Barry

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32399-2400

BOB MARTINEZ
GOVERNOR

DALE TWACHTMANN
SECRETARY

July 17, 1987

Mr. Wayne Aronson
Chief
Program Support Section
U.S. EPA, Region IV
345 Courtland Street, N.E.
Atlanta, Georgia 30365

Dear Mr. Aronson:

RE: Broward County Resource Recovery Facility

Enclosed please find the comments the Department received on the Broward County Resource Recovery Facility. The response to each of the comments are attached. If you have any comments or questions, please contact Barry Andrews at the above address or at (904)488-1344.

Sincerely,

Margaret V. James
Bureau of Air Quality
Management

/mj

enclosure

PM
5-4-87
Ft. Lauderdale, FL

Resource Recovery Office
Room 521, 115 South Andrews Avenue
Fort Lauderdale, Florida 33301
(305) 357-6458

April 30, 1987

DER
MAY 6 1987
BAQM

Mr. Wayne Aronson
Air Program Branch
Environmental Protection Agency, Region IV
345 Courtland Street
Atlanta, Georgia 30365

RE: South Broward Resource Recovery Project (PSD-FL-105) -- Furnace Design Specification.

Dear Mr. Aronson,

Enclosed you will find for your file record a copy of the Furnace Design for the South Broward Resource Recovery Project (Section 1.10.1 of Exhibit 1 to the Construction Contract dated August 19, 1986). You will note the Peak Steam Mass Flow Rate for each furnace is 192,000 pounds per hour.

If you have any questions concerning this specification, then please give me a telephone call.

Sincerely yours,

Thomas M. Henderson
Project Director

cc: Celiene Bruce, County Administrator
Tim Smith, Greenberg Traurig Askew
Ken Kosky, KBN Engineering
Ron Mills, Malcolm Pirnie, Inc.
Bruno Dunn, Signal Environmental Systems
Andy Szurgot, Signal Environmental Systems
Pat Patton, Waste Management, Inc.
Steve Smallwood, FDER Air Bureau
Clair Fancy, FDER Air Bureau
Barry Andrews, FDER Air Bureau

1.9.5 Charging Hoppers and Chutes

Charging Hoppers: Charging hoppers shall be designed to withstand the impact of the fully loaded crane grapple.

Charging hoppers shall have a minimum dimension of 23 feet by 19 feet and be independently supported by the charging floor structure and shall be arranged so as to control spillage onto the charging floor.

Charging hopper discharge throat (exit) shall be smaller than furnace feed chute entrance to furnace/boiler and shall be adequately sized to accommodate individual furnace/boiler rated throughput capacity.

Chutes and Cut-Off Gates: Chutes connecting charging hoppers and furnace/boiler feed throat shall be either water cooled or refractory lined.

Between each charging hopper discharge and chute entrance there shall be a cut-off gate to control burnback during furnace/boiler shutdown.

1.10 Combustion Systems.

1.10.1 Furnace Design.

The Company shall provide three (3) independent Von Roll/Babcock & Wilcox mass-burn stocker-fired furnace with multiple pass waterwall type boilers. Each of the three (3) units will have a nameplate capacity of 750 tons per day or a total plant capacity of 2,250 tons per day. The hydraulic ram feeder/grate system shall be a Von Roll No. R-10078 system. The boilers shall be manufactured by Babcock & Wilcox with the following characteristics:

- Normal Steam Mass Flow Rate (lbs/hr) 167,000
- Peak Steam Mass Flow Rate (lbs/hr) 192,000
- Maximum Continuous Capacity (lbs/hr) 167,000
- Outlet Steam Conditions (psig/oF) 900/830
- Feedwater Temperature (oF) 300
- Gas Temperatures (oF):
  - Entrance to Radiation Section 2200
  - Entrance to Convection Section 1150
  - Entrance to Superheater Section 1380
  - Entrance to Economizer Section 630
- Radiation Section:
  - Wall Type Membrane
  - Radiant Surface (ft^2/unit) 7537
  - Tube Thickness (in.) 0.188

- Convection Section:

Convective Surface (ft^2 /unit)	55,315
Tube Thickness (in)	0.180

- Superheat Section:

Convective Surface (ft^2 /unit)	21,504
Tube Thickness	0.203/0.180
Material Type	SA210A/SA209 Incoloy

All Furnace, boiler and Auxiliary equipment shall be manufactured and constructed in accordance with ASME boiler and Furnace construction codes except where otherwise stated. All equipment shall be so stamped. All refractory shall meet minimum ASTM standards. A soot blowing system or tube rapping system shall be provided which will clean boiler tubes. An access door allowing for inspection and maintenance of the tubes and tube cleaning system shall be provided.

