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PERMITTEE

Pinellas County
Department of Environmental and Infrastructure
3095 114th Avenue North
St. Petersburg, Florida 33716
Authorized Representative:
Mr. Robert J. Hauser, Director

Air Permit No. 1030117-009-AC (PSD-FL-420)
Pinellas County Resource Recovery Facility
Standard Industrial Classification Code No. 4953
Facility Improvement Projects
Emission Standards and Process Limits
Expiration Date: December 31, 2013

PROJECT

This final air construction permit is related to a previous Facility Improvement Project, which authorized furnace tube, stoker grate and air preheater replacements and improvements to the air pollution control and monitoring systems on the three municipal waste combustors (MWC) at the Pinellas County Resource Recovery Facility located at 3001 110th Avenue North in St. Petersburg, Florida. The UTM coordinates are Zone 17, 335.273 km East, and 3084.304 km North.

This permit establishes a single process rate limitation and Best Available Control Technology (BACT) limits for carbon monoxide (CO), sulfur dioxide (SO_2), MWC-acid gases and particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers ($PM_{2.5}$). It authorizes additional improvements as needed to comply with these limits. The new permit replaces and supersedes the emission standards, including BACT determinations, and process limits in previous air construction Permit Nos. PSD-FL-011 (Units 1 and 2) and PSD-FL-098 (Unit 3) issued in 1979 and 1987 and subsequent modifications to those permits.

This final permit is organized into the following sections: Section 1 (General Information); Section 2 (Administrative Requirements); Section 3 (Emissions Unit Specific Conditions); Section 4 (Appendices). Because of the technical nature of the project, the permit contains numerous acronyms and abbreviations, which are defined in Appendix A of Section 4 of this permit.

STATEMENT OF BASIS

This air pollution construction permit is issued under the provisions of: Chapter 403 of the Florida Statutes (F.S.) and Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297 of the Florida Administrative Code (F.A.C.). The permittee is authorized to conduct the proposed work in accordance with the conditions of this permit. This project is subject to the general preconstruction review requirements in Rule 62-212.300, F.A.C. and the preconstruction review requirements for major stationary sources in Rule 62-212.400, F.A.C. - Prevention of Significant Deterioration of Air Quality.

Upon issuance of this final permit, any party to this order has the right to seek judicial review of it under Section 120.68 of the Florida Statutes by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel (Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000) and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within 30 days after this order is filed with the clerk of the Department.

Executed in Tallahassee, Florida

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CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Final Air Permit package (including the Final Determination and Final Permit with Appendices) was sent by electronic mail, or a link to these documents made available electronically on a publicly accessible server, with received receipt requested before the close of business on the date indicated below to the following persons.

Robert J. Hauser, Director, Pinellas County Solid Waste Division: rhauser@pinellascounty.org
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Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to Section 120.52(7), Florida Statutes, with the designated agency clerk, receipt of which is hereby acknowledged.

FACILITY DESCRIPTION

The Pinellas County Resource Recovery Facility consists of: a municipal solid waste (MSW) landfill; three nominal 1,050 tons per day (tons/day) municipal waste combustors (MWC) with auxiliary burners; lime storage and processing facilities, an activated carbon storage facility, ash storage and processing facilities, a metals recovery system, a cooling tower and, ancillary support equipment. The facility is owned by Pinellas County and presently operated by Veolia ES Pinellas, Inc. Each MWC unit has a maximum continuous rating (MSC) of 256,000 pounds per hour (lb/hour) of steam and a peak 4-hour rating of 275,000 lb/hour.

The nominal rating of 1,050 tons/day/unit is based on a solid waste heat content of 5,000 British thermal units (Btu/lb). The actual daily throughput rate of solid waste needed to achieve the MSC rating can be substantially greater or less than the nominal rating based, e.g., on moisture content or plastic fraction of the solid fuel. The three units combined produce sufficient steam to generate approximately 77 megawatts (MW) of electricity

Units 1 and 2 began commercial operation in 1983, while Unit 3 began commercial operation in 1986. Emissions from each unit are controlled by:

- Good combustion practices (GCP) in the furnaces that minimize formation of carbon monoxide (CO), nitrogen oxide (NO_X) and particulate matter (PM);
- Urea-based Selective Non-Catalytic Reduction (SNCR) systems in each furnace to further control NO_X emissions;
- Spray Dryer Absorbers (SDA), based on lime slurry injection, which absorbs and neutralizes MWC-acid gases including sulfur dioxide (SO_2) and hydrogen chloride (HCl) for subsequent capture as PM;
- Powered Activated Carbon Injection (ACI) systems to capture (adsorb) certain metals, such as mercury (Hg), and organic hazardous air pollutants (HAP) including dioxin and furan (dioxin/furan) for subsequent capture as PM; and
- Fabric filters (baghouses) to capture PM originating from combustion, the acid gas reactions and the spent activated carbon.

