow utilities to upgrade equipment which may have lost significant generating capacity without the equipment being subject to NSR, hampering local air quality attainment and maintenance efforts. There were several comments that future emissions cannot be reasonably determined solely on past operating history. One State noted that direction is needed on how actual versus potential emissions are estimated.

A few commenters addressed the 2-year period after the proposed change which is the basis for calculating the future actual emissions. Opponents of the future actual concept stated that use of such a provision would result in unrealistically low future emissions projections and shield a company against efforts to enforce NSR requirements at a source that increased emissions 3 years after making physical changes.

An environmental group and several State agencies noted that the projected post-change emissions should become an enforceable permit condition in order to commit a source to limit its future emissions to a specific amount and to provide assurance that these projections are reasonable estimates of expected emissions. If a source will not accept such a permit condition, then the source should have to use potential post-change emissions.

4. Comments Suggesting Revisions to the Proposal

Three commenters suggested a more flexible test for ascertaining SO₂ increases for determining applicability of NSR and NSPS requirements, namely a measure of pollution per unit of electrical output.

a. Commenters made the following specific suggestions for changes surrounding the future actual calculation method:

(1) Develop guidelines to assist States in making like-kind determinations;

(2) Require like-kind replacements to use the representative actual annual emissions for calculation of actual emissions;

(3) Define "like-kind replacement" to include complete replacement of an existing emissions unit;

(4) Define "routine repair and replacement";

(5) Apply the actual-to-actual test to like-kind replacement of an entire emitting unit;

(6) Allow new units or greenfield plants to rely on future actual emissions if they can reliably project future emissions; and

(7) Consider an alternative way to make the NSR accounting system consistent, such as basing it on past allowable to future allowable emissions.

(b) Other suggestions included the following:

(1) Provide guidance on routine repair and replacement and maintenance activities to include placing units on cold reserve and bringing them back on line, and

(2) Use a 2-year period other than immediately after the change only when the EPA cannot clearly demonstrate that the 2-year period immediately following the change is not representative.

5. The EPA Analysis

The EPA has decided to promulgate the proposed "representative actual annual emissions" methodology for calculating emissions changes at electric utility steam generating units where the changes do not involve the construction of a new, "greenfield" unit or the replacement of an existing one. After a thorough review of the comments, EPA concludes that the comparison of "actual emissions before" to a projection of "actual emissions after" a physical or operational change at an existing utility steam generating unit is workable and, with the added safeguard discussed below, is the most suitable method for evaluating emissions changes at such sources.

Many commenters questioned EPA's proposed presumption that sources may use, as the baseline, emissions from any 2 consecutive years within the 5 years prior to the proposed change without regard to normal source operations. As discussed in the proposal, this presumption is consistent with EPA's decision in WEPCO and the 5-year period for "contemporaneous" emissions

Increases and decreases in 40 CFR 52.21(b)(3)(i)(b).²⁰

Moreover, EPA is not reading "normal source operations" out of the regulation as charged. Rather, the presumption recognizes the nature of utility operations without compromising the existing regulatory language which requires that the pre-change 2-year period used in defining baseline emissions be representative of "normal" operations. For example, as a system a utility's "normal" operations means directly responding to a demand for electricity. A cold winter or hot summer will result in high levels of "normal" operations while a relatively mild year will produce lower "normal" operations. By presumably allowing a utility to use any 2 consecutive years within the past 5, the rule better takes into consideration that electricity demand and resultant utility operations fluctuate in response to various factors such as annual variability in climatic or economic conditions that affect demand, or changes at other plants in the utility system that affect the dispatch of a particular plant. By expanding a baseline for a utility to any consecutive 2 in the last 5 years, these types of fluctuations in operations can be more realistically considered, with the result being a presumptive baseline more closely representative of normal source operation.

The EPA disagrees with comments seeking to allow the use of any 2 consecutive years within the last 5 years of a unit's "operation" rather than the 5 years directly preceding the proposed change. A shifting of the 5-year period would be difficult to harmonize with definitions of contemporaneous contained in the regulations [see, e.g., 40 CFR 52.21(b)(3)(iii)]. This type of open-ended provision would even credit a unit which has been inoperative for 20 or 30 years or longer with a high level of emissions. The EPA notes, however, that as has always been the case under the prior regulations, any source owner or operator may request a determination that another baseline period is more representative of the unit's "normal" operations.

