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DEC 19 2005



December 15, 2005

BUREAU OF AIR REGULATION

053-7537

Florida Department of Environmental Protection  
2600 Blair Stone Road, MS #5505  
Tallahassee, FL 32399-2400

Attention: Mr. Jeffery Koerner, Air Permitting North

RE: OKEELANTA CORPORATION/NEW HOPE POWER PARTNERSHIP  
PROJECT NOS. 0990005-016-AC AND 0990005-017-AV  
TITLE V PERMIT RENEWAL AND CONCURRENT AIR CONSTRUCTION PERMIT  
REVISION

Dear Mr. Koerner:

Okeelanta Corporation and New Hope Power Partnership (NHPP) have received the Department's request for additional information (RAI) dated June 30, 2005, regarding the Title V renewal application. Each of the Department's requests is answered below, in the same order as they appear in the RAI letter.

1. **Attachment OC-FI-CV6:** This attachment requests several changes to permit conditions that were previously requested, but not granted. For each requested change, provide the current permit condition, the revised permit condition, and the underlying air construction permit or regulatory citation. The Department will consider your requests, but must determine the possible implications from making such changes (i.e., affects on a BACT determination, PSD avoidance, etc.). After this information is provided, I recommend a meeting to resolve the requested changes.

**Response:** The Department requests that Attachment OC-FI-CV6 be revised to identify the current permit condition, the revised permit condition, and the underlying air construction permit. Attached is a revised Attachment OC-FI-CV6, with additional information added. Golder will also be submitting in the near future an electronic markup of the draft Title V permit, with the suggested wording. The electronic markup also will contain reference to the underlying air construction permit associated with each requested change. We would be glad to meet with you to discuss these requested changes.

2. **Attachment OC-FI-CV3a - Compliance Plan:** This attachment identifies potential compliance issues and a plan to regain compliance.
  - a. **Boiler 16:** What is the current operational status for this unit? Describe the operational scenarios during which this boiler is operated, the frequency, and duration. What is the current fuel sulfur content? Was an initial certification of the NO<sub>x</sub> CEMS ever performed and satisfactorily completed?



**b. Central Vacuum System (EU-018): What are the problems with this equipment? Why isn't this equipment being used?**

**Response:**

a. Boiler No. 16 currently operates infrequently as a backup to the cogeneration boilers. During calendar year 2003, Boiler No. 16 operated only 1,224 hours. During 2004, the boiler operated only 20 hours for the sole purpose of conducting a RATA for the nitrogen oxides (NO<sub>x</sub>) continuous emissions monitoring system (CEMS). The boiler has not operated in 2005. The boiler has burned natural gas during the most recent operation, but could burn up to 0.05 percent sulfur fuel oil under its air permit. An initial CEMS certification was performed on the boiler in 2004, except for the 7-day drift test.

Okeelanta is proposing to reduce the permitted annual capacity factor for Boiler No. 16 to 10 percent or less. This will eliminate the NO<sub>x</sub> emission limit and the requirement for a CEMS for NO<sub>x</sub> under Subpart Db. The requirement for a continuous opacity monitoring system (COMS) will remain, but Okeelanta is requesting an Alternative Monitoring Plan consisting of daily visible emissions observations, as has been approved for other similar Subpart Db boilers. An air construction permit application incorporating this change has recently been submitted under separate cover.

b. The main problem with this equipment is that the ductwork from the vacuum points to the control device plugs up with sugar dust. The ductwork needs to be thoroughly cleaned or replaced. Okeelanta may upgrade the ductwork in the future to reduce this problem. At present, Okeelanta is not using this equipment.