The facility is equipped with continuous emission monitoring systems (CEMS) for carbon monoxide (CO), SO_2 and NO_X and continuous opacity monitoring systems (COMS) for visible emissions (VE). The three exhaust to a common stack consisting of three separate flues.

This permit affects or includes the emissions units (E.U.) listed below that were constructed under the authority of EPA Permit Nos. PSD-FL-011 and PSD-FL-098 issued in 1979 and 1987, respectively and Florida Power Plant Site Certifications PA78-11 and PA83-18 issued in 1979 and 1984 (revised 1986), respectively.

E.U. No.	Emission Unit Description
001	Municipal Waste Combustor Unit 1
002	Municipal Waste Combustor Unit 2
003	Municipal Waste Combustor Unit 3

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PROPOSED PROJECT

The proposed project is related to the Facility Improvement Project (previously permitted in December 2006) consisting of: MWC furnace tube, stoker grate and air preheater replacements and improvements to the MWC air pollution control and monitoring systems. The permit authorizes further work and establishes emission standards and process limits as follows:

- Best Available Control Technology (BACT) emission standards for CO, SO_2 and PM smaller than 2.5 micrometers ($PM_{2.5}$);
- A single steam production limit of 275,000 lb/hr on a 4-hour block basis;
- Physical changes to, or changes in the method of operation of, the grates, auxiliary burners, furnaces, combustion air, tipping floor and refuse pit to achieve better burnability of waste stream consistent with the CO BACT determination and emission standard;
- Physical changes to, or changes in the method of operation, of the spray dryer absorbers to improve contact and reaction between exhaust gases and injected lime slurry consistent with the SO_2, MWC-acid gases and $PM_{2.5}$ BACT determinations and emission standards;
- Physical changes to, or changes in the method of operation of, fabric filters (baghouses) to capture PM in general and specifically $PM_{2.5}$ consistent with the $PM_{2.5}$ BACT determination; and
- Physical changes to, or changes in the method of operation of, the SNCR system to minimize NH_3 emissions (slip) and condensable $PM_{2.5}$ formation consistent with the $PM_{2.5}$ and visible emissions BACT determinations.
- Replacement of original, less stringent, BACT emission standards with the determinations made for this project or the applicable requirements contained in the Department's Large MWC Rule described below.

FACILITY REGULATORY CLASSIFICATION

- The facility is a major source of hazardous air pollutants (HAP).
- The facility does not operate units subject to the acid rain provisions of the Clean Air Act (CAA).
- The facility is a Title V major source of air pollution in accordance with Chapter 213, F.A.C.
- The facility is a major stationary source in accordance with Rule 62-212.400(PSD), F.A.C.
- The facility is regulated under Rules 62-296.401(2), F.A.C. - Incinerators and 62-296.416, F.A.C. - Waste-to-Energy Facilities.
- The facility is regulated under Rule 62-204.800(9)(b), F.A.C. – Municipal Waste Combustors. 40 Code of Federal Regulations, Part 60 (40 CFR 60), Subpart Cb, Emission Guidelines and Compliance Times for Large Municipal Waste Combustors That Are Constructed on or Before September 20, 1994 (the Department's MWC Rule).
- The facility is regulated under Chapter 62-17, F.A.C. – Electrical Power Plant Siting

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SECTION 2. ADMINISTRATIVE REQUIREMENTS

1. Permitting Authority: The Permitting Authority for this project is the Office of Permitting and Compliance in the Division of Air Resource Management of the Department of Environmental Protection (Department). The mailing address for the Office of Permitting and Compliance is 2600 Blair Stone Road, MS #5505, Tallahassee, Florida 32399-2400.

2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Southwest District Office at: 13051 N. Telecom Parkway, Temple Terrace, FL 33637-0926.

3. Appendices: The following Appendices are attached as a part of this permit: Appendix A (Citation Formats and Glossary of Common Terms); Appendix B (General Conditions); Appendix C (Common Conditions); and Appendix D (Common Testing Requirements).

4. Applicable Regulations, Forms and Application Procedures: Unless otherwise specified in this permit, the construction and operation of the subject emissions units shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of: Chapter 403, F.S.; and Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296 and 62-297, F.A.C. Issuance of this permit does not relieve the permittee from compliance with any applicable federal, state, or local permitting or regulations.