Several commenters opposing today's regulatory changes charged that without appropriate assurances utilities could deliberately underestimate future operations (and thus emissions) for the

purpose of avoiding review or that even where a forthright estimate is made, the forecast may prove inaccurate. The EPA is concerned that without appropriate safeguards increases in future actual emissions that in fact resulted from the physical or operational change could go unnoticed and unreviewed. For this reason, EPA has added the safeguard explained below.

The EPA does not, however, agree with comments that post-change emissions estimates must always be made into permanent federally-enforceable permit conditions. To do so would permanently restrict a utility's legally allowable emission limits to its pre-change actual emissions level unless it subsequently underwent NSR, and would fail to account for the very real possibility that emissions might increase over baseline levels in the future for reasons unrelated to the physical or operational change in question. As discussed more fully in the following section, NSR applies only where the emissions increase is caused by the change. Thus the issue should be viewed more as one of 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.

To guard against the possibility that significant increases in actual emissions attributable to the change may occur under this methodology, EPA is clarifying in the final regulations 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.²¹ Utilities may use continuous emissions monitoring data, operational levels, fuel usage data, source test results or any other readily available data of sufficient accuracy for the purpose of documenting a unit's post-change actual annual emissions.

Where the change does not increase the unit's emissions factor, i.e., the amount of pollution emitted by a source after control per unit of fuel combusted (such as pounds of SO₂ emitted per ton of coal burned), the utility may submit annual utilization data, rather than emissions data, as a method of tracking post-change emissions. If annual utilization data show that the unit

increased utilization above baseline levels, the permitting authority should determine whether the increase resulted from the change. Where a causal link exists between the change and the increase in utilization, the permitting authority should then determine whether emissions have also increased as a result of the change.

Changes that could increase a unit's emissions factor typically involve changes to the boiler itself. (Such changes do not include activities that qualify as pollution control projects under today's rule.) Where these types of changes exist, the utility should submit annual emissions data to the permitting authority. If these data suggests that the utility has increased annual emissions over baseline levels, the permitting authority should inquire whether the increase resulted from the physical or operational change. The utility may demonstrate that any increase was caused by an independent factor, such as demand growth.

Appropriate records are to be submitted to the permitting agency on an annual basis for a period of 5 years from the date the unit begins operations (i.e., post-change operations after an initial shakedown period). A longer period, not to exceed 10 years, may be required by the permitting agency where it has determined that no period within the first 5 years following the change is representative of source operations.

Since it is expected that utilities will submit the same data normally used to report emissions or operational levels under existing Federal, State or local air pollution control agency requirements, EPA does not expect that documentation of post-change actual annual emissions will impose any additional data collection burden on the part of a utility.

The purpose of this provision is to provide a reasonable means of determining whether a significant increase in representative actual annual emissions resulting from a proposed change at an existing utility occurs within the 5 years following the change. Thus 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. The EPA has adopted this approach and the time period because it believes that, in most cases, any emissions increase resulting from a physical or operational change at a utility unit would occur within the first 5 years of normal operation of the unit

²⁰ As discussed, this presumption does not apply to past modifications at an emissions unit for the purpose of determining contemporaneous emission changes at a source and cannot be used to extend the 5-year period specified in that provision [see 40 CFR 52.21(b)(3)(i)(b)].

²¹ This is the only substantive change from the regulations as proposed. However, EPA has also made minor changes to the wording of some of the regulations to address problems with clarity and syntax. Since these changes are not intended to alter the meaning of the regulations, they are not individually discussed in this preamble.



RTP ENVIRONMENTAL ASSOCIATES INC. •

AIR • WATER • SOLID WASTE CONSULTANTS

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(732) 968-9600 • FAX (732) 968-9603

Date: October 6, 2000

Fax #: (850) 922-6979

Page 1 of 5

To: Mr. Joe Kahn

From: Donald F. Elias

FDEP - Division of Air Resource Management

PROJECT NAME: PCRRF4

NOTES: Joe,

Here is the info I discussed & suggested permit language concerning the significance issue. The drawings and boiler definition should come to you from the County directly on Tuesday 10/10/00. Call if any questions. Thanks,

[Signature]

If you should have any questions or problems, please contact: Morey
at (732) 968-9600.