Boiler drums shall be Class 1 fusion welded construction, tested before shipment. The steam drums shall be fitted with steam separation baffles yielding dry steam with purity of one part per million (ppm) solids at maximum continuous steaming conditions, at the design pressure and Temperatures, when boiler water concentrations do not exceed standard ABMA limits. Each drums shall have two (2) manhole openings.

Superheaters shall be manufactured of SA210A and SA209 alloy. A bare tube economizer section shall be provided designed for forced circulation with a feed water temperature of 300oF and pressures at a minimum of 125% of the boiler design pressure.

1.10.2 Combustion Air System.

The distribution of primary and secondary air jets shall provide a furnace environment such that temperture and emission standards shall be achieved. Two forced draft fans shall be provided for each boiler with the the following test block capacities:

- Primary Air, ACFM/S.P. (in H2O) - 73,000/21.0
- Secondary Air, ACFM/S.P. (in H2O) - 49,000/36.0

Combustion air fans shall be mounted on vibration elimination bases with non-combustible flexible connections at the inlets and outlets of the fans. They shall be automatically controlled with manual override system in the control room. Fan drives shall have a minimum of 125% of maximum design brake horsepower (BHP).

BROWARD COUNTY, FLORIDA
Office of Resource Recovery
115 South Andrews Avenue
Fort Lauderdale, Florida 33301
305-357-6458

April 27, 1987

Mr. Wayne Aronson
Air Program Branch
Environmental Protection Agency, Region IV
345 Courtland Street
Atlanta, Georgia 30365

RE: South Broward Resource Recovery Project (PSD-FL-105) -- Comments on draft Final Determination and Permit sent under April 17, 1987 cover.

Dear Mr. Aronson,

Enclosed you will find our comments on the draft Final Determination and Permit sent to me under Bruce Miller's cover dated April 17, 1987.

I have marked the changes we would suggest in the margins on the affected pages and placed any comments or explanations in brackets "[ ]". Most of our suggestions are only editorial. I believe the others involve issues we have discussed in the past.

I will be out of town on Tuesday, April 28, 1987, but I will give you a telephone call on Wednesday so we can discuss any question you might have concerning our comments.

Thank you for your consideration of our comments.

Sincerely yours,

Thomas M. Henderson
Project Director

cc: Celiene Bruce, County Administrator
Tim Smith, Greenberg Traurig Askew
Ken Kosky, KBN Engineering
Ron Mills, Malcolm Pirnie, Inc.
Bruno Dunn, Signal Environmental Systems
Andy Zergot, Signal Environmental Systems

Jerry W. Whitt, Waste Management, Inc.
Steve Smallwood, FDER Air Bureau
Clair Fancy, FDER Air Bureau
Barry Andrews, FDER Air Bureau

DRAFT

I. INTRODUCTION

Pursuant to Section 403.505, Florida Statutes, South Broward Resource Recovery Project, Inc. (County), applied to the Florida Department of Environmental Regulation (DER) in April 1985 for certification of a steam electric generating, solid waste energy recovery facility at a site near the intersection of the U.S. Route 441 and State Road 84 in Broward County, Florida. After a thorough review by DER, including public hearings, the Florida Power Plant Siting Board issued a site certification to the County. At the time, FDER believed that such a site certification constituted a legal prevention of significant deterioration (PSD) permit under Chapter 17-2.500 of the Florida air pollution regulations which had been approved by the U.S. Environmental Protection Agency (EPA) on December 22, 1983. In the summer of 1985, EPA became aware that the Florida Electrical Power Plant Siting Act (PPSA), under which the site certification was issued, restricts the authority of the State of Florida to implement any regulation (i.e., PSD Regulations) pertaining to power plants other than those in the Act. Consequently, EPA determined that the Florida PSD regulations were superseded by the PPSA, and that the PPSA could not legally be approved by EPA as part of the State Implementation Plan (SIP) since it did not comply with EPA PSD regulations both procedurally and substantively. Thus, EPA concluded that the proposed South Broward County Resource Recovery Facility (RRF) [redacted] a valid PSD permit under the PPSA. EPA subsequently remanded PSD authority for sources subject to the PPSA while delegating responsibility for the technical and administrative portions of the PSD review to the FDER. The following final determination and permit constitute the culmination of those activities delegated to the FDER by EPA.

