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June 24, 1999

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BUREAU OF
AIR REGULATION

Mr. A. A. Linero, P.E., Administrator
New Source Review Section
Bureau of Air Regulation
Florida department of Environmental Protection
111 South Magnolia Drive, Suite 4
Tallahassee, Florida 32301

Attention: Teresa Heron

RE: South and North Broward County Resource Recovery Facilities - Subpart Cb
Wheelabrator South Broward, Inc. and Wheelabrator North Broward, Inc.

Dear Teresa:

As we discussed, please find the attached edits to the draft changes to the specific conditions for the South and North Broward Resource Recovery Facilities. The edits include ~~strikeout~~ for proposed deletion and underline for additions. A discussion of the proposed changes is presented below. We are providing these draft changes to try and provide consistency in the permits between the two facilities in incorporating the Subpart Cb requirements as well eliminate ambiguities. This should make the permits more readable and practically enforceable as well as assist in development of the Title V operating permit.

Specific Condition 1.a.: The heat inputs authorized in the existing PSD permits are 323.6 and 302.5 mmBtu/hr for the south and north facilities, respectively. Incorporation of the Subpart Cb requirements and clarifying the definition of acceptable fuels will not change the nominal or maximum capacity of the boiler in terms of heat input or fuel throughput. Additionally there has never been a limit related to any nominal capacity rating and consequently establishing such new limitations is not appropriate. This can be added as a permitting note, which we have suggested.

The emission table has been clarified to indicate which are "emission standards" and which are "equivalent emissions". Footnotes were added to define each. The appropriate Subpart Cb emission standards are the appropriate limitations for determining compliance. Specifying other emission unit designations without clarification will only create confusion in determining compliance. It is appropriate to list "equivalent emissions" for the purpose of determining potential to emit for the facility.

Some of the numbers listed as potential emissions were adjusted based on a calculation check. These were minor adjustments.

The emission limitations for fluoride are proposed to be deleted. The initial compliance tests and the annual tests have continued to demonstrate compliance with these limits. The addition of the

SNCR will not affect emissions of fluoride nor will the clarification on fuel definition since the scrubber/fabric filter will effectively control fluoride emissions.

Specific Condition1.a.(2) and 1.a.(4) : Language has been added to Condition 1.a.(2) to make it consistent with the Subpart Cb requirements. The first sentence in Condition 1.a.(2) can be deleted since it is redundant and not as specific as the rest of the language in Condition 1.a.(2). Compliance with the Condition 1.a.(4) work practices should reference Condition 1.a.(2).

Specific Condition c.(1): The references to limitations on nominal rates should be eliminated. See comment for Specific Condition 1. A.

Specific Condition c.(2): This condition can be deleted since the new conditions on load level and compliance with load requirements are more restrictive. In addition, the requirements cited as 40 CFR 62.53(a) are for Subpart E which only require daily charging rates and hours of operation which are less stringent than the 40 CFR Subpart Cb load level monitoring requirements.

Specific Condition d.(1): We have proposed deleting these old compliance test conditions since these are being replaced by the requirements of 40 CFR Subpart Cb as identified in Specific Condition d.(2).

Specific Condition d.(2): The facility will be required to demonstrate compliance with all of 40 CFR Subpart Cb emission requirements after completion of the retrofit in accordance with the Subpart Cb implementation schedule and 40 CFR 60.38b. Consequently, we have proposed adding the specific requirement to conduct the initial performance test 60 days after the boiler reaches maximum load or 180 days after startup of the SNCR system.

As indicated above, the testing for fluoride is proposed to be deleted.

The testing requirements for mercury were clarified to be consistent with Rule 62-296.416. Upstream and downstream mercury testing is only required if the percent reduction limit will be used to determine compliance with the alternative 85 % mercury removal limit [see added footnote (4)].

Specific Condition d.(3): The requirement for continuous compliance with operational parameters including: oxygen, steam pressure and temperature, carbon injection, combustion zone temperature, slake lime utilization and power generation is not appropriate and should be deleted. There are no proposed limits for these operational parameters, nor are they necessary to determine compliance with the Subpart Cb requirements.

Specific Conditions 2, 3 and 6: The deletion of these conditions is recommended since these are being replaced by either more stringent and appropriate requirements or are no longer applicable.

Specific Condition 7.f.(6): It is proposed that the exclusion of polyethylene and polyurethane vinyl floor coverings be deleted. We know of no regulatory basis for excluding this material.

Specific Condition 7.h.(1): We propose adding "non-combustible" before construction and demolition debris, since such debris could include wood (wood forms, building lumber, posts, etc.) that are combustible.

Specific Condition 9.a.(1): The requirement for measuring CO_2 can be deleted since the O_2 is used as the diluent gas for SO_2, CO and NO_x monitoring.

Specific Condition 10 (South Facility) and 11 (North Facility): The requirement to submit copies of materials to EPA Region IV has been deleted since the Department now has this authority.

Specific Condition 13: This condition is not applicable since there will be no physical or operation change that is related to the proposed clarification of acceptable fuels definition and the addition of the SNCR NOx control system that would increase emissions and is therefore not a "modification" pursuant to Rule 62-210.200(188). As noted in the correspondence dated April 9, 1999, there will be a decrease in the allowable emissions of nearly all pollutants for which there is a current emission limit. The only apparent increase is for potential CO emissions (actual emission will not increase) and is a result of using the more appropriate Subpart Cb limit, since there will be no change in operation. The worst case increase in "potential" CO emissions is still below the PSD threshold.

Specific Condition 15: This condition is redundant to Rule 62-297.310(5) which is an applicable requirement for the facility. Moreover, the wording of the proposed condition is not consistent with either that rule or Rule 62-4.070(3). Clearly, the Subpart Cb testing and monitoring requirements provide direct confirmation of proper operation of each emission unit. Any new conditions to be included in the operating permit would be extraneous and not necessary to confirm operation. EPA has stated that the monitoring requirements incorporated in Subpart Cb meet the periodic monitoring and CAM requirements for Title V permits, if this what this condition was intended to address.

Your consideration of these comments is appreciated. Please call if you have any questions. Representatives from Wheelabrator and I can meet with you concerning our proposed changes if you desire.

Sincerely,

GOLDER ASSOCIATES INC.

Kennard F, Kosky, P.E.
Principal

KFK/tla
Enclosures

cc: Rick Mulhorn, Wheelabrator

cc: File
EPA
SED
Broward Co.
Buck Oven, PPS

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PSD PERMIT MODIFICATION
PSD-FL-112 (B)

SPECIFIC CONDITIONS

PSD-FL-112 is hereby modified as follows:

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: (1) 0.140 lb/MMBtu heat input and 60 ppm (3-hr rolling average, dry volume, corrected to 12% CO_2); or~~

~~(2) 65% reduction of uncontrolled 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).~~

~~The 124 ppm limit above shall be modified to reflect a new emission limit (in ppm) from the control device at 65% control efficiency. Within 18 months of start-up of operation, the County shall submit compliance tests that will be used to determine the new SO_2 emission limit (in ppm). The limit will be determined by observed average emission rate (u) from the submitted compliance tests and will be statistically analyzed using the one tailed student T test (t.05 + (x-u) n 0.5/s at the 95% confidence level to derive a mean emission rate (x), where s is the standard deviation of observed values n. The final operating SO_2 emission limit (in ppm) shall be this mean emission rate (x). This value shall be restricted to no more than 124 ppm or less than 60 ppm (3-hr rolling average, dry volume, corrected to 12% CO_2).~~

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

~~Carbon Monoxide: .090 lb/MMBtu heat input; 400 ppm (1-hr rolling average, dry volume, corrected to 12% CO_2); and 88 ppm (4-day rolling average, dry volume, corrected to 12% CO_2).~~

~~Lead: .00056 lb/MMBtu~~

~~Fluorides: .0040 lb/MMBtu~~

~~Beryllium: 9.30×10^{-7} lb/MMBtu~~

~~Mercury: 7.50×10^{-4} lb/MMBtu~~

1. EMISSIONS LIMITATIONS

a. The following emissions standards apply to the following emissions units after improvements to comply with 40 CFR Subpart Cb are completed and the initial performance tests are completed .

