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Golder Associates

October 1, 2005

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BUREAU OF AIR REGULATION

Mr. A. A. Linero, P.E.
Florida Department of Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road, MS #5500
Tallahassee, Florida 32399-2400

RE: DRAFT AIR CONSTRUCTION PERMIT NO. 0250348-006-AC
DRAFT TITLE V AIR OPERATION PERMIT RENEWAL NO. 0250348-007-AV
MIAMI-DADE COUNTY RESOURCE RECOVERY FACILITY

Dear Mr. Linero:

In response to your letter dated July 12, 2005, to Hank Green at the Miami-Dade County Resources Recovery Facility (MDCRRF), regarding the Title V renewal application, we are providing the following information:

- Compliance Plan – Montenay and MDCRRF continue to have discussions concerning the revision of the CO standard for the facility by EPA and the resolution of the previous exceedances of the CO limit. A proposed Consent order has been issued by FDEP. Other compliance issues are also being addressed in the Consent order. The Compliance Plan has been updated to reflect these developments, and is attached (Attachment No. 1). Also attached is a marked up version of the proposed Consent Order indicating Montenay's proposed changes (Attachment No. 2).

- Warm-up period Data – See Attachment No. 3 for a discussion of warm-up and startup period conditions and data.

- CAM Exemption Justification Data – Each item of FDEP's comments are responded to below.

  - Enclosed in Attachment No. 4 are the requested references. For Table 4-4, the document is apparently not available on the EPA transfer technology network (TTN), so the hard copy is all we have available, which is of rather poor quality. Also note that the reference to AP-42 13.2.4-3 is actually the page number from AP-42.

  - Presented in Table A of the June 2005 submittal is a comparison of the MDCRRF permit limits to the Subpart Cb limits. As shown, different, more stringent permit limits exist for PM/PM_{10}. Therefore, PM/PM_{10} is potentially subject to CAM for Units 1 through 4 at MDCRRF. However, MDCRRF is proposing to revise the permit limit for PM/PM_{10} to reflect the Subpart Cb limit of 0.0118 gr/dscf @ 7% O_2. The current limit for MDCRRF is 0.011 gr/dscf @ 7% O_2, so the proposed change is insignificant. Although proposing to revise the PM/PM_{10} grain loading limit to be consistent with Subpart Cb, MDCRRF is electing to retain the annual PM/PM_{10} emission limit for each unit of 29.0 TPY. If the proposed change is approved, CAM for PM/PM_{10} will not apply since the MDCRRF permit limit for PM/PM_{10} will then be consistent with Subpart Cb. The revised CAM applicability tables are presented in Attachment No. 5.

- Based on the references in Attachment No. 4, uncontrolled emissions were recalculated for sulfuric acid mist (SAM) and beryllium (Be). For SAM, a more appropriate emission factor was obtained from the publication *Locating and Estimating Air Toxics Emissions From Municipal Waste Combustors*. This reference provided an uncontrolled emission factor for SO_3, which was then converted to SAM by applying the ratio of the molecular weights of SAM to SO_3. The resulting uncontrolled SAM emission rate of 21.73 TPY per unit is nearly the same as previously calculated. Since SAM is not a hazardous air pollutant (HAP), the Title V major source threshold is 100 TPY. Therefore, SAM is not subject to CAM.

  Also, uncontrolled emissions of beryllium (Be) were corrected to revise a calculation error in the previous CAM tables. The previous tables (July 2005) showed Be emissions too high by a factor of one million. As shown, the revised uncontrolled emissions of Be (0.000057 TPY) are much less than the major source threshold of 10 TPY for a HAP. It is noted that actual emissions of Be from the MDCRRF units have been measured at less than detectable levels.

  Uncontrolled emissions of Pb (23.77 TPY per unit) exceed the major source threshold for Pb of 5 TPY. Therefore, Pb is potentially subject to CAM for Units 1 through 4 at MDCRRF. However, MDCRRF is proposing to revise the permit limit for Pb to reflect the Subpart Cb concentration limit of 440 µg/dscm @ 7% O_2. The current limit for MDCRRF is 380 µg/dscm @ 7% O_2. Although proposing to revise the Pb limit to be consistent with Subpart Cb, MDCRRf is electing to retain the annual Be emission limit for each unit of 0.44 TPY. If the proposed change is approved, CAM for PM/PM_{10} will not apply since the MDCRRF permit limit for Pb will then be consistent with Subpart Cb.

Revised CAM applicability tables are attached (Attachment No. 5), reflecting these updates. Also attached are application form pages and Attachment MIC-EU1-F8 which reflect the proposed changes in emission limits (Attachment No. 6).

- Testing & Reporting – Because we agree with FDEP's clarification, which states "It does not mean that the observation period must consist entirely of the highest opacity that will occur", MDCRRF withdraws the previous request to change Specific Conditions D.14., E.7., and F.11.

Montenay/MDCRRF may wish to request one additional change to the Title V permit, regarding the definition of biomass fuel. This request is included as Attachment No. 7.

Please contact us if there are questions regarding this submittal or if additional data is needed.

Sincerely,

GOLDER ASSOCIATES INC.

David A. Buff

David A, Buff, P.E., Q.E.P.
Principal Engineer

DB/nav/bm

Cc: A. Lue, Montenay
T. Morello, Montenay
G. Aleman, Montenay
Lee Casey, Dade County Department of Solid Waste Management

ATTACHMENT #1

REVISED COMPLIANCE PLAN

ATTACHMENT MIC-FI-CV3a

REVISED COMPLIANCE REPORT AND PLAN FOR MIAMI-DADE COUNTY RESOURCES RECOVERY FACILITY

October 13, 2005

A Compliance Report and Plan ("Plan") for the Miami-Dade County Resources Recovery Facility ("Facility") was included in the Title V permit modification request submitted to the Florida Department of Environmental Protection ("FDEP") in April 2005. The Plan was revised in June 2005. The Plan is now being revised and updated again with this submittal. As revised, the Plan contains the current information about the Facility's carbon monoxide ("CO") emissions, the 2004 stack tests for dioxin/furans, and other compliance issues that have not yet been resolved with the FDEP. This Plan does not address any deviations at the Facility that previously were reported to the FDEP and resolved.

1. Carbon Monoxide Emissions (Emission Units 001, 002, 003, and 004)

Deviations from Applicable Requirements

On January 11, 2005, the FDEP issued a Warning Letter (WL05-0001AS13SED) concerning the Facility's CO emissions in 2002, 2003 and 2004. In the letter and during subsequent meetings, the FDEP alleged that Facility may not be in compliance with the requirements contained in 40 CFR 60.11(d) and the Facility's Title V air operation permit (Specific Condition B.43). In addition, the CO emissions from Unit 2 exceeded the applicable 24-hour emission limit (200 ppmdv @ 7% O2) on April 13, 2005. The incident was reported to the FDEP. The CO emissions subsequently were reduced to the permitted limit, as demonstrated by the Facility's continuous monitoring data. The Facility has now received a proposed Consent order from the FDEP, dated September, 2005, which addresses these compliance issues.

Compliance Plan

The County has spent more than $63,000,000 for air pollution control systems and other improvements that were designed to enable the Facility to comply with the emissions limitations contained in 40 CFR 60, Subpart Cb, including the CO limits, which are also contained in Specific Condition B.36 of the Title V permit.

Nonetheless, the Facility's emissions sometimes exceed the 24-hour emission limit for CO in Subpart Cb. These exceedances are caused by the Facility's unique design. It is not feasible for the Facility to eliminate all such exceedances.

For these reasons, the County and Montenay have requested EPA to revise Subpart Cb and thereby increase the daily CO emissions limit for the Facility to 244 ppmvd (7% 0_2), based on a 24-hour geometric average. This request is currently being considered by EPA. The EPA is expected to announce its decision later this year, as part of EPA's periodic review of Subpart Cb pursuant to Section 129(a)(5) of the Clean Air Act.

The County and Montenay will continue to work diligently with the EPA to establish a new CO emissions limit for the Facility. If EPA grants the request for relief, the Facility will comply with EPA's new emissions limit when it becomes final and effective.

If EPA does not grant the request for relief, the County and Montenay will prepare a plan that describes the corrective actions that will be taken to reduce the Facility's CO emissions. The corrective actions plan will be submitted to the FDEP within 90 days after EPA's decision to deny relief becomes final. The County and Montenay shall begin to implement the corrective actions plan within 30 days after it is approved by the FDEP.

This Compliance Plan is based on the following milestones:

Milestone 1 – EPA publishes notice of its proposed action concerning the CO emission limit for the Facility, as part of EPA's 5-year review of Subpart Cb pursuant to Section 129(a)(5) of the Clean Air Act;

Milestone 2 – EPA publishes notice of its final agency action concerning the CO emission limit for Facility;

Milestone 3(a) - If EPA grants the request to increase the CO limit for the Facility, the Facility will comply with the new limit when EPA's final decision is published in the Federal Register;

Milestone 3(b) - If EPA does not grant the request to increase the CO limit for the Facility, a corrective actions plan will be submitted to the FDEP within 90 days after EPA's decision becomes final; and

Milestone 4 - If EPA does not grant the request to increase the CO limit for the Facility, the Facility will begin to implement the corrective actions plan within 30 days after the plan is approved by the FDEP.

The County and Montenay also will address these compliance issues in a separate consent order with the FDEP.

2. **Dioxin-Furan Emissions (Emission Unit 001)**

Deviations from Applicable Requirements

Specific Condition B.34 of the Facility's Title V air operation permit (No. 0250348-005-AV) requires annual testing for dioxins and furans to demonstrate that the Facility's emissions are equal to or less than 30 ng/dscm. Stack tests were conducted in April 2005, but they did not demonstrate compliance with the emissions limit. This issue is addressed in the proposed Consent Order issued to the Facility in September 2005 by FDEP.

Compliance Plan

According to the proposed Consent Order, Unit #1 will be tested quarterly beginning with the first quarter after the Consent Order is signed. Testing will continue for at least three quarters. Once the unit demonstrates compliance with all three individual test runs below the emissions limit of the permit for three consecutive quarters, the test frequency will revert back to that in the Title V permit.

3. **Visible Emissions**

Deviations from Applicable Requirements

Specific Condition B.25 of the Facility's Title V air operation permit (No. 0250348-005-AV) limits visible emissions of the Units to 10 percent opacity based on a six-minute block average. Between August 23, 2004 and October 19, 2004, the emissions from Unit 2 exceeded the 10% limit for opacity on several occasions. Repairs were made to the air pollution control device on Unit 2 to reduce the opacity

emissions and restore compliance. This issue is addressed in the proposed Consent Order issued to the Facility in September 2005 by FDEP.

Compliance Plan

According to the proposed Consent Order, the Facility will prepare a Visible Emissions Reduction Plan that identifies the preventative measures the Facility will take to minimize opacity excursions. As a minimum, the Plan must identify operating parameters and action levels that will be monitored for purposes of reducing opacity excursions, and identify operating procedures to be implemented when an operating parameter approaches an identified action level. The Plan must be submitted to the FDEP within 30 days of the effective date of the Consent Order.

4. Other Deviations

Deviations from Applicable Requirements

There have been deviations at the Facility that will be addressed in a consent order with the FDEP, including the deviations discussed in Sections 1 and 2, above. The following deviations have been corrected already or they will be resolved in the near future in the Consent Order:

1. The Statement of Compliance for 2003 neglected to identify all of the prior items of non-compliance. This issue was described in an FDEP Warning Letter (WL04-003AS13SED) dated December 30, 2004. The Statement of Compliance for 2004 also did not identify all of the prior items of non-compliance.
2. The 2003 stack tests indicated that the emissions from Unit 1 exceeded the applicable limits for hydrogen chloride and dioxin/furan, as described in the FDEP's Warning Letter (WL04-0018AS13SED) dated October 19, 2004. Since these test results were adversely affected by a malfunction of the lime slurry system for Unit 1, the lime slurry system for Unit 1was repaired and Unit 1 was retested. The new tests demonstrated compliance with the applicable emission limits.
3. During an inspection of the Facility on November 21, 2003, the FDEP observed a hole above a viewport and a recently repaired breach in the waterwall of Unit 3. These issues were described in FDEP's Warning Letter (WL04-0007AS13SED) dated February, 24,

2004. In its letter, the FDEP alleged that the emissions from Unit 3 had circumvented the Facility's air pollution control devices. The hole subsequently was repaired and, as noted in the Warning Letter, the breach was repaired before the FDEP inspection.

6. During the 2004 stack tests for Unit 1, four test runs were conducted for dioxin. One test sample was broken during shipping and a malfunction adversely affected another sample. Consequently, the Facility did not complete three valid test runs within a consecutive 5-day period, as required by Specific Condition B.69, and did not complete its 2004 tests on time. Since the tests were not completed in a timely manner, stack tests for dioxin were conducted in 2005.

7. During the 2004 stack tests for Unit 4, the results from the first run for dioxin were adversely affected by a malfunction, but the FDEP was not given timely notice of the malfunction. Notice subsequently was provided, but it was not timely.