of the County's application

could not be issued

EPA's Final action as well as

The applicant plans to construct a 2250 tons per day (TPD) solid waste-to-energy facility to be located near the intersection of the U.S. Route 441 and State Road 84 in Broward County, Florida. Municipal solid waste (MSW) will be combusted to produce steam for power generation. The present plans are to construct three 750 TPD MSW incinerators. An ultimate maximum capacity of 3300 TPD is anticipated in the future which will require the addition of a fourth incinerator. The Broward County Resource Recovery Office will need to submit an application to construct the fourth unit at a future date. The applicant requests that each unit be permitted at 115% of its rated capacity. At 115% capacity, each of the three energy recovery units will have an approximate heat input of 323.6 million Btu per hour based on a heat content of 4500 Btu/lb for MSW. Each incinerator will be [redacted] to operate 8760 hours per year. The yearly tonnage of the various air pollutants emitted were calculated on this basis.

allowed

DRAFT

IV. BEST AVAILABLE CONTROL TECHNOLOGY DETERMINATION (BACT)

A. Particulate Matter

New Source performance standards for incinerators limit particulate emissions from these units to 0.08 grains per dry standard cubic foot (gr/dscf) based on a 12% flue gas concentration of carbon dioxide. NSPS for industrial-commercial-institutional steam generating units limit particulate emissions from these units to 0.10 lb/mmBtu or approximately 0.05 gr/dscf. However, BACT clearinghouse reports incinerators emission limits to be from 0.01 to 0.03 gr/dscf.

(California)

In making the BACT determination, an emissions limit was selected to ensure that hazardous yet unregulated pollutants are controlled in accordance with the North County incinerator PSD remand. The control of dioxins, furans, and other condensible organics is hypothesized to occur due to their condensation and adsorption on particulate matter. As the collective surface area of fine particulate matter is greater than that of larger particles per mass unit and fine particulate matter consists of a significant portion of the total particulate matter, control equipment should be selected which ensures a high degree of control for fine particulates. [redacted]

Discussion of Baghouses is unnecessary and should be deleated!

agreed

EPA has [redacted] to the use of an ESP [redacted]. The limit which was determined to be BACT is 0.015 gr/dscf and represents an approximate increase in ESP anualized costs of $134,000 per year or a cost of $1,035 per ton of additional particulate removed. However, the applicant may install either baghouse or an ESP to meet this limitation.

to provide this high degree of control.

Energy impacts are considered to be insignificantly affected by the increase in removal efficiency, and environmental benefit due to decreased emissions of unregulated hazardous pollutants is not assessable at this time [redacted].

B. Sulfur Dioxide

The emissions of sulfur dioxide from municipal solid waste incinerators [redacted] depend [redacted] on three factors. These factors are: the sulfur content of the waste, the conversion of organic and inorganic sulfur compounds to sulfur dioxide, and the retention of the sulfur dioxide in the ash. This determination assumes that all combined sulfur is converted and none is retained in the ash.

final

The applicant has reported the sulfur content of the waste to be 0.19 wt% maximum and 0.12 wt% average. This results in SO_2 emission rates of 7.6 to 4.8 lb/ton of MSW fired, or, at 4500 Btu/lb, 0.840 to 0.530 lb/mmBtu, respectively. Taking into account the selection of acid gas control devices (explained under acid gas BACT), the resultant emissions of sulfur dioxide

DRAFT

should be reduced by at least 65% [redacted]. EPA and the applicant have agreed that 65% control of sulfur dioxide is BACT and should result in an emissions rate range of 0.290 lb/mmBtu to 0.186 lb/mmBtu. The emissions limit stipulated as BACT in the permit is a 65% reduction of sulfur dioxide emissions, not to exceed 0.310 lb/mmBtu. This limit was based on [redacted], the emissions limits at other facilities and the variability of fuel sulfur content. Economic and environmental considerations are included under the acid gas BACT section.