5. New or Additional Conditions: For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]

6. Modifications: No emissions unit shall be constructed or modified without obtaining an air construction permit from the Department. Such permit shall be obtained prior to beginning construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]

7. Source Obligation:
   (a) Authorization to construct shall expire if construction is not commenced within 18 months after receipt of the permit, if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time. This provision does not apply to the time period between construction of the approved phases of a phased construction project except that each phase must commence construction within 18 months of the commencement date established by the Department in the permit.
   (b) At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by virtue of a relaxation in any enforceable limitation which was established after August 7, 1980, on the capacity of the source or modification otherwise to emit a pollutant, such as a restriction on hours of operation, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification.
   (c) At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by exceeding its projected actual emissions, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification.

   [Rule 62-212.400(12), F.A.C.]

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8. Title V Permit: This permit authorizes specific modifications and/or new construction on the affected emissions units as well as initial operation to determine compliance with conditions of this permit. A Title V operation permit is required for regular operation of the permitted emissions unit. The permittee shall apply for a Title V operation permit at least 90 days prior to expiration of this permit, but no later than 180 days after completing the required work and commencing operation. To apply for a Title V operation permit, the applicant shall submit the appropriate application form, compliance test results, and such additional information as the Department may by law require. The application shall be submitted to the appropriate Permitting Authority with copies to each Compliance Authority. [Rules 62-4.030, 62-4.050, 62-4.220, and Chapter 62-213, F.A.C.]

9. Future Monitoring, Reporting and Recordkeeping of Projected Actual Emissions: This construction permit avoids the requirements of subsections 62-212.400(4) through (12), F.A.C., for certain pollutants based in whole or in part on projected actual emissions calculations. In accordance with Rule 62-212.300(1)(e), F.A.C., the following monitoring, reporting and recordkeeping provisions shall apply to emissions of such pollutants as described in Section 3, Specific Condition 33.

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This section of the permit addresses the following emissions units.

E.U. No.	Emission Unit Description
001	Municipal Waste Combustor Unit 1
002	Municipal Waste Combustor Unit 2
003	Municipal Waste Combustor Unit 3
005	Residue Storage and Processing Building

Design Waste Throughput Rating: The design waste throughput rating of each municipal waste combustor is 1,050 tons/day when burning waste with a higher heating value (HHV) of 5,000 British thermal units per pound (Btu/lb). Actual waste throughput will vary depending upon the HHV of the waste actually burned and the steam production requirements as described and limited below.

Design Heat Input Rating of the Auxiliary Burners: The design heat input rating of each of the two natural gas-fueled auxiliary burners in each municipal waste combustor unit is 65 MMBtu/hour and may be replaced with new burners with design heat input ratings less than or equal to 99 MMBtu/hr.

APPLICABLE PERMITS, STANDARDS AND REGULATIONS

1. Previous Air Construction Permits: MWC Units 1, 2 and 3 were constructed or improved pursuant to original air construction Permit Nos. PSD-FL-011 and PSD-FL-098 and modifications thereto. [Permits PSD-FL-011 and PSD-FL-011(A,B and C); PSD-FL-098 and PSD-FL-098 (A,B,C)]

2. Facility Improvement Project PSD Permit: This final air construction Permit No. 1030117-009-AC (PSD-FL-420) replaces and supersedes the original air construction Permit Nos. PSD-FL-011 and PSD-FL-098 and modifications thereto.
[Rules 62-4.080, 62-210.300, 62-212.300 and 62-212.400, F.A.C.]

3. Facility Title V Air Operation Permit: Requirements applicable to this facility prior to the present project are contained in Title V Operation Permit 1030117-008-AV, issued on August 22, 2011. The Title V permit will be updated to reflect the present project as described in Section 2, Specific Condition 8 above. [Permit 1030117-008-AV; Chapter 62-213, F.A.C.]

4. Best Available Control Technology (BACT) Determinations: Determinations of the BACT are established for the Facility Improvement Project for CO, NO_X, SO_2, MWC-acid gases, $PM_{2.5}$ (including condensable $PM_{2.5}$) and opacity.
[Application; Rules 62-210.200 (Definition - BACT) and 62-212.400 (PSD/BACT), F.A.C.; Consistency with Rule 62-204.800(9)(b), F.A.C.]

   {Permitting Note: Permit PSD-FL-011 issued in 1978 specified numerical BACT limit only for PM on MWC Units 1 and 2 and determined the "the (control) systems proposed by the applicant represent BACT for PM, SO_2, NO_X and CO". PSD-FL-098 issued in 1987 specified numerical BACT limits on MWC Unit 3 for the following pollutants: CO, NO_X, PM, SO_2, lead, mercury, fluoride and visible emissions. These numerical limits are replaced in the present permitting action by the BACT determinations for the Facility Improvement Project or the requirements of the Department's MWC Rule if more stringent than past BACT determinations.}