**RTP ENVIRONMENTAL ASSOCIATES INC.®**

AIR WATER SOLID WASTE CONSULTANTS

239 U.S. Highway 22 East
Green Brook, New Jersey 08812-1909
(www.rtpenv.com)(732) 968-9600
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October 6, 2000

Mr. Joseph Kahn
Florida Department of Environmental Protection
Division of Air Resource Management
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Dear Mr. Kahn:

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Therefore, instead of emissions limits, we suggest the following language for the permit amendment:

As proposed, the Capital Replacement Program will not result in a modification to a major facility as defined in F.A.C. 62-212.400(d)-1(ii). To verify this determination, as noted in F.A.C. 62-210.200(12)(d), the facility shall submit to the Department on an annual basis, for a period of five years representative of normal post-change operations of the unit, within the period not longer than ten years following the change, information demonstrating that the physical or operational change did not result in a significant emissions increase. A significant increase will be

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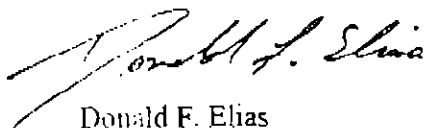
RE: Pinellas County RRF Capital Replacement Project
October 6, 2000
Page 2

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Sincerely,

RTP ENVIRONMENTAL ASSOCIATES, INC.®



Donald F. Elias
Principal

DFE/mpj

encl.

cc: P. Stasis
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W. Corbin
Proj. File: PCRRF4

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The EPA disagrees with comments seeking to allow the use of any 2 consecutive years within the last 5 years of a unit's "operation" rather than the 5 years directly preceding the proposed change. A shifting of the 5-year period would be difficult to harmonize with definitions of contemporaneous contained in the regulations [see, e.g., 40 CFR 52.21(b)(3)(III)]. This type of open-ended provision would even credit a unit which has been inoperative for 20 or 30 years or longer with a high level of emissions. The EPA notes, however, that as has always been the case under the prior regulations, any source owner or operator may request a determination that another baseline period is more representative of the unit's "normal" operations.

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purpose of avoiding review or that even where a forthright estimate is made, the forecast may prove inaccurate. The EPA is concerned that without appropriate safeguards increases in future actual emissions that in fact resulted from the physical or operational change could go unnoticed and unreviewed. For this reason, EPA has added the safeguard explained below.

The EPA does not, however, agree with comments that post-change emissions estimates must always be made into permanent federally-enforceable permit conditions. To do so would permanently restrict a utility's legally allowable emission limits to its pre-change actual emissions level unless it subsequently underwent NSR, and would fail to account for the very real possibility that emissions might increase over baseline levels in the future for reasons unrelated to the physical or operational change in question. As discussed more fully in the following section, NSR applies only where the emissions increase is caused by the change. Thus the issue should be viewed more as one of 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.

To guard against the possibility that significant increases in actual emissions attributable to the change may occur under this methodology, EPA is clarifying in the final regulations 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.²¹ Utilities may use continuous emissions monitoring data, operational levels, fuel usage data, source test results or any other readily available data of sufficient accuracy for the purpose of documenting a unit's post-change actual annual emissions.

Where the change does not increase the unit's emissions factor, i.e., the amount of pollution emitted by a source after control per unit of fuel combusted (such as pounds of SO₂ emitted per ton of coal burned), the utility may submit annual utilization data, rather than emissions data, as a method of tracking post-change emissions. If annual utilization data show that the unit

increased utilization above baseline levels, the permitting authority should determine whether the increase resulted from the change. Where a causal link exists between the change and the increase in utilization, the permitting authority should then determine whether emissions have also increased as a result of the change.

Changes that could increase a unit's emissions factor typically involve changes to the boiler itself. (Such changes do not include activities that qualify as pollution control projects under today's rule.) Where these types of changes exist, the utility should submit annual emissions data to the permitting authority. If these data suggests that the utility has increased annual emissions over baseline levels, the permitting authority should inquire whether the increase resulted from the physical or operational change. The utility may demonstrate that any increase was caused by an independent factor, such as demand growth.

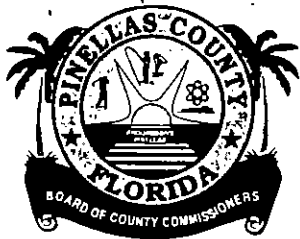
Appropriate records are to be submitted to the permitting agency on an annual basis for a period of 5 years from the date the unit begins operations (i.e., post-change operations after an initial shakedown period). A longer period, not to exceed 10 years, may be required by the permitting agency where it has determined that no period within the first 5 years following the change is representative of source operations.