Compliance Plan

The Facility and the FDEP are addressing all of these issues in the proposed Consent Order. The Facility already has completed its corrective actions concerning these deviations.

ATTACHMENT #2

MONTENAY/DCRRF PROPOSED CHANGES TO CONSENT ORDER

BEFORE THE STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION, Complainant, vs. MONTENAY POWER CORP., Respondent.	)	IN THE OFFICE OF THE SOUTHEAST DISTRICT OGC FILE NO. 05-1530

CONSENT ORDER

This Consent Order is entered into between the State of Florida Department of Environmental Protection ("Department") and Montenay Power Corp. ("Respondent"), to reach settlement of certain matters at issue between the Department and Respondent.

The Department finds and the Respondent neither admits nor denies the following:

1. The Department is the administrative agency of the State of Florida having the power and duty to protect Florida's air and water resources and to administer and enforce the provisions of Chapter 403, Florida Statutes ("F.S."), and the rules promulgated thereunder, which are codified in Title 62, Florida Administrative Code ("F.A.C."). The Department has jurisdiction over the matters addressed in this Consent Order.

2. The Department of Solid Waste Management is a branch of the county government in Miami-Dade County ("County"). The County owns the Miami-Dade County Resources Recovery Facility ("Facility"), which is located at 6990 NW 97th Avenue in Miami-Dade County, Florida, Latitude 25° 50' 06" North and Longitude 80° 21' 30" West. The Respondent operates the Facility for the County.

3. The Respondent is a "person", as defined in Section 403.031(5), F.S.

4. The Facility burns the County's municipal solid waste and generates electricity. The Facility's four emissions units ("Units 1-4") are subject to the requirements for "municipal waste combustors" promulgated by the U.S. Environmental Protection Agency ("EPA") in 40

CFR 60, Subpart Cb [adopted by the Department in Rule 62-204.800(9)(b), F.A.C.]. Respondent currently operates the Facility under Title V Air Operation Permit No. 0250348-005-AV ("Permit") issued October 2, 2000 and revised on August 12, 2001, which incorporates the applicable provisions of 40 C.F.R. Part 60, Subpart Cb.

5. The Department monitors the Facility for compliance with the Permit. Based on information provided by the Respondent through the annual statement of compliance, annual compliance tests and data from the continuous emissions monitoring systems ("CEMS"), and from physical inspections of the Facility, the Department has identified the following violations:

(a) Carbon Monoxide ("CO") Emissions. Specific Condition B.36 of the Permit limits CO emissions to 200 parts per million by volume, measured at the combustor outlet in conjunction with a measurement of oxygen ("O_2") concentration, corrected to 7 percent O_2, dry basis ("ppmvd @ 7% O_2"), 24-hour daily arithmetic average~~ ("ppmvd @ 7% O_2");~~, and 267.7 tons per year ("TPY").

(i) During calendar years 2002, 2003 and 2004, ~~excess~~ the CO emissions from each emissions unit at the Facility exceeded the 200 ppmvd limit ~~levels greater than 10%~~ at various times ~~of the operation time~~ in each quarter of those calendar years. Based on guidance provided by the United States Environmental Protection Agency ("EPA"), the Department issued Warning Letter WL05-0001AS13SED on January 11, 2005 as a result. In response to the excess emissions issue, the Respondent has requested the EPA to revise the applicable emissions limiting standard for CO in ~~of~~ 40 Code of Federal Regulations 60~~.~~, Subpart Cb~~34b(a)11(d)~~. The EPA has informally advised the Department that EPA intends to revise the applicable CO standard.

(ii) On April 13, 2005, the Facility's CEMS for CO recorded an actual daily level of 425.6 ppmvd @ 7% O_2, which is above the emissions limiting standard. The issues associated

with the CO emissions exceedance were discussed during an ~~the~~ April 26, 2005 meeting at the Department's District Office in West Palm Beach.

(b) Dioxins/Furans Emissions. Specific Condition B.34 of the Permit limits dioxins/furans emissions to 30 nanograms per dry standard cubic meter (total mass of tetra- through octa-chlorinated dibenzo-p-dioxins and dibenzofurans) corrected to 7 percent oxygen ("ng/dscm @ 7% O_2"),~~;~~ and 0.000038 TPY. Specific Condition B.61(5)(i) establishes a test frequency of no more than 12 months between performance tests, except under certain circumstances that are not applicable here.

(i) Stack testing on Unit #1 conducted between December 14 and 18, 2003, in accordance with the Reference Methods, resulted in measured dioxins/furans emissions of 38~~5~~.58 ng/dscm @ 7% O_2, which is above the emissions limiting standard. The unit was re-tested on April 10, 2004 and demonstrated compliance with the emissions limiting standard. The Department issued Warning Letter WL04-0018AS13SED on October 19, 2004 as a result of the test failure.

(ii) Stack testing on Unit #1 was conducted in December 2004 but was not completed in accordance with the Reference Methods and Specific Condition B.69 of the Permit. As a result, Unit #1 was not tested within 12 months of April 10, 2004, the time period for re-testing, which is a violation of the test frequency requirements of Specific Condition B.61.

(iii) Stack testing on Unit #4 was conducted between December 12 and 24, 2004 in accordance with the Reference Methods and included four (4) test runs versus the required three (3). During the first run, the Facility alleges a malfunction occurred that resulted in emissions above the emissions limiting standard. Because of the malfunction, the Facility voided the results of Run 1 and averaged Runs 2, 3 and 4 to demonstrate compliance. The Department reviewed its records

and determined that the Facility failed to report the operational problem as required by Conditions 9 and 10 of Appendix TV-3, Title V Conditions (Version dated 04/03/99) of the Permit.

(iv) Stack testing on Unit #1 conducted between April 15 and 17, 2005, in accordance with the Reference Methods, resulted in measured dioxins/furans emissions of 161.31 ng/dscm @ 7% O_2, which is a violation of the emissions limiting standard. Unit #1 was re-tested, following maintenance and repairs on Unit # 1, on May 23 and 24, 2005, and demonstrated compliance with emissions of 29.83 ng/dscm @7% O_2.

(c) Hydrogen Chloride ("HCL") Emissions. Specific Condition B.33 of the Permit limits HCL emissions to 25 ~~parts per million by volume corrected to 7 percent O_2~~ ppmvd @7% O_2,~~;~~ or 5% of the potential HCL emission concentration, whichever is less stringent,~~;~~ and 57.1 TPY. Stack testing on Unit #1 conducted between December 14 and 16, 2003, in accordance with the Reference Methods, resulted in measured HCL emissions of 31.73 ppmvd @ 7% O_2, which is above the emissions limiting standard. The Department issued Warning Letter WL04-0018AS13SED on October 19, 2004 as a result of the test failure.

(d) Visible Emissions. Specific Condition B.25 of the Permit limits visible emissions to 10 percent opacity on a 6-minute block average. Based on the continuous opacity monitoring system ("COMS"), the following seven (7) violations were recorded for Unit #2:

(i) August 23, 2004, a 6-minute block average of 11.5%.

(ii) September 9, 2004, two 6-minute block averages of 11.22% and 11.90%.

(iii) September 12, 2004, a 6-minute block average of 13.34%.

(iv) October 19, 2004, three 6-minute block averages of 11.07%, 16.21% and 12.04%.

The Respondent reported the excursions within its quarterly excess emissions report as required by the P~~p~~ermit.

(e) Annual Statement of Compliance. Specific Condition 12 and Condition 51 of Appendix TV-3, Title V Conditions (Version dated 04/03/99) of the Permit requires the Facility to submit an annual Statement of Compliance ("SOC"). The annual SOC is reported on DEP Form 62-213.900(7) and requires the reporting of all deviations and noncompliance issues. The 2003 and 2004 SOC reports were both submitted timely as required by Specific Condition 12 of the Permit. The Department's review of the SOC reports noted that the Facility failed to identify all permit deviations and noncompliance issues as required. The Department issued Warning Letter WL04-0033AS13SED on January 3, 2005 for the 2003 SOC and the issues associated with the 2004 SOC were discussed during the April 26, 2005 meeting at the Department's District Office in West Palm Beach.

(f) Improper Maintenance & Operation. Condition 12(6) of Appendix TV-3, Title V Conditions (Version dated 04/03/99) of the Permit requires proper maintenance of the facility. On February 24, 2004, the Department issued Warning Letter WL04-0007AS13SED for a hole above the viewport and a breach in the waterwall for Unit 3 that allowed some exhaust gases to vent uncontrolled to the atmosphere. The warning letter was a result of a Department inspection conducted on November 21, 2003.

6. Having reached a mutually satisfactory resolution of the disputed issues in this case, the Department and the Respondent agree and it is hereby

ORDERED:

7. Subject to the provisions set forth herein for in-kind projects and pollution prevention projects, Respondent shall pay the Department a civil penalty of one hundred thirteen thousand six hundred dollars ($113,600) in settlement of the matters addressed in this Consent Order. Respondent shall pay the civil penalty in accordance with the procedures described in

paragraph 9, below, within 30 days after the Department executes this Consent Order, unless the Respondent provides notification of its intent to pursue a pollution prevention project or in-kind project.

8. Respondent also shall pay eight thousand nine hundred fifty dollars ($8,950) to the Department for the Department's costs and expenses in this case. Respondent shall pay the Department's costs and expenses in accordance with the procedures described in paragraph 9, below, within 30 days after the Department executes this Consent Order, even if the Respondent elects to pursue a pollution prevention project or in-kind project.

9. Payment of the civil penalty and the costs and expenses shall be made by cashier's check or money order. The instrument shall be made payable to the Department of Environmental Protection and shall include thereon the OGC number assigned to this Consent Order (OGC No. 05-1530) and the notation "Ecosystem Management and Restoration Trust Fund." The payment shall be sent to the Director of District Management at the Florida Department of Environmental Protection, 400 North Congress Avenue, Suite 200, West Palm Beach, Florida 33401.

10. In lieu of paying the civil penalty pursuant to paragraph 7, above, Respondent may elect to off-set the amount of the civil penalty by implementing a pollution prevention project that has been approved by the Department. A pollution prevention project must be either a source reduction, waste minimization, or on-site recycling project. If Respondent chooses to implement a pollution prevention project, Respondent shall notify the Department of its election by certified mail within 30 days of the effective date of this Consent Order.

11. If Respondent elects to implement a pollution prevention project as provided in paragraph 10, Respondent shall comply with the following time frames and specifications:

(a) Within 60 days of the effective date of this Consent Order, the Respondent shall submit to the Department for review and approval a Waste Audit Report for the

Facility. The Waste Audit Report shall include all of the information called for in the document entitled "Components of a Waste Audit Report", which is attached hereto as Exhibit A. Prior to the submittal required in Paragraph 11(b), below, Respondent may consult with the Department and solicit comments concerning Respondent's draft Waste Audit Report. Such consultation shall not affect the requirement to submit a Waste Audit Report within 60 days of the effective date of this Consent Order.

(b) If the Waste Audit Report is not approved by the Department, the Respondent shall have 45 days to resubmit after notification by the Department that the Report is not acceptable. If the Waste Audit Report is not approved after one re-submittal, the Respondent shall pay the civil penalty described in paragraph 7, above, by following the procedures described in paragraph 9, above, within 30 days of receiving written demand by the Department.

(c) If the Waste Audit Report is approved by the Department, Respondent shall develop a detailed Pollution Prevention Project Plan ("Project Plan"), based on the approved Waste Audit Report. The Project Plan shall include all of the information called for in the document entitled "Components of a P2 Project Plan", which is attached hereto as Exhibit B. The Respondent shall submit the Project Plan to the Department for review and approval within 60 days of the Department's approval of the Waste Audit Report.

(d) If the Project Plan is not approved by the Department, the Respondent shall have 45 days to resubmit after receiving notification by the Department that the Project Plan is not acceptable. If the Project Plan is not approved after re-submittal, the Respondent shall pay the civil penalty described in paragraph 7, above, by following the procedures described in paragraph 9, above, within 30 days of receiving written demand by the Department.

(e) Respondent shall begin implementation of the Project Plan within 30 days of notification by the Department that the Project Plan has been approved.

(f) Respondent shall submit quarterly progress reports to the Department. The first report is due 90 days after receiving notification by the Department that the Project Plan has been approved. Each report shall provide a statement of the progress that has been achieved with the implementation of the Project Plan as of the date of the report. A list of equipment ordered and/or purchased and/or installed shall also be included, if applicable.

(g) Respondent shall complete the project(s) described in the approved Project Plan within the time frames approved therein, and submit to the Department a Final Report detailing the implementation of the Project Plan. The Final Report shall be submitted within 60 days of the project's completion and shall include:

1. all of the information called for in Section III (Environmental Benefits) of the document entitled "Components of a P2 Project Plan" (Exhibit B to this Consent Order);
2. a description of the methods used to quantify wastes; and
3. an expense report, including the receipts and other documents itemizing the costs expended on implementing the project, pursuant to paragraph 11(i), below.