EMISSIONS UNIT NO.	EMISSIONS UNITS DESCRIPTION
001	~~280~~ 302.5 MMBtu/hr (~~nominal~~ maximum) Municipal Waste Combustor & Burners - Unit No.1

002	~~280~~ 302.5 MMBtu/hr (~~nominal~~ maximum) Municipal Waste Combustor & Burners - Unit No.2
003	~~280~~ 302.5 MMBtu/hr (~~nominal~~ maximum) Municipal Waste Combustor & Auxiliary - Unit No.3

(Permitting Note: Each of the three municipal waste combustor (MWCs) ~~shall have~~ has a *nominal* design rate capacity of 747 tons MSW per day (a maximum of 807 tons per day), 280 MMBtu per hour with MSW having a heating value of 4,500 Btu per pound) . ~~The "operating window" of 108 percent (%) over the nominal design rate of 280 MMBtu heat input corresponds to 302.5 MMBtu/hr heat input and a maximum of 186,000 lb steam/ hour (5,600 BTU/lb heating value.~~ Short-term capacity is limited by limiting steam production (maximum n of 186,000 lb/hr), which effectively limits heat input.

POLLUTANT	EMISSIONS STANDARDS[a]	EQUIVALENT EMISSIONS[b] LB/MMBtu	LB/HR	TON/YR
PM [(1)] Particulate Matter	27 mg/dscm or 0.012 gr/dscf corrected to 7% O_2	0.024	7.35	32.2
VE Visible Emissions	10 % (6 min. block avg.)			
Cd Cadmium	0.040 mg/dscm corrected to 7% O_2	3.6E-05	0.011	0.048
Be [(2)] Beryllium	0.001 mg/dscm corrected to 7 % O_2	9.3E-07	0.0003	0.0012
Pb Lead	0.44 mg/dscm corrected to 7% O_2	4.4E-04	0.133	0.58
Hg Mercury	70 ug/dscm or 85% reduction by weight or volume corrected to 7% O_2 (whichever is less stringent)	6.3E-05	0..019	0.08
SO_2 Sulfur Dioxide	29 ppmdv or 75% reduction by weight or volume corrected to 7% O_2 (whichever is less stringent)	0.116 ~~or 75% reduction @ 7% O_2~~	32.8 ~~or 75% reduction @ 7 % O_2~~	143.5
HCl Hydrochloric Acid	29 ppmdv or 95% reduction corrected to 7% O_2 (whichever is less stringent)	0.042 ~~or 95% reduction @ 7% O_2~~	11.7 ~~or 95% reduction @ 7% O_2~~	51.3
Dioxins/Furans	30 ng/dscm corrected to 7% O_2	2.7 E-08	8.2E-06	3.6E-05
CO Carbon Monoxide	100 ppmdv corrected to 7% O_2	0.105	31.8	139.1
NOx [(2)] Nitrogen Oxides	205 ppmdv corrected to 7% O_2	0.35	106.5	466.4

[a] These maximum allowable emission standards ~~rates~~ are applicable to each MWC combustor unit and shall be used in demonstrating compliance with the compliance procedures specified in specific conditions d.3.. [Rules 62-4.070, and 62-296.416, F.A.C., 40 CFR 60.33b and 40 CFR 60.34b]

[b] Permitting note: These equivalent emissions are listed for the purposes of providing information on the potential to emit for each MWC and not in determining compliance with applicable emission standards.

~~For fluoride, the permittee shall conduct initial performance test to demonstrate that the burning of the requested fuels do not exceed the BACT original permitted emission level. No annual testing is required.~~

~~F Fluorides~~	~~To be demonstrated initially Not to exceed 0.0040 b/MMBtu~~	~~0.0040~~	~~1.21~~	~~5.29~~

Notes:
(1) This limit for PM is more restrictive than the emission limit for PM in 40 CFR 60.43b

(2) Beryllium: PSD original permit limit. Not to exceed applicable NESHAP, 40 CFR 61.32 (a)(Subpart C).

Basis: Equivalent emissions calculations (lb/hr and ton/yr) are based on the maximum heat input rate of 302.5 MMBtu/hr and 186,000 lb steam/hr [108 % rated capacity] per unit and 8760 hours of operation. ~~Nominal rated capacity of each boiler is 747 tons waste per day. Nominal heat input capacity is 280 MMBtu/hr~~. Short-term capacity is limited by limiting steam production (186,000 lb steam/hr) which effectively limits heat input.

Averaging Times
SO_2: 24-hour daily block geometric mean (midnight to midnight)
NO_x: 24-hour daily block arithmetic mean (midnight to midnight)
CO: 4-hour block arithmetic mean beginning at midnight
Opacity: 6 minutes block arithmetic mean

Abbreviations
ug/dscm: Micrograms per dry standard cubic meter
mg/dscm: Milligrams per dry standard cubic meter
ppmdv: Part per million dry volume
ng/dscm: Nanograms per dry standard cubic meter
Dioxins/ furans: Total tetra through octa-chlorinated dibenzo-p dioxins and dibenzofurans
F: Fluorides as hydrogen fluoride

Temperature: 17° C above maximum demonstrated PM control device inlet

Emission standards apply at all times except during periods of startup/shutdown and malfunction as defined in 40 CFR 60.58b(a).

~~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.~~

a.(2) ~~Visible~~ *Fugitive Ash* Emissions *From Ash Conveying Systems*:
No owner or operator of this facility shall cause to be discharged to the atmosphere visible emissions of combustion ash from an ash conveying system (including conveyor transfer points) in excess of 5 % of the observation period (i.e., 9 minutes per 3-hour period) as determined by EPA Reference Method 22. The 5 percent visible ash emission limit does not cover visible ash emissions discharged inside a building or ash conveying systems, but the visible emission limit does cover visible emissions discharged to the atmosphere from buildings of enclosures of ash conveying systems.

[Rule 62-204.800(8), F.A.C., 40 CFR 60.36b; 60.55b and 62-4-070(3) F.A.C.]

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

a. (3) Applicable Requirements:
These units are subject to all applicable requirements of 40 CFR 60 Subpart Cb, Emissions Control Guidelines and Compliance Schedules for Municipal Solid Waste Combustors, Subpart E, NSPS for Incinerators, Subpart Db NSPS for Industrial-Commercial-Institutional Steam Generating Units, 40CFR61 Subpart C, NESHAP for Beryllium and Rule 62-296.416 F.A.C., Waste-to-Energy Facilities, except that where requirements in this permit are more restrictive, the requirements in this permit shall apply.
[PSD-FL-112, 40CFR60 Subparts Cb, E, Db and 40CFR61 Subpart C]

~~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 facilities which have the potential for fugitive emissions shall 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.~~

a.(4) Ash Handling Facilities:

~~There shall be no greater than 5% 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 or conditioning the ash prior to loading in ash transport trucks. ~~The a~~ Ash handling facilities shall be enclosed *(including the proposed future metal recovery area)*. Unprocessed refuse storage areas which must 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. Residue from the grates, and grate siftings shall be discharged into the bottom ash quenching system, and ash from the combustor/boiler and fabric filter hoppers shall be discharged into the flyash conditioning system during normal operations ~~shall be discharged into the ash quenching system~~ to minimize visible dust generation. The ash/residue in the Ash Handling Building shall remain sufficiently moist to minimize ~~prevent~~ dust during storage and handling operations. Compliance with this condition shall be determined in accordance with Condition a.(2). **[Rule 62-204.800(8), F.A.C., 40 CFR 60.36b; 60.55b and 62-4-070(3) F.A.C.]**

b. No change

c. (1) ~~None of the three individual municipal waste incinerators shall be charged in excess of 302.5 mmBtu/hr and 806.6 tons per day MSW (108% rated capacity) nor produce 186,000 lb/hr steam (3-hr rolling average).~~

c.(1) Operating Rates:

The maximum individual MWC throughput shall not exceed 807 tons MSW per day (2420 tons per day entire facility), and 302.5 MMBtu per hour (108% rated capacity) ~~and~~ nor produce in excess fof186,000 pounds steam per hour ~~(108 % of the nominal design rate)~~ based on a 4-hour block arithmetic average. ~~The incinerators/boilers shall not be loaded in excess of their maximum operating capacity of 33.60 tons MSW per hour each, equivalent to 2420 tons MSW per day total, but no more than 2241 tons MSW per day on an annual (52 week rolling average) average basis for the entire facility.~~ ~~(Compliance per new Specific Conditions c.(2) listed below)~~ **[Rule 62-204.800(8), F.A.C., 40 CFR 60.31b; 60.38b; 60.51b, and 60.58b(j)] [PSD-FL-121(B)/PA 85-21 and Rule 62-4.030(3), F.A.C.]**

c. (2) ~~The temperature of the flue gas exiting the final combustion chamber of the incinerator shall not be less than 1800°F.~~

This condition is deleted. The rationale is explained in the Technical Evaluation and Preliminary Determination dated May 20, 1999. A new specific condition, as stated below, will use this c.(2) numeration

~~**New Specific Condition c.(2) Compliance with the Continuous Charging Rate**:~~ ~~The daily solid waste charging rate and hours of operation shall be determined and recorded for each MWC unit. The daily charging rate shall be determined each month on an average daily basis for each MWC unit using the Facility's truck scale weight data , refuse pit inventory, and MWC operating data for the preceding calendar month. Monthly truck scale weight records on~~

~~the weight of solid waste received and processed at the Facility and refuse pit inventory shall be used to determine the amount of solid waste charged during the preceding calendar month on an average daily basis. The MWC load level measurements or other operating data shall be used to determined the number of operating hours per MWC unit for each day during the preceding calendar month. [Rule 62-204.800(8), F.A.C., and 40 CFR 60.53(a)]~~

New Specific Condition c.(3) (2)Load Level :
Unit load means the steam load of the municipal waste combustor (MWC) measured as specified in 40 CFR 60.58b(i)(6). Each MWC unit shall not operate at a load level greater than 110 percent of the unit's "maximum demonstrated unit load." The maximum demonstrated unit load is the highest 4-hour arithmetic averaged MWC unit load achieved during four consecutive hours during the most recent dioxin/furan performance stack test in which compliance with the dioxin/furan emission limit was achieved. Higher loads are allowed for testing purposes as specified at 40 CFR 60.53b(b). **[Rule 62-204.800(8), F.A.C., 40 CFR 60.31b; 60.38b; 60.51b; 60.53b(b); and 60.58b(i)(8)]**

New Specific Condition c.(4) (3) Compliance With Load Level Requirements:
The owner or operator of an affected facility with steam generation capability shall install, calibrate, maintain, and operate a steam flow meter or a feedwater flow meter; measure steam (or feedwater) flow in kilograms per hour (or pounds per hour) on a continuous basis; and record the output of the monitor (in accordance with the ASME method described in 40 CFR 60.58b(i)(6). Steam (or feedwater) flow shall be calculated in 4-hour block arithmetic averages. Higher loads are allowed for testing purposes as specified at 40 CFR 60.53b(b). **[Rule 62-204.800(8), F.A.C., 40 CFR 60.31b; 60.38b; 60.51b; 60.53b(b); and 60.58b(i)(6)]**

d. Compliance Tests

(1) a. ~~No change. *This condition would be updated in the Title V permit for this facility.*~~ This condition is deleted: ~~Annual compliance tests for particulate matter, lead, SO , nitrogen oxides, CO, fluorides, mercury, and beryllium shall be conducted in accordance with 40 CFR 60.8 (a) (b), (d), (e), and (f).~~

b. ~~No change. *This condition would be updated in the Title V permit for this facility.*~~ This condition is deleted: ~~Compliance with the opacity standard for the incinerator stack emissions in condition 1.a. of this part shall be determined in accordance with 60.11(b) and (f).~~

c. This condition is deleted: ~~Compliance with the emission limitations for 65% control of total sulfur dioxide emissions shall be determined by using the test methods in condition 1.d.(2) and sampling for SO_2 emissions before and after the acid gas control device. Continuous emissions data shall also be used to demonstrate compliance with the SO_2 concentration limits in condition 1.a above.~~

(2) The following test methods and procedures for 40 CFR 60 and 61 shall be used for compliance testing:

a. Method 1 for selection of sample site and sample traverses

b. Method 2 for determining stack gas flow rate when converting concentrations to or from mass emission limits.

c. Method 3 for analysis for calculation of percent O_2 and CO_2.

d. Method 4 for determining stack gas moisture content to convert the flow rate from actual standard cubic feet to dry standard cubic feet for use in converting concentrations in dry gases to or from mass emission limits.

~~e. Method 5 for concentrations of particulate matter and associate moisture content. One sample shall continue one test run.~~

~~f. Method 9 for visible determination of the opacity of emissions.~~

~~g. Method 6 for concentration of SO_2. Two samples, taken at approximately 30 minute intervals, shall constitute one test run.~~

~~h. Method 7 for concentration of nitrogen oxides. Four samples, taken at approximately 15 minutes intervals, shall constitute one run.~~

~~i. Method 10 for determination of CO concentrations. One sample constitutes one run.~~

~~j. Method 12 for determination of lead concentration and associated moisture content. One sample constitutes one test run.~~

~~k. Method 13B for determination of mercury emission rate ans associated moisture content. One sample shall constitute one run.~~

~~l. Method 101A for determination of mercury emission rate and associated moisture content. Ons sample shall constitute one test run.~~

~~m. Method 104 for determination of beryllium emission rate and associated moisture content. One sample shall constitute one test run.~~

d.(2) Stack Tests and Stack Test Methods:

Initial compliance tests for each combustion unit shall be conducted within 60 days after achieving maximum boiler operating capacity, but not later than 180 days after startup of the Selective Non-Catalytic Reduction (SNCR) system. Compliance tests shall be performed according to 40 CFR 60.38b. Annual tests shall be conducted within one year after the initial tests, unless otherwise allowed by the Department. A test protocol shall be submitted for approval to the Department's Southeast District office (DEPSED) and the Broward County Department of Natural Resources Protection (BCDNRP)~~)~~ at least 45 days prior to initial testing.
[Rule 62-204.800(8), F.A.C. and Chapter 62-297, F.A.C.]

Method 5[(1)]	Determination of Particulate Matter Emissions (front half catch only) from Stationary Sources (I) and (A).
Method 9	Visual Determination of the Opacity of Emissions from Stationary Sources (I) and (A).
~~Method 13A or 13 B~~	~~Determination of Total Fluoride Emissions from Stationary Sources (I) and (A).~~
Method 23[(2)]	Determination of Dioxin/furan concentration from Stationary Sources (I) and (A).

Method 26[3] or 26A — Determination of HCl emissions (I) and (A).

Method 29[3][4] — Determination of Metals Emissions from Stationary Sources (I) and (A). Mercury emissions testing shall be conducted semiannually.

[1] Pursuant to 40 CFR 60.58b(c)(3) EPA Reference Method 5 shall be used for determining compliance with the particulate matter emission limit. The minimum sample volume shall be 1.7 cubic meters. The probe and filter holder heating systems in the sample train shall be set to provide a gas temperature no greater than 160 ± 14 °C. An oxygen or carbon dioxide measurement shall be obtained simultaneously with each Method 5 run.

[2] Dioxin/Furan emission limit expressed as the total mass of tetra- through octa chlorinated dibenzo-p-dioxins and dibenzofurans. The facility may perform less frequent testing for dioxin/furan emissions, as allowed by 40 CFR 60.38b(b) and with prior notice to the Department, if the emission unit's dioxin/furan emissions do not exceed 15 ug/dscm corrected to 7% O_2 or less.

[3] HCl ~~and mercury~~ stack tests upstream and downstream of the control device (s) shall be conducted to calculate percent control to demonstrate compliance with the alternative removal limit.

[4] Mercury stack tests shall be performed downstream or may be performed upstream or downstream of mercury control devices when determining compliance with the alternative removal requirement.