5. Municipal Waste Combustor Rule: These units are subject to Rule 62-204.800(9)(b), F.A.C., Municipal Waste Combustors, applicable to existing facilities with a municipal waste combustor unit capacity greater than 250 tons per day of municipal solid waste, and for which construction, reconstruction, or modification was commenced on or before September 20, 1994. Notification and compliance and performance testing requirements have already been satisfied.
[Rule 62-204.800(9)(b), F.A.C.; 40 CFR 62.2355 (Dec. 30, 2010, as amended Feb. 9, 2012)]

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6. New Source Performance Standards: The two auxiliary burners in each MWC are subject to 40 CFR 60, Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units. The notification requirements have been satisfied. [Rule 62-204.800(8)(d) and 62-204.800(8)(b)4., F.A.C.; and 40 CFR 60, Subparts A and Dc]

EXISTING EQUIPMENT

7. Municipal Waste Combustors: The permittee constructed and now operates and maintains three mass burn MWC including tipping floor, refuse bunkers, feed equipment, grates, auxiliary burners, furnaces, boilers, steam turbine-electrical generators, air pollution control equipment, storage equipment, materials recovery systems and stack. [Application; Permit Nos. PSD-FL-011 and PSD FL-098 and modifications thereto; Site Certification Nos. PA78-11 and PA83-18 and modifications thereto; Rules 62-212.300 and 62-212.400, F.A.C.]

8. Residue Storage and Processing Building (RSPB – E.U. 005): The permittee constructed and (under the Facility Improvement Project) rebuilt the RSPB, which is a part of the MWC ash handling systems. Bottom ash is wetted in a quench tank and fly ash is wetted in a pug mill. A metal recovery system separates ash residue into ferrous and non-ferrous metals streams and an aggregate stream. The RSPB has exhaust fans, a baghouse for the ash conveyance system and an exhaust stack with a height of approximately 16 feet. The RSPB is regulated by Specific Condition 21 - MWC Fugitive Ash Emissions and by conditions established in the Facility Title V Operation Permit. [Permit 1070117-007-AC; Rule 62-204.800(9)(b), F.A.C.]

9. MWC Boiler Name Plates. Each MWC boiler shall have a metal name plate affixed in a conspicuous place on the shell showing the manufacturer, model number, type of waste, rated capacity, and certification number. The metal name plate on the MWC Unit 3 boiler shall also show boiler efficiency. [Permit Nos. PSD-FL-011 and PSD-FL-098, as amended; Power Plant Siting, Conditions of Certification, as amended]

10. Stack Height. The height of the single stack shall not be less than 165 feet above the ground level at the base of the stack. [Permit Nos. PSD-FL-011 & PSD-FL-098, as amended; Power Plant Siting, Conditions of Certification, as amended]

AIR POLLUTION CONTROL EQUIPMENT

11. Air Pollution Control Equipment: For each unit, the permittee constructed and shall operate, maintain and further improve the following equipment as required to comply with the Emission Standards in Condition 20:

    a. SNCR System: A urea-based SNCR system including storage tank, pumps and injection ports to control emissions of NO_X. Operation is required only to the extent required to comply with emission standards and to avoid a significant emission increase on the basis of baseline to projected actual emissions as the terms are defined in Rule 62-210.200 (Definitions), F.A.C.).

    b. Spray Dryer Absorber: A spray dryer absorber system including lime storage silo, slaking equipment and lime slurry injection equipment for the purpose of removing MWC-acid gases including HCl and SO_2.

    c. Activated Carbon Injection System: A carbon injection system including storage silo for the purpose of removing mercury and MWC-organics such as dioxin/furans.

    d. Fabric Filter (baghouse): A fabric filter (baghouse) for the purpose of removing PM, including ash and the reagent/reaction products from of the spray dryer absorber and carbon injection system.

    [Rules 62-4.070(1) and (3), 62-210.650 and Consistency with Rule 62-204(9)(b), F.A.C.; and PSD-FL-011(B) and PSD-FL-098(B)]

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12. Circumvention: The permittee shall not circumvent the air pollution control equipment or allow the emissions of air pollutants without this equipment operating properly. [Rule 62-210.650, F.A.C.]

AUTHORIZED CONSTRUCTION

13. Facility Improvement Project: The previously approved Facility Improvement Project modified the MWC and triggered the requirement to obtain this permit. The project consisted of furnace tube, stoker grate and air preheater replacements and improvements to the MWC air pollution control and monitoring systems. [Permit 1030117-008-AC (PSD-FL-011C and PSD-FL-098C)]
14. Additional Construction Authorized: Additional construction authorized by the present permit includes:
    a. Physical changes to, or changes in the method of operation of, the grates, furnaces, auxiliary burners, combustion air, tipping floor and refuse pit to achieve better burnability of waste stream consistent with the CO BACT determination and emission standard;
    b. Physical changes to, or changes in the method of operation, of the spray dryer absorbers to improve contact and reaction between exhaust gases and injected lime slurry consistent with the SO_2, MWC-acid gases and $PM_{2.5}$ BACT determinations and emission standards; and
    c. Physical changes to, or changes in the method of operation of, fabric filters (baghouses) to capture PM in general and specifically $PM_{2.5}$ consistent with the $PM_{2.5}$ BACT determination.
    d. Physical changes to, or changes in the method of operation of, the SNCR system to minimize NH_3 emissions (slip) and condensable $PM_{2.5}$ formation consistent with the $PM_{2.5}$ and visible emissions BACT determinations.