(h) The Department shall review the Final Report submitted in accordance with paragraph (g) above and determine:

1. whether the project has been implemented in accordance with the approved Project Plan; and
2. which expenses apply toward pollution prevention credits.

(i) If the Project Plan is approved by the Department and implemented according to paragraphs 11(a) through 11(g), above, a one dollar ($1) credit for each dollar spent on applicable costs will be applied against the civil penalty amount.

1. The following costs will apply toward Pollution Prevention credits:
   a. preparation of a Pollution Prevention Project Plan
   b. design of the project(s)
   c. installation of equipment for the project(s)
   d. construction of the project(s)
   e. testing of the project(s)
   f. training of staff concerning the implementation of the project(s)
   g. capital equipment needed for the project(s)
2. The following costs will not apply toward Pollution Prevention credits:
   a. costs incurred in conducting a waste audit
   b. maintenance and operation costs involved in implementing the project(s)
   c. monitoring and reporting costs
   d. salaries of employees who perform their regular job duties
   e. costs expended to bring the facility into compliance with current law
   f. costs associated with a project that has not been approved by the Department

(j) If any balance remains after the pollution prevention credits are applied, the balance of the civil penalty shall be paid within 30 days of notification by the Department to the Respondent that the balance is due and owing.

(k) The Department may terminate the Pollution Prevention Project at any time during the development or implementation of the project if the Respondent fails to comply in good faith with the above requirements for developing and implementing the Project Plan in a timely manner.

(l) The Respondent may terminate the Pollution Prevention Project at any time during its development or implementation.

(m) If the Pollution Prevention Project is terminated, the full amount of the civil penalty shall be paid in the manner described in paragraph 9, above, within 30 days of notification of termination by the Department to the Respondent. If the project is terminated and the full amount of the civil penalty is timely paid, no additional penalties shall be assessed under this Consent Order for the Respondent's failure to complete the requirements of this paragraph 11.

12. In lieu of making a cash payment of the civil penalty described in paragraph 7, above, Respondent may elect to off-set the amount of the civil penalty by implementing an in-kind penalty project approved by the Department. An in-kind project must be either an environmental enhancement, environmental restoration or a capital/facility improvement project. The Department may also consider the donation of environmentally sensitive land as an in-kind project. The value of the in-kind penalty project shall be at least one and one-half (1½) times the civil penalty, which in this case is the equivalent of $170,400. If Respondent chooses to implement an in-kind project, Respondent shall notify the Department of its election by certified mail within 30 days of the effective date of this Consent Order.

13. If Respondent elects to implement an in-kind penalty project, Respondent shall comply with the following timeframes and specifications:

(a) Within 60 days of the effective date of this Consent Order, Respondent shall submit, by certified mail, a detailed in-kind project proposal to the Department for evaluation. The proposal shall include a summary of the project benefits, a proposed schedule for implementation of the project, and an estimate of the costs that will be incurred to complete the project. The estimated costs shall not include those incurred in developing the proposal or obtaining approval from the Department for the in-kind project.

(b) If the Department requests additional information or clarification due to an incomplete proposal, or requests modifications due to deficiencies in the proposal, Respondent shall submit, by certified mail, all requested additional information, clarifications, and modifications within 30 days of receipt of written notice.

(c) Upon review of the in-kind project proposal, if the Department determines that the project cannot be accepted due to a substantially incomplete proposal or due to substantial deficiencies with minimum Department guidelines, Respondent shall be notified in writing of the reason(s) which prevent the acceptance of the proposal. Respondent shall correct and redress all of the matters at issue and submit, by certified mail, a new proposal within 30 days of receipt of written notice. If the revised proposal is not approved by the Department, Respondent shall pay the civil penalty in the manner described in paragraph 9, above, within 30 days of receiving the Department's notice.

(d) Respondent shall complete the entire in-kind project within 180 days of obtaining the Department's approval for the in-kind proposal or within the time frames contained in the approved schedule established pursuant to paragraph 13(a), above, whichever is later.

(e) During the implementation of the in-kind project, Respondent shall place appropriate sign(s) at the project site indicating that Respondent's involvement with the project is the result of a Department enforcement action. Respondent may remove the sign(s) after the project has been completed. However, after the project has been completed, Respondent shall not post any sign(s) at the site indicating that the reason for the project was anything other than a Department enforcement action.

(f) If Respondent fails to timely submit any requested information to the Department pursuant to the requirements in this paragraph 13, or fails to complete the implementation of the in-kind project, or otherwise fails to comply with any material provision of this paragraph, the in-kind penalty payment option shall be forfeited and the entire amount of the civil penalty in paragraph 7, above, shall be due from the Respondent within 30 days of receiving the Department's written demand for payment. If the in-kind penalty project is terminated and Respondent timely remits the full amount of the civil penalty, no additional penalties shall be assessed under this Consent Order for the Respondent's failure to complete the requirement of this paragraph 13.

(g) Within 15 days of completing the in-kind project, Respondent shall notify the Department, by certified mail, of the project completion and request a verification letter from the Department. Respondent shall submit supporting information verifying that the project was completed in accordance with the approved proposal and documentation showing the actual costs incurred to complete the project. These costs shall not include the costs incurred in developing the proposal or obtaining approval from the Department for the project.

(h) Upon review of the notification of completion, if the Department determines that the project cannot be accepted due to a substantially incomplete notification of completion or due to substantial deviations from the approved in-kind

project, Respondent shall be notified in writing of the reason(s) which prevent the acceptance of the project. Respondent shall correct and redress all of the matters at issue and submit, by certified mail, a new notification of completion within 30 days of receipt of the Department's written notice. Upon review of the new submittal, if the Department determines that the in-kind project is still incomplete or not in substantial compliance with the approved proposal, the in-kind penalty payment option shall be forfeited and the entire amount of the civil penalty shall be due from the Respondent to the Department within 30 days after the Respondent receives the Department's written demand for payment. If the in-kind penalty project is terminated and Respondent timely remits the full amount of the civil penalty to the Department, no additional penalties shall be assessed under this Consent Order for the Respondent's failure to complete the requirements of this paragraph 13.

14. The Respondent shall prepare a Visible Emissions Reduction Plan (Plan) that identifies the preventative measures the Respondent will under take to minimize opacity excursions. As a minimum, the Plan shall:

(a) Identify operating parameters (e.g., opacity, pressure drop, etc.) and action levels that will be monitored for purposes of reducing opacity excursions.

(b) Identify the operating procedures to be implemented when an operating parameter approaches an identified action level.

The Plan shall be submitted to the Department within 30 days of the effective date of this Consent Order. The Respondent shall implement and comply with the plan within 30 days after receiving the Department's written approval of the plan. The Plan shall remain enforceable under this Consent Order until it is incorporated ~~in the individual Continuous Assurance Monitoring plan for each emissions unit (Units 1 through 4)~~ within the renewed Title V Permit.

15. The Respondent shall initiate special compliance testing under Condition B.74 (b) of the Permit (Rule 62-297.310(7)(b), F.A.C.) for dioxins/furans emissions from Unit #1. The special compliance testing shall be conducted in accordance with the Permit. The test frequency shall be quarterly, beginning the first complete quarter following the effective date of this Consent Order (i.e., the first quarter of calendar year 2006). ~~Once the unit demonstrates compliance with all three individual test runs below the emissions limiting standard of the Permit for 3 consecutive quarters, t~~The test frequency for the unit will revert back to the frequency specified in the Permit when: (a) the unit demonstrates compliance with the emission limiting standard in the Permit for three consecutive quarters; or (b) the unit demonstrates compliance with the emission limiting standard in the Permit for two consecutive quarters and during those two quarters (i) all of the individual test runs for the unit comply with the emission limiting standard in the Permit or (ii) the average of all of the individual test runs for the unit is 80% or less of the emission limiting standard in the Permit.

16. If the Respondent elects to do a Pollution Prevention Project or an in-kind penalty project as allowed by paragraphs 10 and 12, above, projects that may be performed by Respondent may include, but are not limited to, the following:

(a) Increasing surveillance activities within the materials handling operations.

(b) Installation of fuel plug sensors.

(c) Installation of additional cameras in the materials handling area.

(d) Upgrading control room monitors and equipment.

(e) Installation of flow monitors on the lime/carbon injection system.

(f) Installation of a back-up lime/carbon injection system pump.

17. In consideration of and in exchange for the Respondent's agreement to (a) either make payment of the civil penalty identified in paragraph 7 or undertake a Pollution Prevention Project or in-kind penalty project in compliance with the requirements contained in paragraphs

10, 11, 12, and 13 of this Consent Order, as applicable, (b) pay the Department's costs and expenses in compliance with the requirements in paragraph 8 of this Consent Order, (c) implement the corrective actions identified in paragraphs 11, 12, 13, 14, and 15 and 16 of this Consent Order and (de) adhere to the other requirements set forth in this Consent Order, the Department hereby waives its right to sue the Respondent for the alleged violations specifically identified by this Consent Order. The Department does not waive any rights to seek corrective actions or penalties for violations not specifically addressed within this order. This waiver is conditioned upon the Respondent's complete compliance with all of the terms of this Consent Order. If the Respondent fails to comply with any of the terms of this Consent Order, the conditions of the waiver will not have been met and the waiver will not become effective. The Respondent agrees that it will not assert any claims of waiver and/or estoppel against the Department in the event the Respondent fails to comply with any requirement of this Consent Order and the Department, as a result thereof, elects to pursue the Respondent for corrective actions or civil penalties as a result of the Respondent's non-compliance with the terms of this Consent Order. The Respondent acknowledges and agrees that this paragraph 17 shall not be construed to waive the Department's right to initiate any other legal action authorized by law for violations not specifically identified by this Consent Order.

18. At its discretion, the Department may grant an extension of any deadline contained in this Consent Order.

19. Persons who are not parties to this Consent Order, but whose substantial interests are affected by this Consent Order, have a right, pursuant to Sections 120.569 and 120.57, Florida Statutes, to petition for an administrative hearing on it. The petition must contain the information set forth below and must be filed (received) at the Department's Office of General Counsel, 3900 Commonwealth Boulevard, MS# 35, Tallahassee, Florida 32399-3000 within 21 days of receipt of this notice. A copy of the petition must also be mailed at the time of filing to

the District Office named above at the address indicated. Failure to file a petition within the 21 days constitutes a waiver of any right such person has to an administrative hearing pursuant to Sections 120.569 and 120.57, Florida Statutes.

The petition shall contain the following information:

(a) The name, address, and telephone number of each petitioner; the Department's Consent Order identification number and the county in which the subject matter or activity is located;

(b) A statement of how and when each petitioner received notice of the Consent Order;

(c) A statement of how each petitioner's substantial interests are affected by the Consent Order;

(d) A statement of the material facts disputed by petitioner, if any;

(e) A statement of facts which petitioner contends warrant reversal or modification of the Consent Order;

(f) A statement of which rules or statutes petitioner contends require reversal or modification of the Consent Order;

(g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Consent Order.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the subject Consent Order have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 21 days of receipt of this notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver

of any right such person has to request a hearing under Sections 120.569 and 120.57, Florida Statutes, and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-106.205, Florida Administrative Code.

A person whose substantial interests are affected by the Consent Order may file a timely petition for an administrative hearing under Sections 120.569 and 120.57, Florida Statutes, or may choose to pursue mediation as an alternative remedy under Section 120.573, Florida Statutes, before the deadline for filing a petition. Choosing mediation will not adversely affect the right to a hearing if mediation does not result in a settlement. The procedures for pursuing mediation are set forth below.

Mediation may only take place if the Department and all the parties to the proceeding agree that mediation is appropriate. A person may pursue mediation by reaching a mediation agreement with all parties to the proceeding (which include the Respondent, the Department, and any person who has filed a timely and sufficient petition for a hearing) and by showing how the substantial interests of each mediating party are affected by the Consent Order. The agreement must be filed in (received by) the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, MS #35, Tallahassee, Florida 32399-3000, within 10 days after the deadline as set forth above for the filing of a petition.

The agreement to mediate must include the following:

(a) The names, addresses, and telephone numbers of any persons who may attend the mediation;

(b) The name, address, and telephone number of the mediator selected by the parties, or a provision for selecting a mediator within a specified time;

(c) The agreed allocation of the costs and fees associated with the mediation;

(d) The agreement of the parties on the confidentiality of discussions and documents introduced during mediation;

(e) The date, time, and place of the first mediation session, or a deadline for holding the first session, if no mediator has yet been chosen;

(f) The name of each party's representative who shall have authority to settle or recommend settlement; and

(g) Either an explanation of how the substantial interests of each mediating party will be affected by the action or proposed action addressed in this notice of intent or a statement clearly identifying the petition for hearing that each party has already filed, and incorporating it by reference.

(h) The signatures of all parties or their authorized representatives.