New Condition d.(3) Continuous Compliance with Emission Limits:
Continuous compliance with the emission limits for opacity, carbon monoxide (CO), nitrogen oxides (NOx), sulfur dioxide (SO_2) listed above and the operational parameters (~~including but not limited to~~: ~~oxygen measurements~~, steam production [lb/hr, ~~pressure, and temperature~~] or feedwater flowrate [lb/hr], ~~device to measure temperature of flue gas at the~~ and fabric filter inlet flue gas temperature, ~~carbon injection system operating parameters, temperature of the combustion zone, slake lime utilization, power generation, etc~~) shall be demonstrated by continuous emission monitoring systems (CEMS) operated in accordance with 40 CFR 60.58b and 60.59b(f). SO_2 monitors shall be located both upstream of the scrubber and downstream of the baghouse, in order to calculate percent removal efficiency. **[Rule 62-204.800(8), F.A.C. and 40 CFR 60.38 (40 CFR 60.58b) and 62-4.070 F.A.C.]**

2. This condition is deleted: ~~Compliance with emission limitations specified in lb/mmBtu in conditions 1.a and 1.c. of this part shall be determined by claculation 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 measured steam production. 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.~~
3. This condition is deleted: ~~Devices shall be installed to continuously monitor and record steam production. These devices shall be adequately maintained and operating during all periods of steam production~~.

4. No change.
5. No change.
6. This condition is deleted: ~~The permittee must submit to EPA and DER, within fifteen (15) days after it becomes available to the County, copies of the 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~~.

SPECIFIC CONDITION 7.

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. The primary fuel for this facility is municipal solid waste (MSW), including the items and materials that fit within the definition of MSW contained in either 40CFR60.51b or Section 403.706 (5), F.A.C., Florida Statutes (1998).

7.a Subject to the limitations contained in this permit, the authorized fuels for the facility also include the other solid wastes that are not MSW which are described below. However, the facility shall not burn:

(1) those materials that are prohibited by state or federal law;
(2) those materials that are prohibited by this permit;
(3) those materials that are not authorized by this permit;
(4) lead acid batteries;
(5) hazardous waste;
(6) nuclear waste;
(8) radioactive waste;
(9) sewage sludge;
(10) explosives ~~.~~ ; and
(11) asbestos containing materials.

7.b The fuel may be received either as a mixture or as a single-item stream (segregated load) of discarded materials. If the facility intends to use an authorized fuel that is segregated non-MSW material, the fuel shall be either:

(1) well mixed with MSW in the refuse pit; or
(2) alternately charged with MSW in the hopper.

7.c. The facility owner/operator shall prepare and maintain records concerning the description and quantities of all segregated loads of non-MSW material which are received and used as fuel at the facility, and subject to a percentage weight limitation, below (7.g and 7.h.). For the purposes of this permit, a segregated load is defined to mean a container or truck that is almost completely or exclusively filled with a single item or homogenous composition of waste material, as determined by visual inspection.

7.d. To ensure that the facility's fuel does not adversely affect the facility's combustion process or emissions, the facility operator shall:

(1) comply with good combustion operating practices in accordance with 40 CFR 60.53b;
(2) install, operate and maintain continuous emissions monitors (CEMS) for oxygen, carbon monoxide, sulfur dioxide, oxides of nitrogen and *particulate control device inlet* temperature in accordance with 40 CFR 60.58b; and
(3) record and maintain the CEMS data in accordance with 40 CFR 60.59b.

These steps shall be used to ensure and verify continuous compliance with the emissions limitations in this permit.

Natural gas may be used as fuel during warm-up, startup, shutdown, and malfunction periods, and at other times when necessary and consistent with good combustion practices.

7.f. Subject to the conditions and limitations contained in this permit, the following other solid waste may be used as fuel at the facility:

(1) Confidential, proprietary or special documents (including but not limited to business records, lottery tickets, event tickets, coupons, *credit cards, magnetic tape* and microfilm);
(2) Contraband which is being destroyed at the request of appropriately authorized local, state or federal governmental agencies, provided that such material is not an explosive, a propellant, a hazardous waste, or otherwise prohibited at the facility. For the purposes of this section, contraband includes but is not limited to drugs, narcotics, fruits, vegetables, plants, counterfeit money, and counterfeit consumer goods;
(3) Wood pallets, clean wood, and land clearing debris and combustible construction and demolition debris.
(4) Packaging materials and containers;
(5) Clothing, natural and synthetic fibers, fabric remnants, and similar debris, including but not limited to aprons and gloves; ~~or~~ and
(6) Rugs, carpets, and floor coverings~~, but not asbestos-containing materials or polyethylene or polyurethane vinyl floor coverings~~.

7.g. Subject to the conditions and limitations contained in this permit waste tires may be used as fuel at the facility. The total quantity of waste tires received as segregated loads and burned at the facility shall not exceed 3%, by weight, of the facility's total fuel. Compliance with this limitation shall be determined by using a rolling 30 day average in accordance with specific condition No. 7.i. below.

7.h. Subject to the conditions and limitations contained in this permit, the following other solid waste materials may be used as fuel at the facility (i.e. the following are authorized fuels that are non-MSW material). The total quantity of the following non-MSW material received as segregated loads and burned at the facility shall not exceed 5%, by weight, of the facility's total fuel. Compliance with this limitation shall be determined by using a rolling 30 day average in accordance with specific condition No. 7.i. below.

(1) Non-Combustible Construction and demolition debris.
(2) Oil spill debris from aquatic, coastal, estuarine or river environments. Such items or materials include but are not limited to rags, wipes, and absorbents.
(3) Items suitable for human, plant or domesticated animal use, consumption or application where the item's shelf-life has expired or the generator wishes to remove

the items from the market. Such items or materials include but are not limited to off-specification or expired consumer products, pharmaceuticals, medications, health and personal care products, cosmetics, foodstuffs, nutritional supplements, returned goods, and controlled substances.

(4) Consumer-packaged products intended for human or domesticated animal use or application but not consumption. Such items or materials include but are not limited to carpet cleaners, household or bathroom cleaners, polishes, waxes and detergents.

(5) Waste materials that:
  (i) are generated in the manufacture of items in categories (c) or (d), above and are functionally or commercially useless (expired, rejected or spent); or
  (ii) are not yet formed or packaged for commercial distribution. Such items or materials must be substantially similar to other items or materials routinely found in MSW.

(f) Waste materials that contain oil from:
  (i) the routine cleanup of industrial or commercial establishments and machinery; or
  (ii) spills of virgin or used petroleum products. Such items or materials include but are not limited to rags, wipes, and absorbents.

(6) Used oil and used oil filters. Used oil containing a PCB concentration equal or greater than 50 ppm shall not be burned, pursuant to the limitations of 40 CFR 761.20(e).

(7) Waste materials generated by manufacturing, industrial or agricultural activities, provided that these items or materials are substantially similar to items or materials that are found routinely in MSW, subject to prior approval of the Department.

7.i. Segregated Solid Waste Record Keeping:

The following records shall be made and kept to demonstrate compliance with the segregated non-MSW percentage limitations of specific condition 7.

Each segregated load of non-MSW materials, that is subject to the percentage weight limitation of specific conditions 7.g. and 7.h., which is received for processing shall be documented as to waste description and weight. The weight of all waste materials received for processing shall be measured using the facility truck scale and recorded.

Each day the total weight of segregated tires received shall be computed, and the daily total shall be added to the sum of the daily totals from the previous 29 days. The resultant 30 day total weight of tires shall be divided by the total weight of all waste materials received in the same 30 day period, and the resultant number shall be multiplied by 100 to express the ratio in percentage terms. The percentage computed shall be compared to the 3% limitation.

Each day the total weight of segregated non-MSW materials received that are subject to the 5% restriction shall be computed, and the daily total shall be added to the sum of the daily totals from the previous 29 days. The resultant 30 day total weight of segregated non-MSW materials shall be divided by the total weight of all waste materials received in the same 30 day period, and the resultant number shall be multiplied by 100 to express the ratio in percentage terms. The percentage computed shall be compared to the 5% limitation.

8. No Change except as noted below:

SPECIFIC CONDITION 8.c.