C. Acid Gases

Acid gases consist primarily of sulfuric acid mist, hydrogen fluoride, and the unregulated pollutant hydrogen chloride. BACT for acid gas control was selected based on the North County remand which allows the consideration of unregulated pollutants in the assessment of BACT for regulated pollutants. The selection of 90% acid gas control includes the reduction of hydrogen chloride emissions in the economic analysis and the reduction of condensible unregulated organic emissions (i.e., dioxins, furans) and heavy metals, due to the gas cooling effects of the acid gas control system proposed, in the environmental benefit analysis.

possible

Sulfuric acid mist is generated as a result of the oxidation of sulfur dioxide to sulfur trioxide in the flue gas. Combination of sulfur trioxide and water results in the formation of sulfuric acid mists. The uncontrolled emissions of this pollutant are estimated to be as high as 200 TPY. BACT of 90% control of these emissions results in an emissions reduction of 180 TPY.

Hydrogen fluoride is created through the combustion of waste materials containing fluorine. Although the reported emissions of hydrogen fluoride vary greatly, the emissions have been reported to be as high as 0.02 lb/mmBtu. However, the applicant predicts an uncontrolled emission rate of 0.04 lb/mmBtu or 170 TPY at this [redacted] facility. A 90% control efficiency for this pollutant results in the control of 153 TPY based on the agreed emission rate of 0.004 lb/mmBtu and is considered BACT.

at other facilities

The formation of hydrogen chloride emissions is due primarily to the combustion of plastics containing chlorine. [redacted] The expected uncontrolled emissions from this facility are 0.47 lb/mmBtu or 2013 tons per year. Acid gas control will provide control of 90% of these emissions of hydrogen chloride or 1993 TPY.

BACT is to be based upon today's conditions not the year 2000.

In assessing the economic impacts, 240 TPY of sulfur dioxide, 180 TPY of sulfuric acid mist, 153 TPY of hydrogen fluoride, and 1994 TPY of hydrogen chloride were used in determining the cost effectiveness of acid gas control. EPA studies have estimated that the cost of acid gas control for this facility to be approximately 3 million dollars in annualized costs. This results in a cost of $1169 per ton of total pollutants (listed above) and is considered reasonable.

The environmental benefits due to application of acid gas control are the reduction of the flue gas temperature for the condensation of dioxins, furans, pyrenes, biphenyls, and mercury which may then be removed by a high efficiency particulate control device. Even though the formation of the toxic organic compounds may be due to the design and operation of the combustion device, studies show that the use of acid gas control and high efficiency particulate removal equipment is capable of achieving a 99+% reduction of the compounds formed. No acceptable levels of exposure to these compounds have been established by EPA and EPA is therefore obligated to ensure the public a minimal exposure to them.

D. Nitrogen Oxides

During combustion of municipal solid waste, NO_x is formed in high temperature zones in and around the furnace flame by the oxidation of atmospheric nitrogen and nitrogen in the waste. The two primary variables that affect the formation of NO_x are the combustion temperatures and the concentration of oxygen. Techniques such as the method of fuel firing, correct distribution of combustion air between overfire and underfire air, exhaust gas recirculation, and decreased heat release rates have been used to reduce NO_x emission. A few add-on control techniques such as catalytic reduction with ammonia and thermal de-NO_x are still experimental and not considered to be demonstrated technology for the proposed project. State-of-the-art control of the combustion variables will be used to limit NO_x emissions at 0.54 lb/mmBtu. This level of control is judged to represent BACT.