    [Application; Rules 62-210.300 and 62-212.400, F.A.C.]

PERFORMANCE RESTRICTIONS

15. Maximum Operating Rates: The maximum operating rate of each MWC measured as steam flow shall not exceed 275,000 pounds/hour based on 4-hour block averaged measurements and shall not exceed the "maximum demonstrated MWC unit load" defined as 110% percent of the highest 4-hour average MWC unit load achieved during 4 consecutive hours during the most recent dioxin/furan performance test. MWC waste throughput is limited to an average of 3,000 tons/day or 1,095,000 tons/year, over the three units combined on a 12-month rolling average. [Application; Rule 62-210.200, F.A.C. (Definition of Potential to Emit - PTE) and the Department's MWC Rule]
16. Auxiliary Fuel Burners: The auxiliary fuel burners shall be fueled only with natural gas or propane and used during startup, shutdown and for flame stabilization. The maximum heat input rate to the burners is 99 MMBtu/hour. [Applicant Request]
17. Hours of Operation: The hours of operation of are not limited (8760 hours per year). [Rule 62-210.200(PTE), F.A.C.; and Permit Nos. PSD-FL-011 and PSD-FL-098, as amended]
18. Permitted Waste and Fuels: The primary fuel for the three MWCs is municipal solid waste (MSW), including the items and materials that fit within the definition of MSW contained in 40 CFR 60.51b. Natural gas or propane are authorized as described in Specific Condition 16 above. Additionally:
    a. Other fuels or wastes, not specifically listed in 40 CFR 60.51b, shall not be burned without written prior approval from the Department;
    b. The approved slate of nonhazardous solid and liquid waste, other than MSW, that may processed/combusted in the three MWCs is contained in the Facility Title V Operating Permit; and

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c. Sewage sludge (biosolids), grease, scum, and grit screenings (previously prohibited by original PSD permits) are not prohibited and may be approved by the Department as described above.

[Rule 62-4.070, F.A.C.; Permit 1030117-008-AV]

{Permitting note: After construction of Units 1, 2 and 3, the applicant installed air pollution controls for hazardous air pollutants pursuant to the Department's MWC Rule, reducing concerns about waste slate.}

EMISSIONS STANDARDS

19. MWC Rule Emission Standards: The emission standards for large mass-burn MWCs contained in the Department's MWC Rule apply to MWC Units 1, 2 and 3. The standards are incorporated as applicable requirements within the Facility Title V Air Operation Permit and not specifically in this PSD permit. [Rule 62-204.800(9)(b), F.A.C.; Permit 1030117-008-AV]

20. BACT Emissions Standards: Emissions from each MWC shall not exceed the following BACT standards:

Parameter	MWC Units 1, 2	MWC Unit 3	Compliance[1]
PM	25 mg/dscm @7% O_2 [2]	25 mg/dscm @7% O_2 [3]	Initial, Annual Test
$PM_{2.5}$	30 mg/dscm @7% O_2 [4]	30 mg/dscm @7% O_2 [4]	Initial, Annual Test
NO_X	BACT not applicable [5]	205 ppmvd @7% O_2 [6]	24-hour CEMS
CO	100 ppmvd @7% O_2 [7]	100 ppmvd @7% O_2 [7,8]	4-hour block CEMS
SO_2	24 ppmvd @7% O_2 [9]	24 ppmvd @7% O_2 [9]	24-hour geometric mean CEMS
HCl	20 ppmvd @7% O_2 [10]	20 ppmvd @7% O_2 [10]	Initial, Annual Test
Lead (Pb)	BACT not applicable [5]	400 µg/dscm @7% O_2 [11]	Initial, Annual Test
Mercury (Hg)	BACT not applicable [5]	50 µg/dscm @7% O_2 or 85% reduction [12]	Initial, Annual Test
Fluoride	BACT not applicable [5]	8.31 lb/hour [13]	Compliance Demonstrated
Visible Emissions	10% Opacity [14]	10% Opacity [14]	6-minute COMS, Annual Test