~~The temperature of flue gases exiting the acid gas control equipment shall not exceed 300°F.~~

8.c. Compliance with the PM Control Device Temperature:
Each MWC unit is required to continuously monitor and record the flue gas temperature at the inlet to the PM control device in accordance with the requirements at 40 CFR 60.58b(i)(7). The PM control device temperature shall be calculated in 4-hour block arithmetic averages. Each MWC unit shall be allowed to operate up to 17°C (30° F) above the unit's maximum demonstrated PM control device temperature. The maximum demonstrated PM control device temperature is the highest 4-hour arithmetic block-averaged measurement of temperature at the inlet to the PM control device recorded for 4 consecutive hours during the most recent dioxin/furan performance test which complied with the limits given above. The PM control device inlet temperature and the steam (or feedwater) flow for each unit during the stack test shall be continuously monitored and recorded in accordance with 40 CFR 60, Subpart Cb. Higher temperatures are allowed for testing purposes, as specified at 40 CFR 60.53b(c). **[Rule 62-204.800(8), F.A.C. and 40 CFR 60.38b, 40 CFR 60.53b(c) and 60.58b(i)(7) and (9)]**

9. Continuous Emission Monitoring

a. No Change.
(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. No change in remainder of condition.

(2) and (3). No change.

b. No change

c. No change.

10. No change.

11. Reporting

a. A copy of the results of the compliance tests shall be submitted within forty-five days of testing to the DEP Bureau of Air Regulation, the DEP Southeast District Office and Broward County ~~and EPA Region IV~~.

NEW SPECIFIC CONDITIONS 12, and 13~~, 14 and 15~~

12. METAL RECOVERY FACILITY
The metal recovery area will be enclosed in a building adjacent to the existing ash loadout area. All bottom ash is currently quenched with water after leaving each boiler. The resulting bottom ash will be about 20 to 30 percent moisture and will not generate fugitive dust.

~~13. ELECTRIC UTILITY STEAM GENERATING UNIT ACTUAL EMISSIONS~~
~~The permittee shall provide the Department within the period not longer than 10 years following the change, information demonstrating that the physical or operational change did not result in a "representative actual annual emissions" increase in accordance with Rule 62-210.200 (12)(d), F.A.C., and Rule 62-212.400, F.A.C.~~
~~[40 CFR 52.21(b)(33), Rule 62-4.070 (3), Rule 62-212.400, and Rule 62-210.200, F.A.C.]~~

13 ~~14.~~ SCHEDULE OF COMPLIANCE

The compliance schedule for each unit is provided below.

Increment 1: 2 months after EPA approval of the Florida State Plan
Increment 2: 8 months after EPA approval of the Florida State Plan
Increment 3: 24 months after EPA approval of the Florida State Plan
Increment 4: 34 months after EPA approval of the Florida State Plan
Increment 5: 36 months after EPA approval of the Florida State Plan or by December 19, 2000

The five increments of progress are:
Increment 1: Submittal of a final control plan for the designated facility to the appropriate air pollution control agency.
Increment 2: Awarding of contracts for emission control system or for process modification, or issuance of orders for the purchase of components parts to accomplish emission control or process modification.
Increment 3: Initiation of on-site construction or installation of emission control equipment or process change.
Increment 4: Completion of on-site construction or installation of emission control equipment or process change.
Increment 5: Final compliance.

~~15. DETERMINATION OF PROCESS VARIABLES~~
~~Any other operating parameters (including but not limited to control equipment operating parameters) established during compliance testing and/or inspection that will confirm the proper operation of each emission unit shall be included in the operating permit [Rule 62-297.310 (5), F.A.C. and 62-4.070(3), F.A.C.]~~

A copy of this permit modification shall be attached to Permit PSD-FL-112 and shall become a part of this permit.

SPECIFIC CONDITIONS

PSD-FL-105 is hereby amended as follows:

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: (1) 0.140 lb/MMBtu heat input and 60 ppm (3-hr rolling average, dry volume, corrected to 12% CO_2); or~~

~~(2) 65% reduction of uncontrolled SO_2 emissions.* In no case shall the SO2 emissions exceed 0.310 lb/MMBtu heat input and 124 ppm (3-hr rolling average, dry volume, corrected to 12% CO_2).~~

~~The 124 ppm limit above shall be modified to reflect a new emission limit (in ppm) from the control device at 65% control efficiency. Within 18 months of start-up of operation, the County shall submit compliance tests that will be used to determine the new SO_2 emission limit (in ppm). The limit will be determined by observed average emission rate (x) from the submitted compliance tests and will be statistically analyzed using the one tailed student T-test ($t.05 = (x-u) n/s$ at the 95% confidence level to derive a mean emission rate (u), where s is the standard deviation of observed values n. The final operating SO_2 emission limit (in ppm) shall be this mean emission rate (u). This value shall be restricted to no more than 124 ppm or less than 60 ppm (3-hr rolling average, dry volume, corrected to 12% CO_2).~~

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

~~Carbon Monoxide: .090 lb/MMBtu heat input; 400 ppm (1-hr rolling average, dry volume, corrected to 12% CO_2); and 88 ppm (4-day rolling average, dry volume, corrected to 12% CO_2).~~

~~Lead: .00056 lb/MMBtu~~

~~Fluorides: .0040 lb/MMBtu~~

~~Beryllium: 9.30×10^{-7} lb/MMBtu~~

~~Mercury: 7.50×10^{-4} lb/MMBtu~~

1. EMISSIONS LIMITATIONS

a. The following emissions standards apply to the following emissions units after improvements to comply with 40 CFR Subpart Cb are completed and the initial performance tests are completed.

EMISSIONS UNIT NO.	EMISSIONS UNITS DESCRIPTION
001	~~281~~ 323.6 MMBtu/hr (~~nominal~~ maximum) Municipal Waste Combustor & Auxiliary Bu No.1
002	~~281~~ 323.6 MMBtu/hr (~~nominal~~ maximum) Municipal Waste Combustor & Auxiliary Bu No.2
003	~~281~~ 323.6 MMBtu/hr (~~nominal~~ maximum) Municipal Waste Combustor & Auxiliary Bu No.3

{Permitting Note: Each of the three municipal waste combustor (MWCs) ~~shall have~~ has a *nominal* design rate capacity of 750 tons MSW per day (a maximum of 863 tons per day ~~)~~ , ~~281~~ 323.6 MMBtu per hour with MSW having a heating value of 4,500 Btu per pound). ~~The "operating window" of 115 percent (%) over the nominal design rate of 281 MMBtu heat input corresponds to 323.6 MMBtu/hr heat input and a maximum of 192,000 lb steam/ hour (5,600 BTU/lb heating value).~~ Short-term capacity is limited by limiting steam production (maximum ~~n~~ of 192,000 lb/hr), which effectively limits heat input.

		EQUIVALENT EMISSIONS[b]		
POLLUTANT	**EMISSIONS STANDARDS[a]**	**LB/MMBtu**	**LB/HR**	**TON/YR**
PM [1] Particulate Matter	27 mg/dscm or 0.012 gr/dscf corrected to 7% O_2	0.0243	7.85	34.4
VE Visible Emissions	10% (6 min. block avg.)			
Cd Cadmium	0.040 mg/dscm corrected to 7% O_2	3.7 ~~3.6~~E-05	0.012	0.051
Be [2] Beryllium	0.001 mg/dscm corrected to 7 % O_2	9.3E-07	0.0003	0.0013
Pb Lead	0.44 mg/dscm corrected to 7% O_2	4.4E-04	0.142	0.62
Hg Mercury	70 ug/dscm or 85% reduction by weight or volume corrected to 7% O_2 (whichever is less stringent)	6.2 ~~6.3~~E-05	0.02	0.09
SO_2 Sulfur Dioxide	29 ppmdv or 75% reduction by weight or volume corrected to 7% O_2 (whichever is less stringent)	0.11 ~~08 or 75% reduction @ 7% O_2~~	35.1 ~~or 75% reduction @ 7 % O_2~~	153.7
HCl Hydrochloric Acid	29 ppmdv or 95% reduction corrected to 7% O_2 (whichever is less stringent)	0.042 ~~or 95% reduction @ 7% O_2~~	12.6 ~~or 95% reduction @ 7% O_2~~	55
Dioxins/Furans	30 ng/dscm corrected to 7% O_2	2.7 E-08	8.7E-06	3.8E-05
CO Carbon Monoxide	100 ppmdv corrected to 7% O_2	0.105	33.9	148.75
NOx [2] Nitrogen Oxides	205 ppmdv corrected to 7% O_2	0.352	114	499

[a] These maximum allowable emission standards ~~rates~~ are applicable to each MWC combustor unit and shall be used in demonstrating compliance with the compliance procedures specified in specific conditions d.3. [Rules 62-4.070, and 62-296.416, F.A.C., 40 CFR 60.33b and 40 CFR 60.34b]

[b] Permitting note: These equivalent emissions are listed for the purposes of providing information on the potential to emit for each MWC and not in determining compliance with applicable emission standards.