NSPS for industrial-commercial-institutional steam generating units regulates nitrogen oxide emissions for this facility if auxiliary fuels exceed 10% of the fuel input. Permit limits have been stipulated to ensure that auxiliary fuel input at each of the units will be less than 10%.

E. Carbon Monoxide

Incomplete combustion causes the emissions of solid carbon particles (e.g., smoke or soot) unburned and/or partially oxidized hydrocarbons and carbon monoxide, as well as resulting in the loss of heat energy. The applicant proposes that good equipment design and operation are BACT for carbon monoxide. Based on technical information relating good combustion practices and BACT determinations from other states, a limit of 0.090 lb/mmBtu is judged to represent BACT for carbon monoxide emissions.

Table V-3

Broward County Resource Recovery Facility
Maximum Air Quality Impacts of the RRF
For Comparison to the De minimus Ambient Levels

Pollutant and Averaging Time	Predicted Impact (ug/m^3)	De minimus Ambient Impact Level (ug/m^3)
SO_2 (24-hour)	6.2	13
PM (24-hour)	0.8	10
NO_2 (Annual)	1.4	14
CO (8-hour) *	11.8	575
Pb (24-hour)	0.03	0.1 (quarterly)
F^- (24-hour)	0.081	0.25
Be (24-hour)	0.00002	0.0005
Hg (24-hour)	0.015	0.025

* Based on an assumed maximum of 200 ppm, 8-hour average.

Table V-6

Broward County Resource Recovery Facility
Comparison of Total Impact with the AAQS

Pollutant and Averaging Time	Maximum Impact Project (ug/m^3)	Maximum Impact (1) All Sources (ug/m^3)	Existing Background (2) (ug/m^3)	Maximum Total Impact (ug/m^3)	National Ambient Air Quality Standard (ug/m^3)
SO_2					
3-hour	26	625	63 (3)	688	1300
24-hour	6	216	28	244	260
Annual	<1 (4)	-	4	-	60
PM					
24-hour	<1 (4)	-	93	-	150
Annual	<<1 (4)	-	59	-	60
NO_2					
Annual	1.4 (4)	-	42	43	100
CO					
1-hour	64 (4)	-	17,000	-	40,000
8-hour	12 (4)	-	10,000	-	10,000
Pb					
3-months	<0.1	-	0.9	1	1.5

(1) Maximum impact includes the FPL Port Everglades and Fort Lauderdale power plants.

(2) Existing background is estimated using the highest monitored concentrations in the area near the proposed facility.

(3) The 3-hour background is estimated by multiplying the 24-hour background by 2.25.

(4) Less than significant, no further analysis completed. For CO, analysis based on 400 ppm, 1 hour maximum and an assumed maximum of 200 ppm, 8-hour average.

DRAFT

Specific Conditions

1. Emission Limitations

a. Stack emissions from each unit shall not exceed the following:

Particulate: 0.0150 gr/dscf dry volume corrected to 12% CO_2.

Sulfur Dioxide: 0.140 lb/mmBtu heat input and 60 ppm (3-hr rolling average, dry volume, corrected to 12% CO_2), or 65% control of total SO_2 emissions.* In no case shall the SO_2 emissions exceed 0.310 lb/mmBtu heat input and 124 ppm (3-hr rolling average, dry volume, corrected to 12% CO_2).

Initial and subsequent compliance tests shall determine the actual emission limit (in ppm) from the control device at 65% control efficiency. The observed average emission rate from compliance testing will be statistically analyzed using a 95% probability level to derive a hypothetical emission rate. The final operating SO_2 emission limit (in ppm) shall be based on this hypothetical emission rate [redacted] (3-hr rolling average, dry volume, corrected to 12% CO_2) [redacted].

but no more than 124 ppm or less than 60 ppm

Nitrogen Oxides: .560 lb/mmBtu (350 ppm, 3-hr rolling average, dry volume, corrected to 12% CO_2).

Carbon Monoxide: .090 lb/mmBtu (400 ppm, 1-hr rolling average, dry volume, corrected to 12% CO_2).
(88 ppm, 4-day rolling average, dry volume, corrected to 12% CO_2).

We would like a ceiling and a floor. This is consistent with first paragraph.