1. To the extent feasible, the averaging times and compliance and performance testing methods and schedules are the same as specified in the Department's MWC Rule (effective May 31, 2007).
2. mg/dscm @7% O_2 means milligrams per dry standard cubic meter at 7 oxygen. This value is from the Department's MWC Rule and replaces the original BACT of 180 mg PM/dscm @12% carbon dioxide (CO_2) per Permit PSD-FL-011.
3. This value is from the Department's MWC Rule and replaces the original BACT of 0.03 grains PM/per dry standard cubic foot (gr/dscf) @12% CO_2.
4. $PM_{2.5}$ includes filterable and condensable $PM_{2.5}$.
5. EPA did not set a numerical values in 1979 Permit PSD-FL-011. Values in Department's MWC Rule apply.
6. ppmvd @7% O_2 means parts per million by volume, dry @7% oxygen. This value is from the Department's MWC Rule and replaces the original BACT of 254 lb NO_X/hour per Permit PSD-FL-098.
7. This value is from the Department's MWC Rule and is BACT for the Facility Improvement Project.
8. Replaces the original BACT value of 66 lb CO/hour contained in original Permit PSD-FL-098.
9. This value is more stringent than the emission standard contained in the Department's MWC Rule. Replaces non-BACT State-enforceable standard for SO_2 of 1.2 pounds per million Btu (lb/MMBtu) in the original Site Certification Order for Units 1 and 2 and the BACT standard of 170 lb/hour in the original Permit PSD-FL-098 for Unit 3.
10. This value is more stringent than the emission standard contained in the Department's MWC Rule.
11. µg/dscm means micrograms/dscm. This value is from the Department's MWC Rule and replaces the original BACT of 2.8 lb Pb/hour per Permit PSD-FL-098.
12. This value from the Department's MWC Rule replaces the original BACT of 0.294 lb Hg/hour per Permit PSD-FL-098.
13. Fluoride BACT value from original Permit PSD-FL-098 for MWC Unit 3. Refer to Condition 23 below.
14. This value from Department's MWC Rule and represents BACT for Facility Improvement Project. Compliance by annual test. Requirement to operate continuous opacity monitoring system (COMS).

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21. MWC Fugitive Ash Emissions: The potential for dust generation by ash handling activities shall be mitigated by reasonable precautions.

    (a) No owner or operator of an affected 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 observations as specified in Section 40 CFR 60.58b(k), except as provided in paragraphs (b) and (c) of this section.

    (b) The emission limit specified in paragraph (a) of this section does not cover visible emissions discharged inside buildings or enclosures of ash conveying systems; however, the emission limit specified in paragraph (a) of this section does cover visible emissions discharged to the atmosphere from buildings or enclosures of ash conveying systems.

    (c) The provisions specified in paragraph (a) of this section do not apply during maintenance and repair of ash conveying systems.

    [Rules 62-296.320(40(c), and 62-212.400, F.A.C.; Consistency with Rule 62-204.800(9)(b), F.A.C.; Replacement of related condition in Permit PSD-FL-098]

TESTING REQUIREMENTS

22. Continuous Compliance: The permittee shall demonstrate continuous compliance with the CO, NO_X, SO_2 and visible emissions standards based on data collected by the certified CEMS and COMS. [Consistency with Rule 62-204.800(9), F.A.C.]

23. Initial, Annual Compliance Tests: The owner or operator shall conduct a performance test on each of the three MWC units for PM, $PM_{2.5}$, opacity and HCl and on MWC Unit 3 for HCl, lead and mercury on a calendar year basis (no less than 9 calendar months and no more than 15 calendar months following the previous performance test and must complete five performance tests in each 5-year calendar period). With the exception of $PM_{2.5}$, all initial testing requirements pursuant to the new or updated BACT determinations shall be simultaneously satisfied by the annual tests required in 2013 by the Department's MWC Rule. The initial $PM_{2.5}$ test shall be conducted within 7 days of the PM tests conducted in 2013. [Rules 62-4.070, 62-212.400 and 62-297.310(7), F.A.C.; Consistency with 62-204.800(9)(b)7., F.A.C.; Permits PSD-FL-011 and PSD-FL-098]

    {Permitting note: Initial and subsequent fluoride performance tests (following installation of a fabric filter) have been conducted on MWC Unit 3 that demonstrate emissions much less than the respective BACT emission standard. No further fluoride performance tests are required.}

24. Test Requirements: The permittee shall notify the Compliance Authority in writing at least 15 days prior to any required tests. Tests shall be conducted in accordance with the applicable requirements specified in Appendix D (Common Testing Requirements) of this permit.
    [Rule 62-297.310(7)(a)9, F.A.C.]

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25. Test Methods: Required tests shall be performed in accordance with the following reference methods.