As provided in Section 120.573, Florida Statutes, the timely agreement of all parties to mediate will toll the time limitations imposed by Sections 120.569 and 120.57, Florida Statutes, for requesting and holding an administrative hearing. Unless otherwise agreed by the parties, the mediation must be concluded within sixty days of the execution of the agreement. If mediation results in settlement of the administrative dispute, the Department must enter a final order incorporating the agreement of the parties. Persons whose substantial interests will be affected by such a modified final decision of the Department have a right to petition for a hearing only in accordance with the requirements for such petitions set forth above, and must therefore file their petitions within 21 days of receipt of this notice. If mediation terminates without settlement of the dispute, the Department shall notify all parties in writing that the administrative hearing processes under Sections 120.569 and 120.57, Florida Statutes, remain available for disposition of the dispute, and the notice will specify the deadlines that then will apply for challenging the agency action and electing remedies under those two statutes.

20. In the event of a sale or conveyance of the Facility or of the property upon which the Facility is located, if all of the requirements of this Consent Order have not been fully satisfied, Respondent shall, at least 30 days prior to the sale or conveyance of the property or Facility, (a) notify the Department of such sale or conveyance, (b) provide the name and address of the purchaser, or operator, or person(s) in control of the Facility, and (c) provide a copy of this Consent Order with all attachments to the new owner. The sale or conveyance of the Facility, or the property upon which the Facility is located, shall not relieve the Respondent of the obligations imposed in this Consent Order.

21. Respondent shall allow all authorized representatives of the Department access to the property and Facility at reasonable times for the purpose of determining compliance with the terms of this Consent Order and the rules and statutes of the Department.

22. All submittals and payments required by this Consent Order to be submitted to the Department shall be sent to the Florida Department of Environmental Protection, 400 North Congress Avenue, Suite 200, West Palm Beach, Florida 33401.

23. This Consent Order is a settlement of the Department's civil and administrative authority arising under Florida law to resolve the matters addressed herein. This Consent Order is not a settlement of any criminal liabilities that may arise under Florida law, nor is it a settlement of any violation that may be prosecuted criminally or civilly under federal law.

24. The Department hereby expressly reserves the right to initiate appropriate legal action to prevent or prohibit any violations of applicable statutes, or the rules promulgated thereunder, that are not specifically addressed by the terms of this Consent Order.

25. The terms and conditions set forth in this Consent Order may be enforced in a court of competent jurisdiction pursuant to Sections 120.69 and 403.121, Florida Statutes. Failure to comply with the terms of this Consent Order shall constitute a violation of Section 403.161(1)(b), Florida Statutes.

26. Respondent is fully aware that a violation of the terms of this Consent Order may subject Respondent to the judicial imposition of damages, civil penalties up to $10,000 per day per violation, and criminal penalties.

27. Entry of this Consent Order does not relieve Respondent of the need to comply with applicable federal, state or local laws, regulations or ordinances.

28. No modifications of the terms of this Consent Order shall be effective until reduced to writing and executed by the Respondent and the Department.

29. Respondent acknowledges and waives its right to an administrative hearing pursuant to Sections 120.569 and 120.57, Florida Statutes, concerning the terms of this Consent Order. Respondent acknowledges its right to appeal the terms of this Consent Order pursuant to Section 120.68, Florida Statutes, and waive that right upon signing this Consent Order. The Respondent reserves and does not waive its right to contest any agency action in the future, including but not limited to any agency determination of whether the Respondent has complied with the requirements of this Consent Order.

30. The Department recognizes that the Respondent has entered into this Consent Order to avoid the delays and expenses associated with litigation concerning the issues addressed herein. Accordingly, the Department shall not construe the Respondent's execution of this Consent Order, or the Respondent's compliance with and implementation of the requirements in this Consent Order, as an admission by the Respondent of any guilt or liability for any violation alleged by the Department in this Consent Order.

31. The Respondent agrees to pay the Department stipulated penalties in the amount of $4,000 per day for each and every day Respondent fails to timely comply with the 24-hour CO emissions limit contained in Subpart Cb, excluding periods of startup, shutdown or malfunction. A separate stipulated penalty shall be assessed for each violation of the CO limit. Within 30 days after a violation of the 24-hour CO limit occurs, Respondent shall make

payment of the stipulated penalty to "The Department of Environmental Protection" by cashier's check or money order and shall include thereon the OGC number assigned to this Consent Order (No._____) and the notation "Ecosystem Management and Restoration Trust Fund." Payment shall be sent to the Director of District Management, Florida Department of Environmental Protection, 400 North Congress Avenue, Suite 200, West Palm Beach, Florida 33401. If a payment is not received in 30 days, the Department may make demand for the late payment at any time, and the amount of the late payment shall be $6,000 per violation, in lieu of the $4,000 for a timely payment. Nothing in this paragraph shall prevent the Department from filing suit to specifically enforce any terms of this Consent Order. Any penalties assessed under this paragraph shall be in addition to the civil penalty described in paragraph 7 of this Consent Order. If the Department is required to file a lawsuit to recover stipulated penalties under this paragraph, the Department will not be foreclosed from seeking civil penalties for violations of this Consent Order in an amount greater than the stipulated penalties due under this paragraph. The Respondent's obligation to pay stipulated penalties pursuant to this paragraph shall terminate when EPA grants the Respondent's request for relief from the current 24-hour CO limitation in Subpart Cb. After the new emission limit for CO becomes effective, the Respondent shall comply with and the Department shall enforce EPA's new emissions limit.

32. Following the completion of the activities required by this Consent Order, the Respondent may request the Department to confirm that the terms of this Consent Order have been satisfied. The Department shall review the Respondent's request and shall provide a written response. If the Department agrees that the Respondent has complied with the requirements contained herein, the Department shall notify the Respondent in writing that this Consent Order shall have no further force and effect.

33~~1~~. This Consent Order is a final order of the Department pursuant to Section 120.52(7), Florida Statutes, and it is final and effective on the date filed with the Clerk of the

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Department unless a Petition for Administrative Hearing is filed in accordance with Chapter 120, Florida Statutes. Upon the timely filing of a petition this Consent Order will not be effective until further order of the Department.

FOR THE RESPONDENT

_____ _____

Tom Morello~~Hank Green~~, ~~Facility~~Plant Manager Date
Montenay Power Corp.

FOR DEPARTMENT USE ONLY

DONE AND ENTERED this _____ day of _____, 2005 in West Palm Beach, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

_____

Kevin R. Neal Date
District Director
Southeast District

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

_____ _____

Clerk Date

Copies furnished to:
Larry Morgan, DEP OGC, Mail Station #35
Lee Casey, Chief Environmental Compliance Division, 2525 NW 62nd St., Miami, FL 33147
David S. Dee, Landers & Parsons, P.A., 310 W College Ave., Tallahassee, FL 32301

ATTACHMENT #3

WARM-UP / STARTUP DATA

Emissions During Start-up and shut-down - DCRRF

The permit application requested that FDEP amend the Title V permit to indicate how the facility is implementing EPA's definition of start-up and shutdown at the Dade plant. In response FDEP issued an incompleteness letter in April 2005 that asked for 5 years of emissions data during warm-up. In April 2005, Montenay informed FDEP that this data had not been collected previously and was not available. Montenay also began collecting sample data at the same time. The following information is based on this data collection and interviews with the facility operations staff:

Description of typical boiler start up –

- *Hot start-up*: The shortest boiler start-ups are usually due to fuel feeder pluggages, or other short term interruptions which cause the fuel feed to the unit to be stopped. These start-ups typically occur after less than 1 hour of downtime; therefore, the boiler temperature is still warm. During this startup, propane gas is typically fired in the boiler for an approximate maximum of 45 minutes before RDF is introduced[1]. And once RDF is introduced it typically takes less than 15 minutes before the fuel feed is stabilized, which is indicated by a steam flow of 70,000 lbs/hr. This practice is consistent with the permit which states that, "*the startup period commences when the affected facility begins the continuous burning of municipal solid waste and does not include a warm-up period when the affected facility is combusting fossil fuel or other non-municipal solid waste and no municipal solid waste is being fed to the combustor*". Below is an example of the emissions generated during such an event

Example 1 – Hot Start-up, Unit #2

Unit	Date	Time	Condition	Time period	Average Emissions (lbs/hr)[2]		
					CO	NOx	SO2
2	8/1/05	14:16[3]	Gas feed start	14:16 – 14:29	224.11	36.36	5.21
		14:30	Start RDF feed	14:30 – 14:44	235.58	28.8	9.98
		14:35	Unit back on line				

[1] The time for the start of RDF is approximate in this scenario because the operators are using boiler temperature and pressures to determine when to start feeding RDF. When the boiler attains a pressure of 600 psi, or the superheater outlet temperature reaches 550 degrees F, the boiler is deemed to be sufficiently prepared for the start of RDF feed.

[2] It should be noted that emissions are stated in lbs/hr for all start-up and shut-down scenarios. The reason for this is that since oxygen concentrations in the units are close to ambient during start-up conditions, corrected gas concentrations appear to be high while uncorrected values seem within the normal range. Gas flows are also unstable during start-up and shutdown conditions, therefore, concentrations are not representative of emissions that would result in impacts. For these reasons, gas concentrations should not be used during these unstable conditions and they are not included in the emissions data as authorized by the regulatory definitions of these conditions. The corresponding lbs/hr limits for the units are 267.7 tons/yr of carbon monoxide, 614.9 tons/yr for nitrogen oxides, and 214.2 tons/yr for sulfur dioxide.

[3] Time of gas feed start was estimated for steam flow data from the CEM as it was not noted in the Control Room Logbook.

- *Routine Cold start-up* : A cold-start up occurs after a long period (i.e. more that 12 hours) of the boiler being offline. Under these conditions propane is fired for approximately 4 hours to allow for the unit to heat up. This allows the metal to be heated at safe rate of approximately 100 degrees F per hour. This period can be extended beyond 4 hours if the boiler is waiting for the turbine generator on-line signal. (The maximum period during which propane would be used is discussed in the following scenario.) Once the boiler has been heated RDF is introduced to the boiler. The example below shows the sequence of events related to a start of up units after a 38-hour shutdown following a hurricane. As shown below by the following examples, once RDF is introduced it takes approximately 20 minutes for the RDF feed to be stabilized, which is indicated by a steam flow of 70,000 lbs/hr. Under unusual circumstances the period of RDF feed to the boiler prior to start up can be extended. This can occur if the boiler has to wait for the turbine to be put on-line. Operations does its best to limit such conditions and will typically shutdown the unit if this delay extends beyond 1 hour and 15 minutes. There is no data to provide an estimated frequency of these events, however, such occurrences are atypical.

Example 2 - Routine Cold Start-up, Unit #2

Unit	Date	Time	Condition	Time period	Average Emissions (lbs/hr)		
					CO	NOx	SO2
2	8/26/05	16:28	Start gas fire	16:28 – 21:44	11.31	3.79	0.08
		21:45	Start RDF feed	21:45 – 22:24	180.96	21.05	2.22
		22:25	Boiler on line				

Example 3 – Routine Cold Start up, Unit #3

Unit	Date	Time	Condition	Time period	Average Emissions (lbs/hr)		
					CO	NOx	SO2
3	8/26/05	16:37	Start gas fire	16:37 – 21:44	12.17	1.95	0.05
		21:45	Start RDF feed	21:45 – 22:24	222.73	25.66	3.90
		22:25	Boiler on line				

- *Extended Cold Start-up*: Approximately once per year, each unit has an extended cold start-up. This is done to condition the boiler internal surfaces after extensive boiler tube or metal surface work such as resurfacing. The surface conditioning procedure involves the burning of propane gas for a maximum of 10 hours before RDF is introduced. Once RDF is introduced, the timing of events is similar to a routine cold start up described above. Actual times of the start-up sequence have not been collected during an extended cold start-up, therefore, an example could not be provided for this scenario. However, the emissions during propane

combustion and during RDF combustion would be similar to those fuels at other times (which is shown in the charts above).

Description of typical boiler shutdown :

- Unplanned shutdown – At times, shutdowns results from fuel feed interruptions that were unplanned or due to other events such as boiler tube leaks etc. An example of one such event is shown below:

Example 4 – Unplanned shutdown, Unit #2

Unit	Date	Time	Condition	Time period	Average Emissions (lbs/hr)		
					CO	NOx	SO2
2	8/1/05	12:15	P2 conveyor down	(Note: since steam flow is above 70 klbs/hr, during these events the emissions are included in the data average)			
		12:45	Fuel bins empty				
		12:45	Unit off line (steam 70 klbs/hr) ;	12:45 – 13:29	67.81	7.48	1.00
		13:30[4]	Trash off the grates				

- *Planned shutdown* : The sequence of events for a planned shutdown are as follows :
  1. 2 hours prior to shutdown (while boiler is online) – blow soot
  2. 30 minutes prior to shutdown – gas gun in
  3. 30 minutes prior to shutdown – remove fuel from J-conveyor , so that bins begin emptying
  4. Boiler offline
  5. 15 to 30 minutes after boiler offline – bins empty
  6. 45 minutes after boiler offline – Grates are rolled. Trash off grates.