~~For fluoride, the permittee shall conduct initial performance test to demonstrate that the burning of the requested fuels do not exceed the BACT original permitted emission level. No annual testing is required.~~

~~F~~ ~~Fluorides~~	~~To be demostrated initially~~ ~~Not to exceed 0.0040 lb/MMBtu~~	~~0.0040~~	~~1.29~~	~~5.66~~

Notes:
(1) This limit for PM is more restrictive than the emission limit for PM in 40 CFR 60.43b
(2) Beryllium: PSD original permit limit. Not to exceed applicable NESHAP, 40 CFR 61.32 (a)(Subpart C).

Basis: Equivalent emissions calculations (lb/hr and ton/yr) are based on the maximum heat input rate of 323.6 ~~326.6~~ MMBtu/hr and 192,000 lb steam/hr [115 % rated capacity] per unit and 8760 hours of operation. ~~Nominal rated capacity of each boiler is 750 tons waste per day. Nominal heat input capacity is 281 MMBtu/hr.~~ Short-term capacity is limited by limiting steam production (192,000 lb steam/hr) which effectively limits heat input.

Averaging Times
SO_2: 24-hour daily block geometric mean (midnight to midnight)
NO_x: 24-hour daily block arithmetic mean (midnight to midnight)
CO: 4-hour block arithmetic mean beginning at midnight
Opacity: 6 minutes block arithmetic mean

Abbreviations
ug/dscm: Micrograms per dry standard cubic meter
mg/dscm: Milligrams per dry standard cubic meter
ppmdv: Part per million dry volume
ng/dscm: Nanograms per dry standard cubic meter
Dioxins/ furans: Total tetra through octa-chlorinated dibenzo-p dioxins and dibenzofurans
F: Fluorides as hydrogen fluoride

Temperature: 17° C above maximum demonstrated PM control device inlet

~~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.~~

Emission standards apply at all times except during periods of startup/shutdown and malfunction as defined in 40 CFR 60.58b(a). Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably e be prevented during start-up or shutdown shall be prohibited.

a.(2) ~~Visible~~ *Fugitive Ash* Emissions *From Ash Conveying Systems*:

No owner or operator of this facility shall cause to be discharged to the atmosphere visible emissions of combustion ash from an ash conveying system (including conveyor transfer points) in excess of 5 % of the observation period (i.e., 9 minutes per 3-hour period) as determined by EPA Reference Method 22. The 5 percent visible ash emission limit does not cover visible ash emissions discharged inside a building or ash conveying systems, but the visible emission limit does cover visible emissions discharged to the atmosphere from buildings of enclosures of ash conveying systems.
[Rule 62-204.800(8), F.A.C., 40 CFR 60.36b; 60.55b and 62-4-070(3) F.A.C.]

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

a. (3) Applicable Requirements:

These units are subject to all applicable requirements of 40 CFR 60 Subpart Cb, Emissions Control Guidelines and Compliance Schedules for Municipal Solid Waste Combustors, Subpart E, NSPS for Incinerators, Subpart Db NSPS for Industrial-Commercial-Institutional Steam Generating Units, 40CFR61 Subpart C, NESHAP for Beryllium and Rule 62-296.416 F.A.C., Waste-to-Energy Facilities, except that where requirements in this permit are more restrictive, the requirements in this permit shall apply.
[PSD-FL-112, 40CFR60 Subparts Cb, E, Db and 40CFR61 Subpart C]

~~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 facilities which have the potential for fugitive emissions shall 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.~~

a.(4) Ash Handling Facilities:
~~There shall be no greater than 5% 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 or conditioning the ash prior to loading in ash transport trucks. ~~The a~~ Ash handling facilities shall be enclosed *(including the proposed future metal recovery area)*. Unprocessed refuse storage areas which must 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. Residue from the grates, and grate siftings shall be discharged into the bottom ash quenching system, and ash from the combustor/boiler and fabric filter hoppers shall be discharged into the fly ash conditioning system during normal operations ~~shall be discharged into the ash quenching system~~ to minimize visible dust generation. The ash/residue in the Ash Handling Building shall remain sufficiently moist to minimize ~~prevent~~ dust during storage and handling operations. Compliance with this condition shall be determined in accordance with Condition a.(2).
[Rule 62-204.800(8), F.A.C., 40 CFR 60.36b; 60.55b and 62-4-070(3) F.A.C.]

b. No change

c. ~~None of the three individual municipal waste incinerators shall be charged in excess of 323.6 mmBtu/hr and 863 tons per day MSW (115% rated capacity) nor produce 192,000 lb/hr steam (3-hr rolling average).~~

c.(1) Operating Rates:
The maximum individual MWC throughput shall not exceed 863 tons MSW per day (2589 tons per day entire facility) and 323.6 MMBtu per hour (115% rated capacity) nor produce in excess of ~~and~~ 192,000 pounds steam per hour ~~(115 % of the nominal design rate)~~ based on a 4-hour block arithmetic average. ~~The incinerators/boilers shall not be loaded in excess of their maximum operating capacity of 36 tons MSW per hour each, equivalent to 2589 tons MSW per day total, but no more than 2250 tons MSW per day on an annual (52 week rolling average) average basis for the entire facility. (Compliance per new Specific Conditions c.(2) listed below)~~
[Rule 62-204.800(8), F.A.C., 40 CFR 60.31b; 60.38b; 60.51b, and 60.58b(j)]
[PSD-FL-105/PA 85-21 and Rule 62-4.030(3), F.A.C.]

~~**New Specific Condition c.(2) Compliance with the Continuous Charging Rate:**~~
~~The daily solid waste charging rate and hours of operation shall be determined and recorded for each MWC unit. The daily charging rate shall be determined each month on an average daily~~

~~basis for each MWC unit using the Facility's truck scale weight data, refuse pit inventory, and MWC operating data for the preceding calendar month. Monthly truck scale weight records on the weight of solid waste received and processed at the Facility and refuse pit inventory shall be used to determine the amount of solid waste charged during the preceding calendar month on an average daily basis. The MWC load level measurements or other operating data shall be used to determined the number of operating hours per MWC unit for each day during the preceding calendar month. [Rule 62-204.800(8), F.A.C., and 40 CFR 60.53(a)]~~

New Specific Condition c.~~(3)~~ (2) Load Level :
Unit load means the steam load of the municipal waste combustor (MWC) measured as specified in 40 CFR 60.58b(i)(6). Each MWC unit shall not operate at a load level greater than 110 percent of the unit's "maximum demonstrated unit load." The maximum demonstrated unit load is the highest 4-hour arithmetic averaged MWC unit load achieved during four consecutive hours during the most recent dioxin/furan performance stack test in which compliance with the dioxin/furan emission limit was achieved. Higher loads are allowed for testing purposes as specified at 40 CFR 60.53b(b). **[Rule 62-204.800(8), F.A.C., 40 CFR 60.31b; 60.38b; 60.51b; 60.53b(b); and 60.58b(i)(8)]**

New Specific Condition c.~~(4)~~ (3) Compliance With Load Level Requirements:
The owner or operator of an affected facility with steam generation capability shall install, calibrate, maintain, and operate a steam flow meter or a feedwater flow meter; measure steam (or feedwater) flow in kilograms per hour (or pounds per hour) on a continuous basis; and record the output of the monitor (in accordance with the ASME method described in 40 CFR 60.58b(i)(6). Steam (or feedwater) flow shall be calculated in 4-hour block arithmetic averages. Higher loads are allowed for testing purposes as specified at 40 CFR 60.53b(b). **[Rule 62-204.800(8), F.A.C., 40 CFR 60.31b; 60.38b; 60.51b; 60.53b(b); and 60.58b(i)(6)]**

d. Compliance Tests

(1) a. ~~No change. *This condition would be updated in the Title V permit for this facility*~~. This condition is deleted: ~~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. ~~No change. *This condition would be updated in the Title V permit for this facility*~~. This condition is deleted: ~~Compliance with the opacity standard for the incinerator stack emissions in condition 1.a. of this part shall be determined in accordance with 60.11(b) and (f).~~

c. This condition is deleted: ~~Compliance with the emission limitations for 65% control of total sulfur dioxide emissions shall be determined by using the test methods in condition 1.d.(2) and sampling for SO_2 emissions before and after the acid gas control device. Continuous emissions data shall also be used to demonstrate compliance with the SO_2 concentration limits in condition 1.a above.~~

(2) The following test methods and procedures for 40 CFR 60 and 61 shall be used for compliance testing:

a. Method 1 for selection of sample site and sample traverses

b. Method 2 for determining stack gas flow rate when converting concentrations to or from mass emission limits.

c. Method 3 for analysis for calculation of percent O_2 and CO_2.

d. Method 4 for determining stack gas moisture content to convert the flow rate from actual standard cubic feet to dry standard cubic feet for use in converting concentrations in dry gases to or from mass emission limits.