Method	Description of Method and Comments
1 - 4	Determination of Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content. Methods shall be performed as necessary to support other methods.
3, 3A or 3B	Any of these methods shall be used to determine O_2 or carbon dioxide (CO_2) diluent concentration when conducting relative accuracy test audits (RATA) in conjunction with diluent O_2 or CO_2-CEMS installed, calibrated, maintained and operated in accordance with 40 CFR 60, Appendix B, Performance Specification 3 (PS-3) and Appendix F.
5	Method for Determining PM. The minimum sample volume shall be 1.7 cubic meters (60 dry standard cubic feet). The probe and filter holder heating systems in the sample train shall be set to provide a gas temperature no greater than 160 °F (320 °F). An O_2 or CO_2 measurement shall be obtained simultaneously with each Method 5 run.
Revised 201A and 202	Methods for Determining Filterable $PM_{2.5}$ and condensable $PM_{2.5}$.
6, 6A or 6C	Any of these methods shall be used to determine SO_2 concentrations when conducting RATA in conjunction with SO_2-CEMS installed, maintained and operated in accordance with 40 CFR 60, Appendix B, PS-2 and Appendix F.
7, 7A, 7B, 7C, 7D or 7E	Any of these methods shall be used to determine NO_X Emissions when conducting RATA in conjunction with NO_X-CEMS installed, calibrated, maintained and operated in accordance with 40 CFR 60, Appendix B, PS-2 and Appendix F.
9	Visual Determination of the Opacity of Emissions from Stationary Sources.
10, 10A or 10B	Any of these methods shall be used to determine CO emissions when conducting RATA in conjunction with CO-CEMS installed, calibrated, maintained and operated in accordance with 40 CFR 60, Appendix B, PS-4A and Appendix F.
19	Data Reduction Procedures for Determination of SO_2 Removal Efficiency and PM, SO_2, and NO_X Emission Rates
26, 26A	Methods for Determining hydrogen halide and halogen emissions.
29	Determination of Metals Emissions from Stationary Sources. Specifically, mercury (Hg) and lead (Pb) for MWC Unit 3.

The above methods are described in Appendix A of 40 CFR 60 and are adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Rules 62-204.800 and 62-297.100, F.A.C.; and Appendix A of 40 CFR 60]

EXCESS EMISSIONS

{Permitting Note: The Excess Emissions Rule at Rule 62-210.700, F.A.C., cannot vary or supersede any requirement of standards pursuant to 40 CFR Parts 60 and 63 in general and the Department's MWC Rule (based on 40 CFR 60, Subpart Cb) in particular. The allowable excess emissions periods given below have been harmonized to the extent feasible with the provisions of the Department's MWC Rule.}

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26. Excess Emissions Allowed - Startup, Shutdown or Malfunction. Excess emissions resulting from startup, shutdown or malfunction shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. A malfunction means any unavoidable failure of air pollution control equipment or process equipment to operate in a normal or usual manner. The Department authorizes:

    a. Three hours in any 24-hour period for these emissions units; and

    b. For the purpose of compliance with the CO emission limits in Specific Condition 20, if a loss of boiler water level control (e.g., loss of combustion air fan, induced draft fan, combustion grate bar failure) is determined to be a malfunction, the duration of the malfunction period is limited to 15 hours per occurrence.

    [Rules 62-212.400(BACT) and 62-210.700, F.A.C.; Consistency with Rule 62-204.800(9)(b), F.A.C.]

27. Excess Emissions Prohibited. 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 startup, shutdown or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]

CONTINUOUS MONITORING REQUIREMENTS

28. CEMS and COMS: The permittee shall calibrate, maintain and operate the following existing CEMS and COMS on each MWC unit:

    a. SO_2 and NO_X - CEMS in accordance with 40 CFR 60, Appendix B, PS- 2 and Appendix F and for the purpose of demonstrating continuous compliance with the respective emission standards in Specific Condition 20**.**

    b. CO - CEMS in accordance with 40 CFR 60, Appendix B, PS-4A and Appendix F and for the purpose of demonstrating continuous compliance with the CO emission standard in Specific Condition 20.

    c. O_2 or CO_2 diluent CEMS in accordance with 40 CFR 60, Appendix B, PS-3 and Appendix F and for the purpose of correcting the emission standards in Specific Condition 20 to the stated O_2 content.

    d. A COMS in accordance with 40 CFR 60, Appendix B, PS-1 and for the purpose of demonstrating compliance with the 10% opacity standard in Specific Condition 20**.**

    e. The CEMS for CO, NO_X, SO_2, O_2, CO_2, and the COMS shall comply with all requirements of Section 40 CFR 60.58b.

    [Rules 62-213.440 and 62-212.400, F.A.C.; and Consistency with Rule 62-204.800(9)(b), F.A.C.]