Example 4 – Planned Shut-down, Unit 1

Unit	Date	Time	Condition	Time period	Average Emissions (lbs/hr)		
					CO	NOx	SO2
1	9/19/05	18:31	Running feeder bin empty	(Note: since steam flow is above 70 klbs/hr, during these events the emissions are included in the data average)			
		18:51	#1 Boiler off line	18:51 – 19:35	72.69	22.77	5.81
		19:36[4]	Trash off grates				

[4] This time is estimated based on operator experience since there are no notes in the control room logbook.

ATTACHMENT #4

REFERENCES FOR UNCONTROLLED EMISSION FACTORS

Table 2.1-8 (Metric And English Units). EMISSION FACTORS FOR REFUSE-DERIVED FUEL-FIRED COMBUSTORS[a,b]

Pollutant	Uncontrolled			ESP[c]			SD/ESP[d]			SD/FF[e]		
	kg/Mg	lb/ton	EMISSION FACTOR RATING	kg/Mg	lb/ton	EMISSION FACTOR RATING	kg/Mg	lb/ton	EMISSION FACTOR RATING	kg/Mg	lb/ton	EMISSION FACTOR RATING
PM[f]	3.48 E+01	6.96 E+01	A	5.17 E-01	1.04 E+00	A	4.82 E-02	9.65 E-02	B	6.64 E-02	1.33 E-01	B
As[g]	2.97 E-03	5.94 E-03	B	6.70 E-05	1.34 E-04	D	5.41 E-06	1.08 E-05	D	2.59 E-06[h]	5.17 E-06[h]	A
Cd[g]	4.37 E-03	8.75 E-03	C	1.10 E-04	2.20 E-04	C	4.18 E-05	8.37 E-05	D	1.66 E-05[h]	3.32 E-05[h]	A
Cr[g]	6.99 E-03	1.40 E-02	B	2.34 E-04	4.68 E-04	D	5.44 E-05	1.09 E-04	D	2.04 E-05	4.07 E-05	D
Hg[g]	2.8 E-03	5.5 E-03	D	2.8 E-03	5.5 E-03	D	2.10 E-04	4.20 E-04	B	1.46 E-04	2.92 E-04	D
Ni[g]	2.18 E-03	4.36 E-03	C	9.05 E-03	1.81 E-02	D	9.64 E-05	1.93 E-04	D	3.15 E-05[j]	6.30 E-05[j]	A
Pb[g]	1.00 E-01	2.01 E-01	C	1.84 E-03[h]	3.66 E-03[h]	A	5.77 E-04	1.16 E-03	B	5.19 E-04	1.04 E-03	D
SO_2	1.95 E+00	3.90 E+00	C	ND	ND	NA	7.99 E-01	1.60E+00	D	2.21 E-01	4.41 E-01	D
HCl[g]	3.49 E+00	6.97 E+00	E	*	*		ND	ND	NA	2.64 E-02	5.28 E-02	C
NO_x[k]	2.51 E+00	5.02 E+00	A	*	*		*	*		*	*	
CO[k]	9.60 E-01	1.92 E+00	A	*	*		*	*		*	*	
CO_2[m]	1.34 E+03	2.68 E+03	E	*	*		*	*		*	*	
CDD/CDF[n]	4.73 E-06	9.47 E-06	D	8.46 E-06	1.69 E-05	B	5.31 E-08	1.06 E-07	D	1.22 E-08	2.44 E-08	E

[a] Emission factors were calculated from concentrations using an F-factor of 0.26 dscm/J (9,570 dscf/MBtu) and a heating value of 12,792 J/g (5,500 Btu/lb). Other heating values can be substituted by multiplying the emission factor by the new heating value and dividing by 12,792 J/g (5,500 Btu/lb). Source Classification Code 5-01-001-03. ND = no data. NA = not applicable. * = Same as uncontrolled for these pollutants.

[b] Emission factors should be used for estimating long-term, not short-term, emission levels. This particularly applies to pollutants measured with a continuous emission monitoring system (SO_2, NO_x, CO).

[c] ESP = Electrostatic Precipitator

[d] SD/ESP = Spray Dryer/Electrostatic Precipitator

[e] SD/FF = Spray Dryer/Fabric Filter

[f] PM = total particulate matter, as measured with EPA Reference Method 5.

[g] Hazardous air pollutants listed in the *Clean Air Act.*

[h] Levels were measured at non-detect levels, where the detection limit was higher than levels measured at other similarly equipped MWCs. Emission factors shown are based on emission levels from similarly equipped mass burn and MOD/EA combustors.

[j] No data available. Values shown are based on emission levels from SD/FF-equipped mass burn combustors.

[k] Control of NO_X and CO is not tied to traditional acid gas/PM control devices.

[m] Based on source tests from a single facility.[120] CO_2 emitted from this source may not increase total atmospheric CO_2 because emissions may be offset by the uptake of CO_2 by regrowing biomass.

[n] CDD/CDF = total tetra- through octa- chlorinated dibenzo-p-dioxin/chlorinated dibenzofurans, 2,3,7,8-tetrachlorodibenzo-p-dioxin, and dibenzofurans are hazardous air pollutants listed in the *Clean Air Act.*

The quantity of particulate emissions generated by either type of drop operation, per kilogram (kg) (ton) of material transferred, may be estimated, with a rating of A, using the following empirical expression:[11]

$$E = k(0.0016) \frac{\left[\frac{U}{2.2}\right]^{1.3}}{\left[\frac{M}{2}\right]^{1.4}} \text{ (kg/megagram [Mg])}$$

$$E = k(0.0032) \frac{\left[\frac{U}{5}\right]^{1.3}}{\left[\frac{M}{2}\right]^{1.4}} \text{ (pound [lb]/ton)} \qquad (1)$$

where:

E = emission factor
k = particle size multiplier (dimensionless)
U = mean wind speed, meters per second (m/s) (miles per hour [mph])
M = material moisture content (%)

The particle size multiplier in the equation, k, varies with aerodynamic particle size range, as follows:

Aerodynamic Particle Size Multiplier (k) For Equation 1				
< 30 μm	< 15 μm	< 10 μm	< 5 μm	< 2.5 μm
0.74	0.48	0.35	0.20	0.11

The equation retains the assigned quality rating if applied within the ranges of source conditions that were tested in developing the equation, as follows. Note that silt content is included, even though silt content does not appear as a correction parameter in the equation. While it is reasonable to expect that silt content and emission factors are interrelated, no significant correlation between the 2 was found during the derivation of the equation, probably because most tests with high silt contents were conducted under lower winds, and vice versa. It is recommended that estimates from the equation be reduced 1 quality rating level if the silt content used in a particular application falls outside the range given:

Ranges Of Source Conditions For Equation 1			
Silt Content (%)	Moisture Content (%)	Wind Speed	
		m/s	mph
0.44 - 19	0.25 - 4.8	0.6 - 6.7	1.3 - 15

EPA-450/2-89-006
April 1989

LOCATING AND ESTIMATING AIR TOXICS EMISSIONS FROM MUNICIPAL WASTE COMBUSTORS

By

Radian Corporation
Research Triangle Park, North Carolina 27709

EPA Project Officer: William B. Kuykendal

U. S. ENVIRONMENTAL PROTECTION AGENCY
Office Of Air And Radiation
Office Of Air Quality Planning And Standards
Research Triangle Park, North Carolina 27711

April 1989

TABLE 4-4. EMISSION FACTORS IN ENGLISH UNITS FOR OLDER MASS BURN WATERWALL MUNICIPAL WASTE COMBUSTORS[a]

Parameter	Uncontrolled Average	Uncontrolled Range	References	After ESP Only Average	After ESP Only Range	References	After Acid Gas and PM Control: Spray Drying Average	Spray Drying Range	After Acid Gas and PM Control: Dry Sorbent Injection[d] Average	Dry Sorbent Injection Range	References
Acid Gases, lb/ton											
HCl	13	- - -	5	3.8	2.2 - 3.8	6,7	-	- - -	3.6[b]	- - -	5
HF	0.018	- - -	8	0.010[b]	- - -	7	-	- - -	-	- - -	-
SO_3	0.15	- - -	8	-	- - -	-	-	- - -	-	- - -	-
Metals, lb/ton x 10^6											
Arsenic	8,000	840 - 15,000	8,9	1,200	260 - 2,200	7,9	-	- - -	-	- - -	-
Beryllium	0.48[b]	- - -	9	0.34	0.18 - 0.48	7,9	-	- - -	-	- - -	-
Cadmium	22,000	7,400 - 51,000	5,8,9	3,200	2,400 - 4,600	7,9,10	-	- - -	72[b]	- - -	5
Chromium	17,400	3,600 - 30,000	8,9	1,600	580 - 2,600	7,9	-	- - -	-	- - -	-
Mercury	1,400	170 - 3,600	5,8,9	10,000	220 - 20,000	7,9	-	- - -	2,200[b]	- - -	5
Nickel	20,000[b]	- - -	8	22,00[b]	- - -	7	-	- - -	-	- - -	-
Organics[c], lb/ton x 10^9											
2378-TCDD	-	- - -	-	220	4.2 - 580	7,10-14	-	- - -	-	- - -	-
2378-TCDF	-	- - -	-	1,000	220 - 2,200	7,12-14	-	- - -	-	- - -	-
Total TCDD	-	- - -	-	2,800	64 - 6,000	6,7,10-14	-	- - -	-	- - -	-
Total TCDF	-	- - -	-	11,000	900 - 34,000	6,7,10-14	-	- - -	-	- - -	-
CDD	-	- - -	-	24,000	340 - 54,000	6,10-14	-	- - -	-	- - -	-
CDF	-	- - -	-	48,000	1,600 - 82,000	6,10-14	-	- - -	-	- - -	-
PCB	-	- - -	-	5,400	420 - 10,000	6,10,11	-	- - -	-	- - -	-
Formaldehyde	-	- - -	-	16,000[b]	- - -	7	-	- - -	-	- - -	-
B(a)P	-	- - -	-	96,000	84,000 - 110,000	7,11	-	- - -	-	- - -	-
CB	20,000[b]	- - -	10	820,000	10,000 - 2,800,000	6,7,10,12	-	- - -	-	- - -	-
CP	-	- - -	-	1,200,000	30,000 - 1,900,000	6,10,12	-	- - -	-	- - -	-

[a]The data in this table are from combustors built before 1980. Note: For medium size units (250-800 t/day) use Table 4-6 or 4-8.

[b]One data point only.

[c]Key to organics: 2378-TCDD = 2378-tetrachlorodibenzo-p-dioxin; 2378-TCDF = 2378-tetrachlorodibenzofuran; Total TCDD = total tetrachlorodibenzo-p-dioxin; Total TCDF = total tetrachlorodibenzofuran; CDD = sum of tetra- through octa-chlorinated dibenzo-p-dioxins; CDF = sum of tetra- through octa-chlorinated dibenzofurans; PCB = polychlorinated biphenyls; B(a)P = benzo(a)pyrene; CB = chlorinated benzene; CP = chlorinated phenol.

[d]Some applications of Duct Sorbent Injection have control efficiencies comparable to Spray Drying (see discussion in section 3.3.2). When this is the case, the emission factors for Spray Drying should be used.

gep 002

MIC-EU1-IV2
Table 1. CAM Applicability Determination for Miami-Dade County Resource Recovery Facility (revised 10-02-2005)