Since it is expected that utilities will submit the same data routinely used to report emissions or operational levels under existing Federal, State or local air pollution control agency requirements, EPA does not expect that documentation of post-change actual annual emissions will impose any additional data collection burden on the part of a utility.

The purpose of this provision is to provide a reasonable means of determining whether a significant increase in representative actual annual emissions resulting from a proposed change at an existing utility occurs within the 5 years following the change. Thus 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. The EPA has adopted this approach and the time period because it believes that, in most cases, any emissions increase resulting from a physical or operational change at a utility unit would occur within the first 5 years of normal operation of the unit

²⁰ As discussed this presumption does not apply to post modifications at an emissions unit for the purpose of determining contemporaneous emission changes of a source and cannot be used to extend the 5-year period specified in that provision [see 40 CFR 52.21(b)(3)(i)(b)].

²¹ This is the only substantive change from the regulations as proposed. However, EPA has also made minor changes to the wording of some of the regulations to address problems with clarity and syntax. Since these changes are not intended to alter the meaning of the regulations, they are not individually discussed in this preamble.



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PINELLAS COUNTY UTILITIES
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SEP 25 2000

BUREAU OF AIR REGULATION

September 20, 2000

Mr. Joseph Kahn
Florida Dept. of Environmental Protection
Division of Air Resource Management
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Dear Mr. Kahn:

As requested in your September 19 telephone conversation with RTP Environmental Associates (RTP), attached please find calculations of actual facility emissions and certification pages by the Responsible Official and a registered Professional Engineer. This information is in support of our August 30 letter application to the Department concerning the Pinellas County RRF Capital Replacement Project (CRP).

RTP previously sent a check to Ms. Patty Adams of your Division in the amount of \$250 for permitting fees. However, it was our understanding that processing the application would be performed with the monies remaining from our previous PPSA filing. If this is correct, please return the check to RTP.

We will be providing the additional information you requested for the CRP in the near future. If you have any further questions, please feel free to call Donald F. Elias at 732/968-9600.

Sincerely,

PINELLAS COUNTY UTILITIES

Pick Talley
Pick Talley
Director

cc: P. Stasis/R. Larson/D. Dee/W. Smith/R. Henson/S. Reinhart/M. Killeen/
T. Porter/D. Elias



**CALCULATIONS of
CURRENT ACTUAL EMISSIONS
for PINELLAS COUNTY RRF**

September 2000

Information from Wheelabrator Pinellas Inc. August 16, 2000 letter:

Average Stack Concentrations (ppmdv at 7% O₂) from CEM data.

NO _x :	(190.55 + 192.18 + 191.36)/3 =	191 ppmdv at 7% O ₂
SO ₂ :	(10.3 + 6.28 + 4.19)/3 =	6.9 ppmdv at 7% O ₂
CO:	(35.1 + 12.1 + 9.7)/3 =	19.0 ppmdv at 7% O ₂

June-July 2000 Operating Rates (percent of available hours):

Unit 1:	83,561.7 min/(60 min/hr)/(1464 hrs) =	95.13%
Unit 2:	73,865.2 min/(60 min/hr)/(1464 hrs) =	84.09%
Unit 3:	79,282.7 min/(60 min/hr)/(1464 hrs) =	90.26%
	Average:	89.83%

Information from Calendar Year 2000 Stack Tests:

Flowrates (dscfm at 7% O₂) during PCDD/F Stack Tests:

Unit 1:	(142,100 dscfm)(20.9%-10.2%)/(20.9%-7%) =	109,386 dscfm at 7% O ₂
Unit 2:	(134,400 dscfm)(20.9%-9.8%)/(20.9%-7%) =	107,327 dscfm at 7% O ₂
Unit 3:	(118,800 dscfm)(20.9%-9.6%)/(20.9%-7%) =	96,578 dscfm at 7% O ₂
	Average:	104,430 dscfm at 7% O ₂

Emission Calculations:

Actual Emission Rates (tons/year) for CEM Pollutants:

NO _x :	(191 ppmdv)(104430 dscfm)(46 lb/mole)(0.0025956 moles/dscf)(60 min/hr) (8760 hrs/yr)(89.83%)(3 units)/(10 ⁶ ppm)/(2000 lb/ton) =	1687 tons/year
SO ₂ :	(6.9 ppmdv)(104430 dscfm)(64 lb/mole)(0.0025956 moles/dscf)(60 min/hr) (8760 hrs/yr)(89.83%)(3 units)/(10 ⁶ ppm)/(2000 lb/ton) =	85 tons/year
CO:	(19.0 ppmdv)(104430 dscfm)(28 lb/mole)(0.0025956 moles/dscf)(60 min/hr) (8760 hrs/yr)(89.83%)(3 units)/(10 ⁶ ppm)/(2000 lb/ton) =	102 tons/year