~~e. Method 5 for concentrations of particulate matter and associate moisture content. One sample shall continue one test run.~~

~~f. Method 9 for visible determination of the opacity of emissions.~~

~~g. Method 6 for concentration of SO_2. Two samples, taken at approximately 30 minute intervals, shall constitute one test run.~~

~~h. Method 7 for concentration of nitrogen oxides. Four samples, taken at approximately 15 minutes intervals, shall constitute one run.~~

~~i. Method 10 for determination of CO concentrations. One sample constitutes one run.~~

~~j. Method 12 for determination of lead concentration and associated moisture content. One sample constitutes one test run.~~

~~k. Method 13B for determination of mercury emission rate ans associated moisture content. One sample shall constitute one run.~~

~~l. Method 101A for determination of mercury emission rate and associated moisture content. Ons sample shall constitute one test run.~~

~~m. Method 104 for determination of beryllium emission rate and associated moisture content. One sample shall constitute one test run.~~

d.(2) Stack Tests and Stack Test Methods:
Initial compliance tests for each combustion unit shall be conducted within 60 days after achieving maximum boiler operating capacity, but not later than 180 days after startup of the Selective Non-Catalytic Reduction (SNCR) system. Compliance tests shall be performed according to 40 CFR 60.38b. Annual tests shall be conducted within one year after the initial tests, unless otherwise allowed by the Department. A test protocol shall be submitted for approval to the Department's Southeast District office (DEPSED) and the Broward County Department of Natural Resources Protection (BCDNRP)) at least 45 days prior to initial testing.
[Rule 62-204.800(8), F.A.C. and Chapter 62-297, F.A.C.]

Method 5[1]	Determination of Particulate Matter Emissions (front half catch only) from Stationary Sources (I) and (A).
Method 9	Visual Determination of the Opacity of Emissions from Stationary Sources (I) and (A).
~~Method 13A or 13 B~~	~~Determination of Total Fluoride Emissions from Stationary Sources (I) and (A).~~
Method 23[2]	Determination of Dioxin/furan concentration from Stationary Sources (I) and (A).
Method 26[3] or 26A	Determination of HCl emissions (I) and (A).
Method 29[4]	Determination of Metals Emissions from Stationary Sources (I) and (A). Mercury emissions testing shall be conducted semiannually.

(1) Pursuant to 40 CFR 60.58b(c)(3) EPA Reference Method 5 shall be used for determining compliance with the particulate matter emission limit. The minimum sample volume shall be 1.7 cubic meters. The probe and filter holder heating systems in the sample train shall be set to provide a gas temperature no greater than 160 ± 14 °C. An oxygen or carbon dioxide measurement shall be obtained simultaneously with each Method 5 run.

(2) Dioxin/Furan emission limit expressed as the total mass of tetra- through octa chlorinated dibenzo-p-dioxins and dibenzofurans. The facility may perform less frequent testing for dioxin/furan emissions, as allowed by 40 CFR 60.38b(b) and with prior notice to the Department, if the emission unit's dioxin/furan emissions do not exceed 15 ug/dscm corrected to 7% O_2 or less.

(3) HCl stack tests upstream and downstream of the control device (s) shall be conducted to calculate percent control to demonstrate compliance with the alternate removal limit .

(4) Mercury stack tests shall be performed downstream of control devices or upstream and downstream of the control devices when determining compliance with the alternative removal requirement.

New Condition d.(3) Continuous Compliance with Emission Limits:
Continuous compliance with the emission limits for opacity, carbon monoxide (CO), nitrogen oxides (NOx), sulfur dioxide (SO_2) listed above and the operational parameters (including ~~but not limited to~~: ~~oxygen measurements~~, steam production [lb/hr, ~~pressure, and temperature~~] or feedwater flowrate [lb/hr], ~~device to measure temperature of flue gas at the~~ and fabric filter inlet flue gas temperature, ~~carbon injection system operating parameters, temperature of the combustion zone, slake lime utilization, power generation, etc~~.) shall be demonstrated by continuous emission monitoring systems (CEMS) operated in accordance with 40 CFR 60.58b and 60.59b(f). SO_2 monitors shall be located both upstream of the scrubber and downstream of the baghouse, in order to calculate percent removal efficiency. **[Rule 62-204.800(8), F.A.C. and 40 CFR 60.38 (40 CFR 60.58b) and 62-4.070 F.A.C.]**

2. This condition is deleted: ~~Compliance with emission limitations specified in lb/mmBtu in conditions 1.a and 1.c. of this part shall be determined by claculation 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 measured steam production. 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.~~
3. This condition is deleted: ~~Devices shall be installed to continuously monitor and record steam production. These devices shall be adequately maintained and operating during all periods of steam production~~.
4. No change.
5. No change.
6. This condition is deleted: ~~The permittee must submit to EPA and DER, within fifteen (15) days after it becomes available to the County, copies of the 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~~.

SPECIFIC CONDITION 7.

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. The primary fuel for this facility is municipal solid waste (MSW), including the items and materials that fit within the definition of MSW contained in either 40CFR60.51b or Section 403.706 (5), F.A.C., Florida Statutes (1998).

7.a Subject to the limitations contained in this permit, the authorized fuels for the facility also include the other solid wastes that are not MSW which are described below. However, the facility shall not burn:

(1) those materials that are prohibited by state or federal law;
(2) those materials that are prohibited by this permit;
(3) those materials that are not authorized by this permit;
(4) lead acid batteries;
(5) hazardous waste;
(6) nuclear waste;
(8) radioactive waste;
(9) sewage sludge;
(10) explosives~~.~~ ; and
(11) asbestos containing materials.

7.b The fuel may be received either as a mixture or as a single-item stream (segregated load) of discarded materials. If the facility intends to use an authorized fuel that is segregated non-MSW material, the fuel shall be either:

(1) well mixed with MSW in the refuse pit; or
(2) alternately charged with MSW in the hopper.

7.c. The facility owner/operator shall prepare and maintain records concerning the description and quantities of all segregated loads of non-MSW material which are received and used as fuel at the facility, and subject to a percentage weight limitation, below (7.g and 7.h.). For the purposes of this permit, a segregated load is defined to mean a container or truck that is almost completely or exclusively filled with a single item or homogenous composition of waste material, as determined by visual inspection.

7.d. To ensure that the facility's fuel does not adversely affect the facility's combustion process or emissions, the facility operator shall:

(1) comply with good combustion operating practices in accordance with 40 CFR 60.53b;
(2) install, operate and maintain continuous emissions monitors (CEMS) for oxygen, carbon monoxide, sulfur dioxide, oxides of nitrogen and *particulate control device inlet* temperature in accordance with 40 CFR 60.58b; and
(3) record and maintain the CEMS data in accordance with 40 CFR 60.59b.

These steps shall be used to ensure and verify continuous compliance with the emissions limitations in this permit.

Natural gas may be used as fuel during warm-up, startup, shutdown, and malfunction periods, and at other times when necessary and consistent with good combustion practices.