Emission Source	Title V EU ID	Add-On Control Equipment	Pollutants with Emission Limits	Permitted Emission Limit (at 7% O_2)	40 CFR 60 Subpart Cb Emisison Limit (at 7% O_2)	Permit Limit More Stringent Than Subpart Cb ?	HAP ?	CAM Threshold (TPY)	Uncontrolled Emission Rate[b] (TPY)	CAM Plan Required?	Comments
RDF Unit 1, 2, 3 and 4 (each)[a]	001-004	Fabric Filter Baghouse	PM/PM10	0.0118 gr/dscf[d]	0.0118 gr/dscf	No	No	100	>100	No	Emission limit based on post-1990 NSPS (40 CFR 60, Subpart Cb)
		Spray Dryer Absorber	SO_2	75 % reduction[a]	75 % reduction[a]	No	No	100	N/A	No	Emission limit based on post-1990 NSPS (40 CFR 60, Subpart Cb)
		Spray Dryer Absorber	HCl	29 ppmvd[b]	29 ppmvd[b]	No	Yes	10	N/A	No	Emission limit based on post-1990 NSPS (40 CFR 60, Subpart Cb)
		SNCR	NO_x	250 ppmvd	250 ppmvd	No	No	100	N/A	No	Emission limit based on post-1990 NSPS (40 CFR 60, Subpart Cb)
		Modified Burner Design	CO	200 ppmvd	200 ppmvd	No	No	100	N/A	No	Emission limit based on post-1990 NSPS (40 CFR 60, Subpart Cb)
		No Control	VOC	25 ppmvd (as CH_4)	N/A	Yes	No	100	N/A	No	No pollution control equipment.
		Fabric Filter Baghouse	Pb	440 ug/dscm[d]	440 ug/dscm	No	Yes	5	23.77	No	Emission limit based on post-1990 NSPS (40 CFR 60, Subpart Cb)
		Activated Carbon	Hg	0.070 mg/dscm[c]	0.080 mg/dscm[c]	Yes	Yes	10	0.65	No	Uncontrolled emissions <10 TPY
		Fabric Filter Baghouse	Be	0.46 ug/m^3	N/A	Yes	Yes	10	0.000057	No	Uncontrolled emissions <10 TPY
		Fabric Filter Baghouse	Cd	15 ug/dscm	40 ug/dscm	Yes	Yes	10	1.03	No	Uncontrolled emissions <10 TPY
		Fabric Filter Baghouse	As	9.3 ug/dscm	N/A	Yes	Yes	10	0.70	No	Uncontrolled emissions <10 TPY
		Spray Dryer Absorber	FL	840 ug/dscm	N/A	Yes	No	100	2.1	No	Uncontrolled emissions <100 TPY
		Spray Dryer Absorber	SAM	2.1 ppmvd	N/A	Yes	No	100	21.7	No	Uncontrolled emissions <100 TPY
		Activated Carbon	Dioxins/Furans	30 ng/dscm	30 ng/dscm	No	Yes	10	N/A	No	Emission limit based on post-1990 NSPS (40 CFR 60, Subpart Cb)
Biomass Processing	-sss (EU007)	Baghouse	PM	0.01 gr/dscf	--	--	No	100	1.5	No	Uncontrolled emissions <100 TPY
Ash Storage Silo	-ttt (EU008)	Baghouse	PM[c]	5 % opacity	--	--	No	100	N/A	No	No Emission Limit[c]
Lime Storage Silos (2)	-uuu (EU009)	Baghouse (2)	PM	5 % opacity	--	--	No	100	N/A	No	No Emission Limit
Activated Carbon Storage Silos (2)	-vvv (EU010)	Baghouse (2)	PM[c]	5 % opacity	--	--	No	100	N/A	No	No Emission Limit[c]

HAP = hazardous air pollutant
TPY = tons per year
Notes:
[a] Emission rates presented per unit.
[b] Refer to Tables 2 through 9 for uncontrolled emission rate calculations.
[c] Permit presents option of PM limit or VE limit. Facility demonstrates compliance with VE limit.
[d] Proposed permit limit. Curent limits are 0.011 gr/dscf for PM and 380 ug/dscm for Pb.

ATTACHMENT #5

REVISED CAM APPLICABILITY TABLES

MIC-EU1-IV2

Table 2. Uncontrolled Fluoride Emission Rates for MDCRR RDF Combustor Units

			Uncontrolled Fluoride Emissions		
Emission Source	Title V EU ID	Production/ Process Rate[a]	Uncontrolled Emission Factor (lb/ton)	Ref.	Emission Rate[b] (TPY)
RDF Unit 1	001	648 ton/day	0.018	1	2.1
RDF Unit 2	002	648 ton/day	0.018	1	2.1
RDF Unit 3	003	648 ton/day	0.018	1	2.1
RDF Unit 4	004	648 ton/day	0.018	1	2.1

1. Locating and Estimating Air Toxics Emissions from MSW Combustors, April 1989. EPA-450/2-89-006, Table 4-4, English units, Mass Burn Waterwall MSW Combustors. Emission factor presented for HF, assumed Total Fluorides are predominantly HF.

Notes:

[a] Based on Title V permit limit of operation

[b] Based on 365 days of operation

MIC-EU1-IV2

Table 3. Summary of Uncontrolled Sulfuric Acid Mist Emission Rates for MDCRR RDF Combustor Units

			Uncontrolled SAM Emissions				
Emission Source	Title V EU ID	Production/ Process Rate[a]	SO_3 Emission Factor	Ref.	SAM Emission Factor	Ref.	Emission Rate[b] (TPY)
RDF Unit 1	001	648 ton/day	0.15 lb/ton RDF	1	0.18 lb/ton RDF	2	21.73
RDF Unit 2	002	648 ton/day	0.15 lb/ton RDF	1	0.18 lb/ton RDF	2	21.73
RDF Unit 3	003	648 ton/day	0.15 lb/ton RDF	1	0.18 lb/ton RDF	2	21.73
RDF Unit 4	004	648 ton/day	0.15 lb/ton RDF	1	0.18 lb/ton RDF	2	21.73

SAM = Sulfuric Acid Mist

1. Locating and Estimating Air Toxics Emissions from MSW Combustors, April 1989. EPA-450/2-89-006, Table 4-4, Mass Burn Waterwall MSW Combustors.
2. Converted SO_3 emission factor to SAM: SO_3 x 98/80
   Mol Wt. SO_3=80; Mol Wt. H_2SO_4=98

Notes:

RDF-Refuse Derived Fuel

[a] Based on Title V permit limit of operation

[b] Based on 365 days of operation

MIC-EU1-IV2

Table 4. Summary of Uncontrolled Beryllium Emission Rates from MDCRR RDF Combustor Units

			Uncontrolled Be Emissions		
Emission Source	Title V EU ID	Production/ Process Rate[a]	Uncontrolled Emission Factor ($lb/10^6$ ton)	Ref.	Emission Rate[b] (TPY)
RDF Unit 1	001	648 ton/day	0.48	1	0.000057
RDF Unit 2	002	648 ton/day	0.48	1	0.000057
RDF Unit 3	003	648 ton/day	0.48	1	0.000057
RDF Unit 4	004	648 ton/day	0.48	1	0.000057

1. Locating and Estimating Air Toxics Emissions from MSW Combustors, April 1989. EPA-450/2-89-006, Table 4-4, English units, Mass Burn Waterwall MSW Combustors.

Notes:

[a] Based on Title V permit limit of operation

[b] Based on 365 days of operation

MIC-EU1-IV2

Table 5. Summary of Uncontrolled Arsenic Emission Rates for MDCRRF RDF Combustor Units

			Uncontrolled As Emissions		
Emission Source	Title V EU ID	Production/ Process Rate[a]	Emission Factor	Ref.	Emission Rate[b] (TPY)
RDF Unit 1	001	648 ton/day	0.00594 lb/ton RDF	1	0.70
RDF Unit 2	002	648 ton/day	0.00594 lb/ton RDF	1	0.70
RDF Unit 3	003	648 ton/day	0.00594 lb/ton RDF	1	0.70
RDF Unit 4	004	648 ton/day	0.00594 lb/ton RDF	1	0.70

1. Based on AP-42 Table 2.1-8, Uncontrolled Emission Factor for Refuse Combustion (10/96).

Notes:

RDF-Refuse Derived Fuel

[a] Based on Title V permit limit of operation

[b] Based on 365 days of operation

MIC-EU1-IV2

Table 6. Summary of Uncontrolled PM Emission Rates for MDCRR Biomass Processing Sources

		Uncontrolled PM Emissions		
Emission Source	Title V EU ID	Uncontrolled Emission Factor[a]	Production/ Process Rate[b]	Emission Rate (TPY)
Biomass Processing	-sss (EU007)	0.0076 lb/ton	400,000 tons	1.5

Notes:

[a] Emission factors based on the drop equation (AP-42 13.2.4-3):

E (lb/ton) = k x (0.0032) x [(U/5)^1.3]/[(M/2)^1.4]; where k = 0.74 for PM and 0.35 for PM10; M = 0.25%; U = 1.3 mph (enclosed, low range of AP-42 wind speed)

[b] Based on permit maximum.

MIC-EU1-IV2
Table 7. Summary of Uncontrolled Lead Emission Rates for MDCRR RDF Combustor Units

			Uncontrolled Pb Emissions		
Emission Source	Title V EU ID	Production/ Process Rate[a]	Emission Factor	Ref.	Emission Rate[b] (TPY)
RDF Unit 1	001	648 ton/day	0.201 lb/ton RDF	1	23.77
RDF Unit 2	002	648 ton/day	0.201 lb/ton RDF	1	23.77
RDF Unit 3	003	648 ton/day	0.201 lb/ton RDF	1	23.77
RDF Unit 4	004	648 ton/day	0.201 lb/ton RDF	1	23.77

1. Based on AP-42 Table 2.1-8, Uncontrolled Emission Factors for Refuse Combustion (10/96).
Notes:
RDF-Refuse Derived Fuel
[a] Based on Title V permit limit of operation
[b] Based on 365 days of operation

MIC-EU1-IV2
Table 8 - Summary of Uncontrolled Mercury Emission Rates for MDCRR RDF Combustor Units

			Uncontrolled Hg Emissions		
Emission Source	Title V EU ID	Production/ Process Rate[a]	Emission Factor	Ref.	Emission Rate[b] (TPY)
RDF Unit 1	001	648 ton/day	0.0055 lb/ton RDF	1	0.65
RDF Unit 2	002	648 ton/day	0.0055 lb/ton RDF	1	0.65
RDF Unit 3	003	648 ton/day	0.0055 lb/ton RDF	1	0.65
RDF Unit 4	004	648 ton/day	0.0055 lb/ton RDF	1	0.65

1. Based on AP-42 Table 2.1-8, Uncontrolled Emission Factors for Refuse Combustion (10/96).

Notes:

RDF-Refuse Derived Fuel

[a] Based on Title V permit limit of operation

[b] Based on 365 days of operation

MIC-EU1-IV2
Table 9. Uncontrolled Cadmium Emission Rates for MDCRR RDF Combustor Units

			Uncontrolled Cd Emissions		
Emission Source	Title V EU ID	Production/ Process Rate[a]	Emission Factor	Ref.	Emission Rate[b] (TPY)
RDF Unit 1	001	648 ton/day	0.00875 lb/ton RDF	1	1.03
RDF Unit 2	002	648 ton/day	0.00875 lb/ton RDF	1	1.03
RDF Unit 3	003	648 ton/day	0.00875 lb/ton RDF	1	1.03
RDF Unit 4	004	648 ton/day	0.00875 lb/ton RDF	1	1.03

1. Based on AP-42 Table 2.1-8, Uncontrolled Emission Factor for Refuse Combustion (10/96).
Notes:
RDF-Refuse Derived Fuel
[a] Based on Title V permit limit of operation
[b] Based on 365 days of operation

ATTACHMENT #6

REVISED APPLICATION FORM PAGES

APPLICATION INFORMATION

Application Responsible Official Certification

Complete if applying for an initial/revised/renewal Title V permit or concurrent processing of an air construction permit and a revised/renewal Title V permit. If there are multiple responsible officials, the "application responsible official" need not be the "primary responsible official."

1. Application Responsible Official Name:
   Tom Morello, Plant Manager

2. Application Responsible Official Qualification (Check one or more of the following options, as applicable):
   - ☒ For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C.
   - ☐ For a partnership or sole proprietorship, a general partner or the proprietor, respectively.
   - ☐ For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official.
   - ☐ The designated representative at an Acid Rain source.

3. Application Responsible Official Mailing Address...
   Organization/Firm: Montenay Power Corporation
   Street Address: 6990 N.W. 97th Avenue
   City: Miami State: Florida Zip Code: 33178

4. Application Responsible Official Telephone Numbers...
   Telephone: (305) 593-7000 ext. Fax: (305) 593-7203

5. Application Responsible Official Email Address: tmorello@montenay-onyx.com

6. Application Responsible Official Certification:

   I, the undersigned, am a responsible official of the Title V source addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof and all other applicable requirements identified in this application to which the Title V source is subject. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department, and I will promptly notify the department upon sale or legal transfer of the facility or any permitted emissions unit. Finally, I certify that the facility and each emissions unit are in compliance with all applicable requirements to which they are subject, except as identified in compliance plan(s) submitted with this application.

   T Morello — Signature

   10/13/05 — Date

APPLICATION INFORMATION

Professional Engineer Certification

1. Professional Engineer Name: **David A. Buff**
   Registration Number: **19011**
2. Professional Engineer Mailing Address...
   Organization/Firm: **Golder Associates Inc.****
   Street Address: **6241 NW 23rd Street, Suite 500**
   City: **Gainesville** State: **FL** Zip Code: **32653**
3. Professional Engineer Telephone Numbers...
   Telephone: **(352) 336-5600** ext.**545** Fax: **(352) 336-6603**
4. Professional Engineer Email Address: **dbuff@golder.com**
5. Professional Engineer Statement:

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

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

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

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

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

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

David A. Buff — 10/13/05

Signature — Date

(seal)

* Attach any exception to certification statement.

**** Board of Professional Engineers Certificate of Authorization #00001670**

III. EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Application - For Title V air operation permitting only, emissions units are classified as regulated, unregulated, or insignificant. If this is an application for Title V air operation permit, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each regulated and unregulated emissions unit addressed in this application for air permit. Some of the subsections comprising the Emissions Unit Information Section of the form are optional for unregulated emissions units. Each such subsection is appropriately marked. Insignificant emissions units are required to be listed at Section II, Subsection C.

Air Construction Permit or FESOP Application - For air construction permitting or federally enforceable state air operation permitting, emissions units are classified as either subject to air permitting or exempt from air permitting. The concept of an "unregulated emissions unit" does not apply. If this is an application for air construction permit or FESOP, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air permitting are required to be listed at Section II, Subsection C.