Lead: .00150 lb/mmBtu

Fluorides: .0040 lb/mmBtu

Beryllium: 9.30×10^{-7} lb/mmBtu

Mercury: 7.50×10^{-4} lb/mmBtu

Sulfuric acid mist: 4.70×10^{-3} lb/mmBtu

Uncontroled

* ~~Total~~ SO_2 emissions will be measured at the inlet to the acid gas control device.

DRAFT

Visible Emissions: Opacity of stack emissions shall not be greater than 15% opacity. Excess opacity resulting from startup or shutdown shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess opacity shall be minimized but in no case exceed two hours in any 24-hour period unless specifically authorized by EPA for longer duration.

Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during start-up or shutdown shall be prohibited.

The units are subject to 40 CFR Part 60, Subpart E and Subpart Do, New Source Performance Standards (NSPS), except that where requirements in this permit are more restrictive, the requirements in this permit shall apply.

There shall be no greater than 10% opacity for emissions from the refuse bunker and the ash handling and loadout. The potential for dust generation by ash handling activities will be mitigated by quenching the ash prior to loading in ash transport trucks. Additionally, all portions of the proposed facility, including the ash handling facility, which have the potential for fugitive emissions will be enclosed. Also, those areas which have to be open for operational purposes, (e.g., tipping floor of the refuse bunker while trucks are entering and leaving) will be under negative air pressure.

b. Only distillate fuel oil or natural gas shall be used in startup burners. The annual capacity factor for use of natural gas and oil, as determined by 40 CFR 60.43b(d), shall be less than 10%. If the annual capacity factor of natural gas is greater than 10%, then the facility shall be subject to 560.44 b.

c. None of the three individual municipal solid waste incinerators shall be charged in excess of 323.6 mmbtu/hr and 863 tons per day MSW (115% rated capacity).

d. Compliance Tests

(1) a. Annual compliance tests for particulate matter, lead, SO_2, nitrogen oxides, CO, fluorides, mercury, and beryllium shall be conducted in accordance with 40 CFR 60.8 (a), (b), (d), (e), and (f).

b. Compliance with the opacity standard for the incinerator stack emissions in condition 1.a. of this part shall be determined in accordance with 40 CFR 60.11 (b) and (e).

DRAFT

2. Compliance with emission limitations specified in lb/mmBtu in conditions 1.a. and 1.c. of this part shall be determined by calculating an "F" factor in dscf/mmbtu corrected to 12% CO_2 using the boilers' efficiency (as determined by the calorimeter method contained in Attachment A during acceptance testing) and the measured steam production and quality. Data obtained from test methods required in condition 1.d. of this part for compliance testing shall be used for the calculation of the "F" factor required by this condition.

See P.9, Table V-1 and P19, Section VI. D.

3. The height of each boiler exhaust stack shall not be less than 59.4 meters above ground level at the base of the stack.

4. Each incinerator boiler shall have a metal name plate affixed in a conspicuous place on the shell showing manufacturer, model number, type waste, rated capacity, thermal efficiency, and certification number.

5. The permittee must submit to EPA and DER, within fifteen (15) days after it becomes available to the County, copies of technical data pertaining to the incinerator boiler design, acid gas control equipment design, particulate control equipment design, and the fuel mix that will be used to evaluate compliance of the facility with the preceeding emission limitations.

6. Fuel

The Resource Recovery Facility shall utilize refuse such as garbage and trash (as defined in Chapter 17-7, FAC) but not grease, scum, grit screenings or sewage sludge.

7. Air Pollution Control Equipment

The permittee shall install, continuously operate, and maintain the following air pollution controls to minimize emissions. Controls listed shall be fully operational upon startup of the proposed equipment.

a. Each boiler shall be equipped with a particulate emission control device for the control of particulates.

b. Each boiler shall be equipped with an acid gas control device designed to remove at least 90% of the acid gases.