29. Continuous Steam Flow Monitoring System: The owner or operator shall install, calibrate, maintain, and operate a steam flow meter or a feedwater flow meter; measure steam flow in lb/hour on a continuous basis; and record the output of the monitor. Steam flow shall be calculated in 4-hour block arithmetic averages. Additionally:

    a. The method included in the "American Society of Mechanical Engineers Power Test Codes: Test Code for Steam Generating Units, Power Test Code 4.1-1964 (R1991)" Section 4 shall be used for calculating the steam flow. The recommendations in "American Society of Mechanical Engineers Interim Supplement 19.5 on Instruments and Apparatus: Application, Part II of Fluid Meters, 6th edition (1971)," Chapter 4, shall be followed for design, construction, installation, calibration, and use of nozzles and orifices.

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b. All signal conversion elements associated with steam measurements must be calibrated according to the manufacturer's instructions at least once per year.

[Rule 62-210.200 (Definitions-PTE), F.A.C.; and Consistency with Rule 62-204.800(9)(b), F.A.C.]

RECORDS AND REPORTS

30. Stack Test Reports: The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Compliance Authority on the results of each such test. The required test report shall be filed with the Compliance Authority as soon as practical but no later than 45 days after the last sampling run of each test is completed. The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Compliance Authority to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide information as specified in Rule
62-297.310(8)(c), F.A.C. [Rule 62-297.310, F.A.C.]

31. Excess Emissions Reporting:

    a. Malfunction Notification: If emissions in excess of a standard (subject to the specified averaging period) occur due to malfunction, the permittee shall notify the Compliance Authority within one working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Department may request a written summary report of the incident.

    b. State Implementation Plan (SIP) Quarterly Permit Limits Excess Emissions Report: Within 30 days following the end of each calendar-quarter, the permittee shall submit a report to the Compliance Authority summarizing periods of SO_2, CO, and NO_X emissions, as well as opacity in excess of the permit emission standards following the NSPS format in 40 CFR 60.7(c), Subpart A. Periods of startup, shutdown and malfunction, shall be monitored, recorded and reported as excess emissions when emission levels exceed the standards specified in this permit. In addition, the report shall summarize the CEMS and COMS availability for the previous quarter.

    [Rules 62-4.130 and, 62-204.800(8)(c), F.A.C.; and Consistency with Rule 62-204.800(9)(b), F.A.C.]

32. Annual Operating Report: The permittee shall submit an annual report that summarizes the actual operating rates and emissions from this facility. Annual operating reports shall be submitted to the Compliance Authority by April 1st of each year. [Rule 62-210.370, F.A.C.]

33. Future Monitoring, Reporting and Recordkeeping of Projected Actual Emissions: This construction permit avoids the requirements of subsections 62-212.400(4) through (12), F.A.C., for certain pollutants based in whole or in part on projected actual emissions calculations. In accordance with Rule 62-212.300(1)(e), F.A.C., the following monitoring, reporting and recordkeeping provisions shall apply to emissions of such pollutants:

    1. The permittee shall monitor the emissions of NO_X, MWC-metals, PM and PM_{10} (including condensable PM_{10}); and, using the most reliable information available, calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of 5 years (2011 through 2015) following resumption of regular operations after the change. Emissions shall be computed in accordance with Rule 62-210.370, F.A.C.

    2. The permittee shall report to the Department within 60 days after the end of each year during which records must be generated under subparagraph 62-212.300(1)(e)1., F.A.C., setting out the unit's annual emissions during the calendar year that preceded submission of the report. The report shall contain the following:

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a. The name, address and telephone number of the owner or operator of the major stationary source;

b. The annual emissions as calculated pursuant to subparagraph 62-212.300(1)(e)1., F.A.C.;

c. If the emissions differ from the preconstruction projection, an explanation as to why there is a difference; and

d. Any other information that the owner or operator wishes to include in the report.

3. The information required to be documented and maintained pursuant to subparagraphs 62-212.300(1)(e)1. and 2., F.A.C., shall be submitted to the Department, which shall make it available for review to the general public.

Projected actual emissions after exclusion of that portion of the emissions following the project that Units 1, 2 and 3 could have accommodated during the consecutive 24-month period used to establish the baseline actual emissions and that are also unrelated to the particular project including any increased utilization due to product demand growth are 1,651 tons/year of NO_X, 18 tons/year of MWC-metals and 18 tons/year of PM.

[Rules 62-4.070 and 62-212.300(1)(e), F.A.C.

{Permitting Note: Although PM_{10} emissions (including condensable emissions) will be monitored in the future, there was no information upon which to determine baseline PM_{10} emissions (including condensable emissions). Future demonstrations that there is not a significant increase in filterable PM emissions and compliance with the $PM_{2.5}$ BACT emission standard are sufficient to demonstrate that there has been no significant increase in PM_{10} emissions (including condensable PM_{10} emissions).}

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