Air Construction Permit and Revised/Renewal Title V Air Operation Permit Application – Where this application is used to apply for both an air construction permit and a revised/renewal Title V air operation permit, each emissions unit is classified as either subject to air permitting or exempt from air permitting for air construction permitting purposes and as regulated, unregulated, or insignificant for Title V air operation permitting purposes. **The air construction permitting classification must be used to complete the Emissions Unit Information Section of this application for air permit.** A separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air construction permitting and insignificant emissions units are required to be listed at Section II, Subsection C.

If submitting the application form in hard copy, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application must be indicated in the space provided at the top of each page.

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **PM**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **8.93**lb/hour **29.0**tons/year	4. Synthetically Limited? ☐ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **0.0118 gr/dscf @ 7% O2** Reference: **40 CFR 60, Subpart Cb**	7. Emissions Method Code: **0**
8. Calculation of Emissions: **See Table MIC-EU1-F8**	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: **Equivalent to 40 CFR 60.33a(1)(i) emission unit of 27 mg/dscm @ 7% O2. Annual emissions based on PSD-FL-006(D).**	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.0118 gr/dscf @ 7% O2**	4. Equivalent Allowable Emissions: **8.93** lb/hour **29.0** tons/year
5. Method of Compliance: **EPA Method 5 or 29**	
6. Allowable Emissions Comment (Description of Operating Method): **40 CFR 60.33a(1)(i)**	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **PM10**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **8.93** lb/hour **29.0** tons/year	4. Synthetically Limited? ☐ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **0.0118 gr/dscf @ 7% O_2** Reference: **40 CFR 60, Subpart Cb**	7. Emissions Method Code: **0**
8. Calculation of Emissions: **See Table MIC-EU1-F8**	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: **Equivalent to 40 CFR 60.33a(1)(l) emission unit of 27 mg/dscm @ 7% O_2. Annual emissions based on PSD-FL006(D).**	

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **PM10**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **8.93** lb/hour **29.0** tons/year	4. Synthetically Limited? ☐ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **0.0118 gr/dscf @ 7% O2** Reference: **40 CFR 60, Subpart C6**	7. Emissions Method Code: **0**
8. Calculation of Emissions: **See Table MIC-EU1-F8**	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: **Equivalent to 40 CFR 60.33a(1)(l) emission unit of 27 mg/dscm @ 7% O2. Annual emissions based on PSD-FL006(D).**	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **PB**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **0.145** lb/hour **0.44** tons/year	4. Synthetically Limited? ☐ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **440 ug/dscm @ 7% O2** Reference: **40 CFR 60.33b(a)(2)(iii)**	7. Emissions Method Code: **0**
8. Calculation of Emissions: **See Table MIC-EU1-F8**	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: **Based on 40 CFR 60.33b(a)(2)(iii). Annual emissions based on PSD-FI-006(D).**	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **440 ug/dscm @7% O2**	4. Equivalent Allowable Emissions: **0.145** lb/hour **0.44** tons/year
5. Method of Compliance: **EPA Method 29**	
6. Allowable Emissions Comment (Description of Operating Method): **40 CFR 60.33b(a)(2)(iii) and PSD-FL-006(D)**	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

III. EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Application - For Title V air operation permitting only, emissions units are classified as regulated, unregulated, or insignificant. If this is an application for Title V air operation permit, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each regulated and unregulated emissions unit addressed in this application for air permit. Some of the subsections comprising the Emissions Unit Information Section of the form are optional for unregulated emissions units. Each such subsection is appropriately marked. Insignificant emissions units are required to be listed at Section II, Subsection C.

Air Construction Permit or FESOP Application - For air construction permitting or federally enforceable state air operation permitting, emissions units are classified as either subject to air permitting or exempt from air permitting. The concept of an "unregulated emissions unit" does not apply. If this is an application for air construction permit or FESOP, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air permitting are required to be listed at Section II, Subsection C.

Air Construction Permit and Revised/Renewal Title V Air Operation Permit Application – Where this application is used to apply for both an air construction permit and a revised/renewal Title V air operation permit, each emissions unit is classified as either subject to air permitting or exempt from air permitting for air construction permitting purposes and as regulated, unregulated, or insignificant for Title V air operation permitting purposes. **The air construction permitting classification must be used to complete the Emissions Unit Information Section of this application for air permit.** A separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air construction permitting and insignificant emissions units are required to be listed at Section II, Subsection C.

If submitting the application form in hard copy, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application must be indicated in the space provided at the top of each page.

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **PM**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **8.93**lb/hour **29.0**tons/year	4. Synthetically Limited? ☐ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **0.0118 gr/dscf @ 7% O2** Reference: **40 CFR 60, Subpart Cb**	7. Emissions Method Code: **0**
8. Calculation of Emissions: **See Table MIC-EU1-F8**	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: **Equivalent to 40 CFR 60.33a(1)(i) emission unit of 27 mg/dscm @ 7% O2. Annual emissions based on PSD-FL-006(D).**	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.0118 gr/dscf @ 7% O2**	4. Equivalent Allowable Emissions: **8.93** lb/hour **29.0** tons/year
5. Method of Compliance: **EPA Method 5 or 29**	
6. Allowable Emissions Comment (Description of Operating Method): **40 CFR 60.33a(1)(i)**	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **PM10**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **8.93** lb/hour **29.0** tons/year	4. Synthetically Limited? ☐ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **0.0118 gr/dscf @ 7% O_2** Reference: **40 CFR 60, Subpart Cb**	7. Emissions Method Code: **0**
8. Calculation of Emissions: **See Table MIC-EU1-F8**	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: **Equivalent to 40 CFR 60.33a(1)(l) emission unit of 27 mg/dscm @ 7% O_2. Annual emissions based on PSD-FL006(D).**	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **PB**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **0.145** lb/hour **0.44** tons/year	4. Synthetically Limited? ☐ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **440 ug/dscm @ 7% O2** Reference: **40 CFR 60.33b(a)(2)(iii)**	7. Emissions Method Code: **0**
8. Calculation of Emissions: **See Table MIC-EU1-F8**	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: **Based on 40 CFR 60.33b(a)(2)(iii). Annual emissions based on PSD-FI-006(D).**	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **440 ug/dscm @7% O2**	4. Equivalent Allowable Emissions: **0.145** lb/hour **0.44** tons/year
5. Method of Compliance: **EPA Method 29**	
6. Allowable Emissions Comment (Description of Operating Method): **40 CFR 60.33b(a)(2)(iii) and PSD-FL-006(D)**	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

III. EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Application - For Title V air operation permitting only, emissions units are classified as regulated, unregulated, or insignificant. If this is an application for Title V air operation permit, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each regulated and unregulated emissions unit addressed in this application for air permit. Some of the subsections comprising the Emissions Unit Information Section of the form are optional for unregulated emissions units. Each such subsection is appropriately marked. Insignificant emissions units are required to be listed at Section II, Subsection C.

Air Construction Permit or FESOP Application - For air construction permitting or federally enforceable state air operation permitting, emissions units are classified as either subject to air permitting or exempt from air permitting. The concept of an "unregulated emissions unit" does not apply. If this is an application for air construction permit or FESOP, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air permitting are required to be listed at Section II, Subsection C.

Air Construction Permit and Revised/Renewal Title V Air Operation Permit Application – Where this application is used to apply for both an air construction permit and a revised/renewal Title V air operation permit, each emissions unit is classified as either subject to air permitting or exempt from air permitting for air construction permitting purposes and as regulated, unregulated, or insignificant for Title V air operation permitting purposes. **The air construction permitting classification must be used to complete the Emissions Unit Information Section of this application for air permit.** A separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air construction permitting and insignificant emissions units are required to be listed at Section II, Subsection C.

If submitting the application form in hard copy, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application must be indicated in the space provided at the top of each page.

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **PM**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **8.93**lb/hour **29.0**tons/year	4. Synthetically Limited? ☐ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **0.0118 gr/dscf @ 7% O2** Reference: **40 CFR 60, Subpart Cb**	7. Emissions Method Code: **0**
8. Calculation of Emissions: **See Table MIC-EU1-F8**	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: **Equivalent to 40 CFR 60.33a(1)(i) emission unit of 27 mg/dscm @ 7% O2. Annual emissions based on PSD-FL-006(D).**	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.0118 gr/dscf @ 7% O2**	4. Equivalent Allowable Emissions: **8.93** lb/hour **29.0** tons/year
5. Method of Compliance: **EPA Method 5 or 29**	
6. Allowable Emissions Comment (Description of Operating Method): **40 CFR 60.33a(1)(i)**	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **PM10**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **8.93** lb/hour **29.0** tons/year	4. Synthetically Limited? ☐ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **0.0118 gr/dscf @ 7% O_2** Reference: **40 CFR 60, Subpart Cb**	7. Emissions Method Code: **0**
8. Calculation of Emissions: **See Table MIC-EU1-F8**	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: **Equivalent to 40 CFR 60.33a(1)(l) emission unit of 27 mg/dscm @ 7% O_2. Annual emissions based on PSD-FL006(D).**	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **PB**	2. Total Percent Efficiency of Control:	
3. Potential Emissions: **0.145** lb/hour **0.44** tons/year		4. Synthetically Limited? ☐ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year		
6. Emission Factor: **440 ug/dscm @ 7% O2** Reference: **40 CFR 60.33b(a)(2)(iii)**		7. Emissions Method Code: **0**
8. Calculation of Emissions: **See Table MIC-EU1-F8**		
9. Pollutant Potential/Estimated Fugitive Emissions Comment: **Based on 40 CFR 60.33b(a)(2)(iii). Annual emissions based on PSD-FI-006(D).**		

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **440 ug/dscm @7% O2**	4. Equivalent Allowable Emissions: **0.145** lb/hour **0.44** tons/year
5. Method of Compliance: **EPA Method 29**	
6. Allowable Emissions Comment (Description of Operating Method): **40 CFR 60.33b(a)(2)(iii) and PSD-FL-006(D)**	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

III. EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Application - For Title V air operation permitting only, emissions units are classified as regulated, unregulated, or insignificant. If this is an application for Title V air operation permit, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each regulated and unregulated emissions unit addressed in this application for air permit. Some of the subsections comprising the Emissions Unit Information Section of the form are optional for unregulated emissions units. Each such subsection is appropriately marked. Insignificant emissions units are required to be listed at Section II, Subsection C.

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If submitting the application form in hard copy, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application must be indicated in the space provided at the top of each page.

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **PM**	2. Total Percent Efficiency of Control:	
3. Potential Emissions: **8.93**lb/hour **29.0**tons/year		4. Synthetically Limited? ☐ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year		
6. Emission Factor: **0.0118 gr/dscf @ 7% O2** Reference: **40 CFR 60, Subpart Cb**		7. Emissions Method Code: **0**
8. Calculation of Emissions: **See Table MIC-EU1-F8**		
9. Pollutant Potential/Estimated Fugitive Emissions Comment: **Equivalent to 40 CFR 60.33a(1)(i) emission unit of 27 mg/dscm @ 7% O2. Annual emissions based on PSD-FL-006(D).**		

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.0118 gr/dscf @ 7% O2**	4. Equivalent Allowable Emissions: **8.93** lb/hour **29.0** tons/year
5. Method of Compliance: **EPA Method 5 or 29**	
6. Allowable Emissions Comment (Description of Operating Method): **40 CFR 60.33a(1)(i)**	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **PM10**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **8.93** lb/hour **29.0** tons/year	4. Synthetically Limited? ☐ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **0.0118 gr/dscf @ 7% O_2** Reference: **40 CFR 60, Subpart Cb**	7. Emissions Method Code: **0**
8. Calculation of Emissions: **See Table MIC-EU1-F8**	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: **Equivalent to 40 CFR 60.33a(1)(I) emission unit of 27 mg/dscm @ 7% O_2. Annual emissions based on PSD-FL006(D).**	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **PB**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **0.145** lb/hour **0.44** tons/year	4. Synthetically Limited? ☐ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **440 ug/dscm @ 7% O2** Reference: **40 CFR 60.33b(a)(2)(iii)**	7. Emissions Method Code: **0**
8. Calculation of Emissions: **See Table MIC-EU1-F8**	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: **Based on 40 CFR 60.33b(a)(2)(iii). Annual emissions based on PSD-FI-006(D).**	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: **RULE**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **440 ug/dscm @7% O2**	4. Equivalent Allowable Emissions: **0.145** lb/hour **0.44** tons/year
5. Method of Compliance: **EPA Method 29**	
6. Allowable Emissions Comment (Description of Operating Method): **40 CFR 60.33b(a)(2)(iii) and PSD-FL-006(D)**	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

MIC-EU1-F8: Summary of Maximum Emission Rates of Regulated Pollutants for the boiler units, Miami-Dade County Resource Recovery **(revised 10-02-2005)**