8. Continuous Emission Monitoring

a. Prior to the date of startup and thereafter, the [redacted] County shall install, maintain, and operate the following continuous monitoring systems for each boiler exhaust stack:

DRAFT

(1) Continuous emission monitoring (CEM) systems to measure stack gas opacity and SO_2, NO_x, CO, CO_2, and O_2 concentrations for each unit. The systems shall meet the EPA monitoring performance specifications of 40 CFR 60.13 and 40 CFR 60, Appendix B, [redacted] during initial compliance testing and annually thereafter. Additionally, CEM's shall meet the quality control requirements of 40 CFR 60, Appendix F (Attachment B).

(2) CEM data recorded during periods of startup, shutdown and malfunction shall be reported but excluded from compliance averaging periods for CO, SO_2 and Opacity but not for NOx.

b. An excess emissions report shall be submitted to EPA for every calendar quarter. The report shall include the following:

(1) The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factors used, and the date and time of commencement and completion of each period of excess emissions (60.7(c)(1)).

(2) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the furnace/boiler system. The nature and cause of any malfunction (if known) and the corrective action taken or preventive measures adopted shall also be reported (60.7(c)(2)).

(3) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks, and the nature of the system repairs or adjustments (60.7(c)(3)).

(4) When no excess emissions have occurred or the continuous monitoring system has not been inoperative, repaired, or adjusted, such information shall be stated in the report (60.7(c)(4)).

(5) [redacted] County shall maintain a file of all measurements, including continuous monitoring systems performance evaluations; all continuous monitoring systems or monitoring device calibrartion checks; adjustments and maintenance performed on these systems or devices; and all other information required by this permit recorded in a permanent form suitable for inspection (60.7(d)).

We would like to have the Permit recognize higher than normal emissions may occure during startup, shutdown and malfunctions. This is consistent with 40 CFR 60 Subpart D. State Permit requires us to report any malfunction by telephone within 24 hours and confirm in writting within 72 hours. Condition II, page 1.

c. Excess emissions indicated by the CEM systems shall be considered violations of the applicable emissions limits (for the purposes of this permit provided the data represents accurate emission levels and the CEM's do not exceed the calibration drift (as specified in the respective performance specification tests) on the day when initial and subsequent compliance is determined. The burden of proof to demonstrate that the data does not reflect accurate emission readings shall be the responsibility of the permittee.

opacity limit or operating

(in ppm)

DRAFT

9. Reporting

a. A copy of the results of the Compliance tests shall be submitted within forty-five days of testing to the DER Bureau of Air Quality Management, the DER Southeast Florida District Office, Broward County, and EPA Region IV.

b. Continous Emission Monitoring data shall be reported to the DER Southeast District Office and EPA Region IV on a quarterly basis in accordance with Section 17-2.710, FAC, and 40 CFR 60.7.

c. Addresses for submitting reports are:

EPA Region IV

Chief, Air Compliance Branch
U.S. Environmental Protection Agency
345 Courtland Street, N.E.
Atlanta, Georgia 30365

Florida Department of Environmental Regulation (DER)

Chief, Compliance and Ambient Monitoring
Bureau of Air Quality Management
Florida Department of Environmental
Regulation (DER)
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301

Southeast District Office of DER

District Manager
Department of Environmental Regulation
3301 Gun Club Road
P.O. Box 3858
West Palm Beach, Florida 33402

Broward County

Broward County Environmental Quality
Control Board
500 Southwest 14th Court
Ft. Lauderdale, Florida 33315

DWG NO. SK-MJM 02 11/21

19'-11" FURNACE DEPTH

HVT. TRAVERSE LOCATION THROUGH BURNER SPUD OPENINGS @ EL. 52'-5"

SW. HDR. EL. 54'-0"

℄ 12" DIA. BRNRS. (BOTH SIDES) EL. 52'-5"

PLAT. EL. 50'-0"

FW. HDR. EL. 47'-7 1/8"

SW. HDR. EL. 34'-6"

SECT. SIDE VIEW

RW. HDR. EL. 28'-9"

LHSW

27'-6" FURN. WIDTH

RHSW

HVT. TRAVERSE LOCATION

4'-7 1/4"

4'-7 1/4"

℄ 12" BURNERS EL. 52'-5"

℄ 12" BURNERS EL. 52'-5"

PLAT. EL. 50'-0"

HVT. TRAVERSE LOCATION.

FRONT ELEVATION