7.f. Subject to the conditions and limitations contained in this permit, the following other solid waste may be used as fuel at the facility:

(1) Confidential, proprietary or special documents (including but not limited to business records, lottery tickets, event tickets, coupons, *credit cards, magnetic tape* and microfilm);
(2) Contraband which is being destroyed at the request of appropriately authorized local, state or federal governmental agencies, provided that such material is not an explosive, a propellant, a hazardous waste, or otherwise prohibited at the facility. For the purposes of this section, contraband includes but is not limited to drugs, narcotics, fruits, vegetables, plants, counterfeit money, and counterfeit consumer goods;
(3) Wood pallets, clean wood, and land clearing debris and combustible construction and demolition debris.
(4) Packaging materials and containers;
(5) Clothing, natural and synthetic fibers, fabric remnants, and similar debris, including but not limited to aprons and gloves; ~~or~~ and
(6) Rugs, carpets, and floor coverings ~~, but not asbestos-containing materials or polyethylene or polyurethane vinyl floor coverings~~.

7.g. Subject to the conditions and limitations contained in this permit waste tires may be used as fuel at the facility. The total quantity of waste tires received as segregated loads and burned at the facility shall not exceed 3%, by weight, of the facility's total fuel. Compliance with this limitation shall be determined by using a rolling 30 day average in accordance with specific condition No. 7.i. below.

7.h. Subject to the conditions and limitations contained in this permit, the following other solid waste materials may be used as fuel at the facility (i.e. the following are authorized fuels that are non-MSW material). The total quantity of the following non-MSW material received as segregated loads and burned at the facility shall not exceed 5%, by weight, of the facility's total fuel. Compliance with this limitation shall be determined by using a rolling 30 day average in accordance with specific condition No. 7.i. below.

(1) Non-Combustible Construction and demolition debris.
(2) Oil spill debris from aquatic, coastal, estuarine or river environments. Such items or materials include but are not limited to rags, wipes, and absorbents.
(3) Items suitable for human, plant or domesticated animal use, consumption or application where the item's shelf-life has expired or the generator wishes to remove the items from the market. Such items or materials include but are not limited to off-specification or expired consumer products, pharmaceuticals, medications, health and personal care products, cosmetics, foodstuffs, nutritional supplements, returned goods, and controlled substances.
(4) Consumer-packaged products intended for human or domesticated animal use or application but not consumption. Such items or materials include but are not limited to carpet cleaners, household or bathroom cleaners, polishes, waxes and detergents.
(5) Waste materials that:

(i) are generated in the manufacture of items in categories (c) or (d), above and are functionally or commercially useless (expired, rejected or spent); or

(ii) are not yet formed or packaged for commercial distribution. Such items or materials must be substantially similar to other items or materials routinely found in MSW.

(f) Waste materials that contain oil from:

(i) the routine cleanup of industrial or commercial establishments and machinery; or

(ii) spills of virgin or used petroleum products. Such items or materials include but are not limited to rags, wipes, and absorbents.

(6) Used oil and used oil filters. Used oil containing a PCB concentration equal or greater than 50 ppm shall not be burned, pursuant to the limitations of 40 CFR 761.20(e).

(7) Waste materials generated by manufacturing, industrial or agricultural activities, provided that these items or materials are substantially similar to items or materials that are found routinely in MSW, subject to prior approval of the Department.

7.i. Segregated Solid Waste Record Keeping:

The following records shall be made and kept to demonstrate compliance with the segregated non-MSW percentage limitations of specific condition 7.

Each segregated load of non-MSW materials, that is subject to the percentage weight limitation of specific conditions 7.g. and 7.h., which is received for processing shall be documented as to waste description and weight. The weight of all waste materials received for processing shall be measured using the facility truck scale and recorded.

Each day the total weight of segregated tires received shall be computed, and the daily total shall be added to the sum of the daily totals from the previous 29 days. The resultant 30 day total weight of tires shall be divided by the total weight of all waste materials received in the same 30 day period, and the resultant number shall be multiplied by 100 to express the ratio in percentage terms. The percentage computed shall be compared to the 3% limitation.

Each day the total weight of segregated non-MSW materials received that are subject to the 5% restriction shall be computed, and the daily total shall be added to the sum of the daily totals from the previous 29 days. The resultant 30 day total weight of segregated non-MSW materials shall be divided by the total weight of all waste materials received in the same 30 day period, and the resultant number shall be multiplied by 100 to express the ratio in percentage terms. The percentage computed shall be compared to the 5% limitation.

8. No Change.

9. Continuous Emission Monitoring

a. No Change.

(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. No change in remainder of condition.

(2) and (3). No change.

b. No change.

c. No change.

10. Reporting

a. A copy of the results of the compliance tests shall be submitted within forty-five days of testing to the DEP Bureau of Air Regulation, the DEP Southeast District Office and Broward County ~~and EPA Region IV~~.

PSD AND CONDITIONS of CERTIFICATION:

FROM: ~~The temperature of flue gases exiting the acid gas control equipment shall not exceed 300°F.~~

TO: *11* ~~12~~. Compliance with the PM Control Device Temperature:
Each MWC unit is required to continuously monitor and record the flue gas temperature at the inlet to the PM control device in accordance with the requirements at 40 CFR 60.58b(i)(7). The PM control device temperature shall be calculated in 4-hour block arithmetic averages. Each MWC unit shall be allowed to operate up to 17°C (30° F) above the unit's maximum demonstrated PM control device temperature. The maximum demonstrated PM control device temperature is the highest 4-hour arithmetic block-averaged measurement of temperature at the inlet to the PM control device recorded for 4 consecutive hours during the most recent dioxin/furan performance test which complied with the limits given above. The PM control device inlet temperature and the steam (or feedwater) flow for each unit during the stack test shall be continuously monitored and recorded in accordance with 40 CFR 60, Subpart Cb. Higher temperatures are allowed for testing purposes, as specified at 40 CFR 60.53b(c). **[Rule 62-204.800(8), F.A.C. and 40 CFR 60.38b, 40 CFR 60.53b(c) and 60.58b(i)(7) and (9)]**

FROM: ~~The temperature of the flue gas exiting the final combustion chamber of the incinerator shall not be less than 1800°F.~~
TO: This condition is deleted from the Conditions of Certification. The rationale is explained in the Technical Evaluation and Preliminary Determination dated May 20, 1999. A new specific condition, as stated below, will use this c(2) numeration in the Conditions of Certification.

NEW SPECIFIC CONDITIONS 12~~,~~ and 13~~, and 14 and 15~~

12. METAL RECOVERY FACILITY
The metal recovery area will be enclosed in a building adjacent to the existing ash loadout area. All bottom ash is currently quenched with water after leaving each boiler. The resulting bottom ash will be about 20 to 30 percent moisture and will not generate fugitive dust.

~~**13. ELECTRIC UTILITY STEAM GENERATING UNIT ACTUAL EMISSIONS**~~
~~The permittee shall provide the Department within the period not longer than 10 years following the change, information demonstrating that the physical or operational change did not result in a "representative actual annual emissions" increase in accordance with Rule 62-210.200 (12)(d), F.A.C., and Rule 62-212.400, F.A.C.~~
~~[40 CFR 52.21(b)(33), Rule 62-4.070 (3), Rule 62-212.400, and Rule 62-210.200, F.A.C.]~~

13 ~~14~~. SCHEDULE OF COMPLIANCE

The compliance schedule for each unit is provided below.

Increment 1: 2 months after EPA approval of the Florida State Plan
Increment 2: 8 months after EPA approval of the Florida State Plan
Increment 3: 24 months after EPA approval of the Florida State Plan
Increment 4: 34 months after EPA approval of the Florida State Plan
Increment 5: 36 months after EPA approval of the Florida State Plan or by December 19, 2000

The five increments of progress are:
Increment 1: Submittal of a final control plan for the designated facility to the appropriate air pollution control agency.
Increment 2: Awarding of contracts for emission control system or for process modification, or issuance of orders for the purchase of components parts to accomplish emission control or process modification.
Increment 3: Initiation of on-site construction or installation of emission control equipment or process change.
Increment 4: Completion of on-site construction or installation of emission control equipment or process change.
Increment 5: Final compliance.

~~**15. DETERMINATION OF PROCESS VARIABLES**~~
~~Any other operating parameters (including but not limited to control equipment operating parameters) established during compliance testing and/or inspection that will confirm the proper operation of each emission unit shall be included in the operating permit [Rule 62-297.310 (5), F.A.C. and 62-4.070(3), F.A.C.]~~

A copy of this letter shall be filed with the PSD-FL-105 permit and shall become part of the permit.