Actual Emission Rates (tons/year) for non-CEM Pollutants (see table below):

PM:	(3.94 lb/hr)(8760 hrs/yr)(89.83%)(3 units)/(2000 lb/ton) =	47 tons/year
Pb:	(0.0208 lb/hr)(8760 hrs/yr)(89.83%)(3 units)/(2000 lb/ton) =	0.25 tons/year
Hg:	(0.0197 lb/hr)(8760 hrs/yr)(89.83%)(3 units)/(2000 lb/ton) =	0.23 tons/year
PCDD/F:	(8.33E-6 lb/hr)(8760 hrs/yr)(89.83%)(3 units)/(2000 lb/ton) =	9.8E-5 tons/year
HCl:	(13.0 lb/hr)(8760 hrs/yr)(89.83%)(3 units)/(2000 lb/ton) =	153 tons/year


Actual Emission Rates (tons/year) for "Combined" Pollutants:

MWC Acid Gases:	(85 tons-SO ₂ /year)+(153 tons-HCl/year) =	238 tons/year
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1998-2000 Stack Test Measurements (lbs/hr)						
Pollutant	Unit 1	Unit 2		Unit 3		
	May 2000	Sept 1999	May 2000	Dec 1998	Sept 1999	May 2000
PM	0.52	3.94	0.78	0.46	1.13	2.47
Lead	0.00108	0.02078	0.000684	0.00135	0.00262	0.00994
Mercury	0.00588	0.00915	0.00293	0.0197	0.00374	0.00376
PCDD/F	2.12e-07	3.19e-06	1.19e-06	8.33e-06	4.18e-06	1.60e-06
HCl	10.2	12.5*	7.1	13.0*	10.2*	5.8

*Based on the average HCl concentration (ppmdv at 7% O₂) and the average flowrate and oxygen content during the PCDD/F stack test (dscfm at 7% O₂) for the same unit and year.

Owner/Authorized Representative or Responsible Official

1. Name and Title of Owner/Authorized Representative or Responsible Official: Mr. Pick Talley, Director of Utilities, Pinellas County
2. Owner/Authorized Representative or Responsible Official Mailing Address: Organization/Firm: Pinellas County Utilities Administration Street Address: 14 South Fort Harrison Avenue, 5th Floor City: Clearwater State: Florida Zip Code: 33756
3. Owner/Authorized Representative or Responsible Official Telephone Numbers: Telephone: (727) 464-3438 Fax: (727) 464-3944
4. Owner/Authorized Representative or Responsible Official Statement: <i>I, the undersigned, am the owner or authorized representative*(check here [], if so) or the responsible official (check here [X], if so) of the Title V source addressed in this application, whichever is applicable. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof. I understand that a permit, if granted by the Department, cannot be transferred without authorization from the Department, and I will promptly notify the Department upon sale or legal transfer of any permitted emissions unit.</i>  Signature _____ Date <u>9/21/00</u>

* Attach letter of authorization if not currently on file.

Professional Engineer Certification

1. Professional Engineer Name: R. Peter Stasis Registration Number: 0046220
2. Professional Engineer Mailing Address: Organization/Firm: Pinellas County Utilities Administration Street Address: 14 South Fort Harrison Avenue, 5th Floor City: Clearwater State: Florida Zip Code: 33756
3. Professional Engineer Telephone Numbers: Telephone: (727) 464-3519 Fax: (727) 464-3595

4. Professional Engineer Statement:

I, the undersigned, hereby certify, except as particularly noted herein, that:*

(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this Application for Air Permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and

(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.

If the purpose of this application is to obtain a Title V source air operation permit (check here [], if so), I further certify that each emissions unit described in this Application for Air Permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance schedule is submitted with this application.

If the purpose of this application is to obtain an air construction permit for one or more proposed new or modified emissions units (check here [], if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.

If the purpose of this application is to obtain an initial air operation permit or operation permit revision for one or more newly constructed or modified emissions units (check here [], if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.

AP Stasis, P.E.

Signature

9/21/00

Date

(seal)

* Attach any exception to certification statement.