Regulated Pollutant	Basis of Emission Factor	Emission Factor (at 7% O2)	References	Maximum Emission Rate per Unit: Maximum 1-hr [a] (lb/hr)	Maximum 24-hr [b] (lb/hr)	(TPY) [c]	Total Annual Emission Rate For All Four Units (TPY)
Particulate Matter (TSP/PM10)	40 CFR 60, Subpart Cb	0.0118 gr/dscf	2	8.93	8.12	29.0	116.0
Sulfur Dioxide	40 CFR 60, Subpart Cb	75 % reduction [d]	1, 2			214.2	856.8
Hydrogen Chloride	40 CFR 60, Subpart Cb	29 ppmvd [e]	1, 2	14.34	13.04	57.1	228.5
Nitrogen Oxides	40 CFR 60, Subpart Cb	250 ppmvd	1, 2	158.01	143.69	614.9	2,459.6
Carbon Monoxide	40 CFR 60, Subpart Cb	200 ppmvd	1, 2	76.94	69.97	267.7	1,070.8
Volatile Organic Compounds	PSD-FL-006(D)	25 ppmvd (as CH_4)	1	5.50	5.00	19.1	76.4
Lead	PSD-FL-006(D)	440 ug/dscm	2	0.145	0.132	0.44	1.76
Mercury	F.A.C. Rule 62-296.416	0.070 mg/dscm [f]	1, 3	0.023	0.021	0.08	0.32
Beryllium	PSD-FL-006(D)	0.46 ug/m^3	1	0.00015	0.00014	0.0005	0.0020
Cadmium	PSD-FL-006(D)	15 ug/dscm	1	0.0050	0.0045	0.027	0.11
Arsenic	PSD-FL-006(D)	9.3 ug/dscm	1	0.0031	0.0028	0.011	0.044
Fluorides	PSD-FL-006(D)	840 ug/dscm	1	0.278	0.253	0.97	3.88
Sulfuric Acid Mist	PSD-FL-006(D)	2.1 ppmvd	1	2.83	2.57	9.80	39.2
Dioxin/Furan [g]	40 CFR 60, Subpart Cb	30 ng/dscm	1, 2	9.92E-06	9.02E-06	0.000038	0.00015

Notes:
gr/dscf = grains per dry standard cubic foot.
lb/hr = pounds per hour.
mg/dscm = milligrams per dry standard cubic meter.
ug/m^3 = micrograms per actual cubic meter.
ng/dscm = nanograms per dry standard cubic meter
PM10 = particulate matter with an aerodynamic diameter less than 10 microns.
ppmvd = parts per million by volume dry.
TPY = tons per year.
TSP = total suspended particulate.

References:
1. Emission limit per permit PSD-FL-006(D).
2. Emission limit per 40 CFR 63, Subpart Cb.
3. Emission limit per 62-296.416, F.A.C.

Footnotes:
[a] Based on a steam rate of 198,000 lb/hr, with a corresponding flue gas flow rate of 88,250 dscfm at 7% oxygen (2,499 dscm/min).
[b] Based on a steam rate of 180,000 lb/hr, with a corresponding flue gas flow rate of 80,250 dscfm at 7% oxygen (2,273 dscm/min).
[c] Annual emission for all pollutants are limited by specific permit condition in PSD-FL-006(D).
[d] Permit no. PSD-FL-006(D) and CFR 40 60.33b(b)(3)(i) allows an SO_2 concentration in the flue gas discharged to the atmosphere of 29 ppmvd @ 7% O_2 or a 75% reduction in weight or volume (whichever is less stringent). The 75% reduction is less stringent.
[e] Permit no. PSD-FL-006(D) and CFR 40 60.33b(b)(3)(ii) allows an HCl concentration in the flue gas discharged to the atmosphere of 29 ppmvd @ 7% O_2 or a 95% reduction in weight or volume (whichever is less stringent). The 29 ppmvd is less stringent.
[f] Permit no. PSD-FL-006(D) allows a mercury concentration in the flue gas discharged to the atmosphere of 0.070 mg/dscm @ 7% O_2 or an 85% reduction by weight. CFR 40 60.33b(a)(3) allows an Hg concentration in the flue gas discharged to the atmosphere of 30.080 mg/dscm @ 7% O_2 or a 85% reduction in weight or volume (whichever is less stringent).
[g] As total tetra- through octa-dioxins/furans.

Calculations:
To calculate emissions with an emission factor (EF) in terms of gr/dscf: lb/hr = EF(gr/dscf) x flow rate(dscfm) x 60 (min/hr)/7000
To calculate emissions with an emission factor (EF) in terms of mg/dscm: lb/hr = (EF(mg/dscm) x flow rate (dscm/min) x 2.832E-2(m3/ft3) x 2.205E-3 (lb/g) x 60(min/hr))/1E3
To calculate emissions with an emission factor (EF) in terms of ug/dscm: lb/hr = (EF(ug/dscm) x flow rate (dscm/min) x 2.832E-2(m3/ft3) x 2.205E-3 (lb/g) x 60(min/hr))/1E6
To calculate emissions with an emission factor (EF) in terms of ppmvd: lb/hr = (EF(ppmvd) x MW x flow rate(dscf/min) x 2,116.8 lb_f/ft^2 x 60(min/hr))/(1,545 ft-lb_f/lb_m-°R x 528°R x 1E6)

ATTACHMENT #7

BIOMASS FUEL DEFINITION

Attachment #7 - Additional request on Title V Permit – Biomass fuel processing

The current Title V permit states the following with respect to biomass :

Section I. , Subsection A., Paragraph 1:

"The facility's primary activities are garbage and trash receiving and processing (including a metals recovery system); fuel handling and storage; biomass production and export; RDF, natural gas, and propane combustion; ash storage and processing, including a monofill ash landfill; and, maintaining ancillary support equipment."

Section I. , Subsection A., Paragraph 2:

"The biomass fuel preparation system will process up to 400,000 tons per year of the bulky solid waste into biomass, which will be either transported off-site for use in biomass-fired cogeneration units or combusted on-site."

Section I. , Subsection A., Paragraph 2:

"The facility is allowed to burn the facility's processed biomass fuel (5%, by weight) not transported off-site..."

Section III, Subsection B, Condition B.12.(6)

"Biomass Fuel. Subject to the conditions and limitations contained in this permit, biomass fuel may be burned at this facility (authorized fuel that is not MSW material). The total quantity of biomass material received as segregated load and burned in the combustion units shall not exceed 5%, by weight, of the facility's total fuel. Compliance with this limitation shall be determined as a daily average on a calendar monthly basis in accordance with specific condition B.108 below."

The descriptive information in Subsection A could be misread to limit the amount of biomass, from on-site production, to 5% of the total waste processed. We believe that this 5% limit should apply only to segregated loads of biomass (which are received from off-site sources) as stated in Section III, Subsection B, Condition B.12.(6). Furthermore there should be no difference in the restrictions that apply to processed trash and biomass that is burned on site since biomass is part of the trash processing system. This was previously explained to FDEP in 1999 as part of the previous Title V permitting process (see attached memorandum to Theresa Heron dated April 6, 1999), however, the language is still unclear. As such, we request the following changes to the Title V and PSD permits :

Section I. , Subsection A., Paragraph 2 (requested revision):

"The facility is allowed to burn the facility's processed biomass fuel ~~(5%, by weight)~~ not transported off-site..."

Section III, Subsection B, Condition B.12.(6)

"Biomass Fuel. Subject to the conditions and limitations contained in this permit, biomass fuel may be burned at this facility (including biomass from offsite sources ~~authorized fuel that is not MSW material~~). The total quantity of biomass material received as segregated load from off-site sources and burned in the combustion units shall not exceed 5%, by weight, of the facility's total fuel. Compliance with this limitation shall be determined as a

daily average on a calendar monthly basis in accordance with specific condition B.108 below. Biomass from on-site production will be subject to the limitations that apply to trash and or RDF as contained in this permit."

Montenay International Corp.

Memo

To: Theresa Heron

From: Anetha Lue AL.

CC: Emil Johnson

Date: 04/06/99

Re: Dade County Resource Recovery Facility Permit Information

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FDEP questioned a request to change the permit language for the DCRRF. The change was requested to try and more accurately reflect the fact that the biomass is sometimes blended with the plant fuel supply instead of being sent off-site for sale. I have verified that biomass is the same as the trash component of RDF except that the biomass fuel contains less plastics, soil and stones than normal trash. The term "biomass" was used merely to provide a distinction for the off-site user and to allow different accounting of this material for payments and for the contract between Montenay and the off-site user.

In order to better explain the process I marked-up the flow diagram from the Power Plant Site Certification Application to show the "biomass" process. It shows the additional sorting which takes place when biomass is being produced. It shows that biomass is actually part of the trash line. For environmental purposes biomass is thus no different that trash (as the distinction is really related to the higher production cost). I have also included a section of the application that provides the definition of trash and garbage. As described in the application, trash (or in some cases trash routed through the biomass system) and garbage produce the RDF which is stored in the fuel storage building before being fed to the units.

Please let me know if there are other questions.

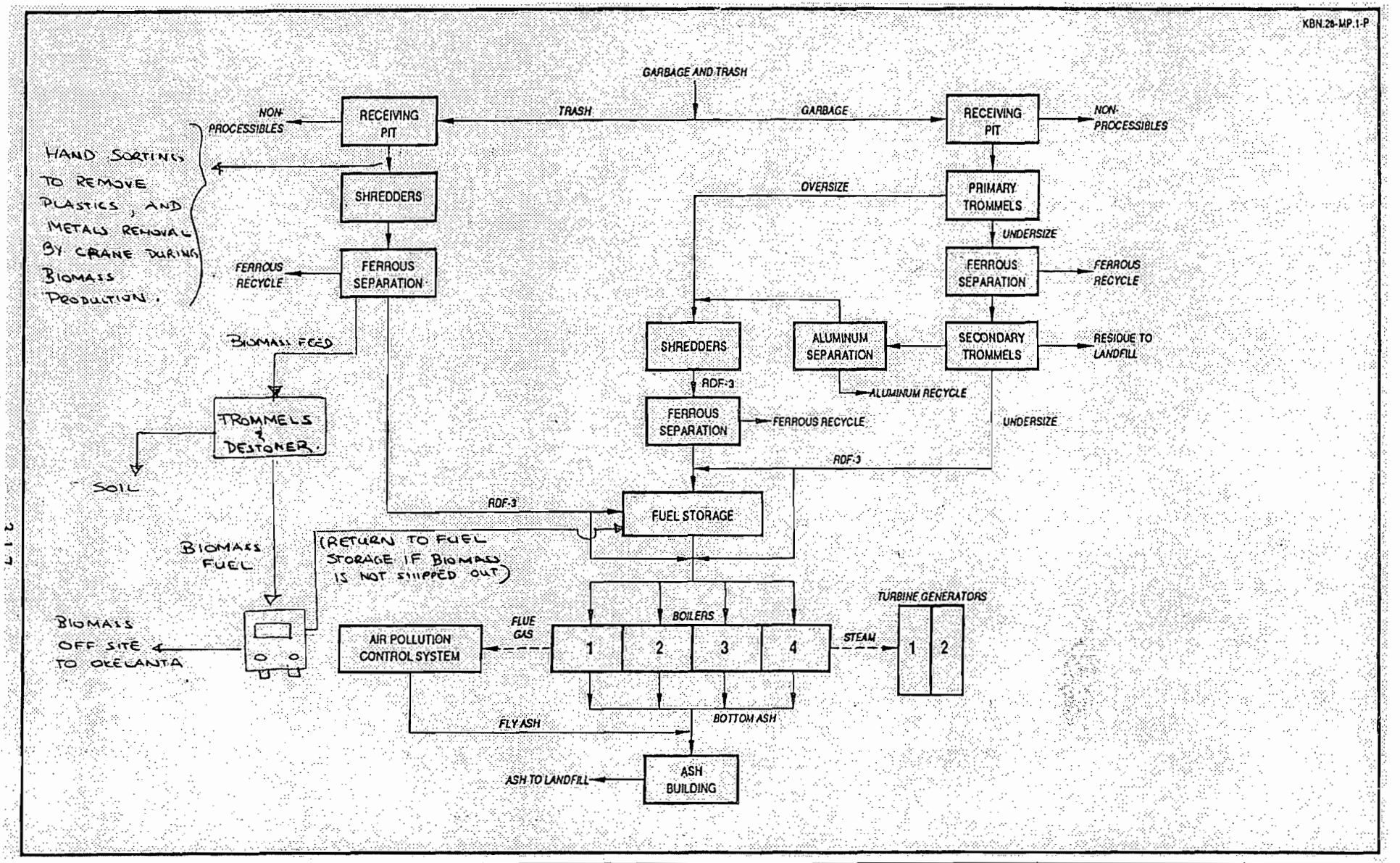

Figure 3.1-2 GENERAL PROCESS FLOW DIAGRAM FOR EXISTING DCRRF
(SHOWING BIOMASS PROCESSING)

Mark up by A. Lue 4/6/99

DADE COUNTY RESOURCES RECOVERY FACILITY CAPITAL EXPANSION PROJECT

Owner: Dade County
Operator: Montenay Power Corp.