**3. CAM Plan**

- a. **Cogeneration Boilers A, B, and C: The indicator for particulate matter is opacity and you have proposed 20% based on a 1-hour block average. Identify other critical parameters for the electrostatic precipitator that may also be included in the CAM plan to ensure continuous compliance with the particulate matter standard.**
- b. **Central Dust Collection System Nos. 1 and 2 (EU-021 and 022) and Cooler No. 2 (EU-024): Explain the problems with "fouling" of the instrument sample line for monitoring the pressure drop across the wet cyclone. What corrective actions could be taken to prevent fouling?**

**Response:**

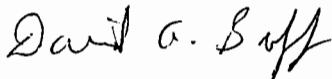
a. In the proposed CAM Plan (May 18, 2005), NHPP submitted opacity data collected during the annual emission compliance tests that establishes a correlation between opacity and particulate matter (PM) emissions (see Figure C-1 in CAM Plan). Based upon this correlation, NHPP believes that opacity is the surrogate that would most accurately reflect compliance with the PM standard. NHPP's operating experience has shown that ESP parameters (i.e., secondary voltage and current, or total secondary power) vary widely and probably would not correlate well as a compliance indicator for PM emissions. This is due to the non-homogeneous characteristics of bagasse and wood fuel fired at the facility. These fuel characteristics include high and low ash content, high and low moisture content, high resistivity versus low resistivity, etc. Therefore, we do not believe there are any ESP parameters which could be reliably included in the CAM Plan.

b. Sugar dust coupled with a very moist environment results in fouling and plugging of small openings. The moist sugar dust, after passing through the wet cyclones, is hygroscopic and very sticky. The small openings of the pressure indicator sample lines therefore plug rapidly. The only way to prevent this would be to implement a highly intensive maintenance program, which would be costly. Also, we believe that since the wet rotoclones are passive devices, the water flow rates to the rotoclones are the primary indicator of PM removal efficiency. For these reasons, it is requested that only water flow rate be the indicator parameter for the CAM Plan.

Note that the wet cyclones have now been replaced by wet rotoclones, as authorized by the Department's letter dated November 16, 2004. The facility plot plan (Attachment OC-FI-C1) has been updated to reflect this, as well as the sugar refinery emissions unit section, and are attached. Also, an updated CAM plan that reflects these revised emissions units is attached. Since visible emissions tests have not yet been conducted on the Wet Rotoclones Nos. 3 and 4, minimum water flow rate values cannot be set. However, these tests will be conducted in the near future and the water flow rates recorded to set the minimum parameter values. The Department may elect to add this item to the compliance plan for Okeelanta, i.e., the requirement and schedule to perform the VE testing and parameter value monitoring for Wet Rotoclones Nos. 3 and 4.

Thank you for consideration of this information. If you have any questions, please do not hesitate to call me at (352)336-5600.

Sincerely,  
GOLDER ASSOCIATES INC.



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

Enclosures

DB/all

cc: Bill Tarr  
Matt Capone  
James Meriwether  
David Dee  
Jose Garcia, PBCHD  
Ron Blackburn, FDEP Ft. Myers

0537537/4.1/RAI L121505.doc

**APPLICATION INFORMATION**

**Professional Engineer Certification**

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

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*

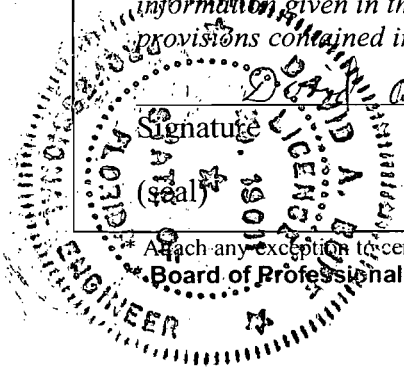
(2) *To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions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

Signature: David A. Buff Date: 12/15/05

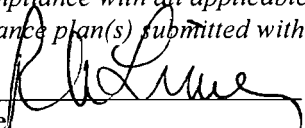


Attach any exception to certification statement.  
Board of Professional Engineers Certificate of Authorization #00001670

## 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: <b>Ricardo A. Lima, Vice President and General Manager</b>
2. Application Responsible Official Qualification (Check one or more of the following options, as applicable): <input checked="" type="checkbox"/> 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. <input type="checkbox"/> For a partnership or sole proprietorship, a general partner or the proprietor, respectively. <input type="checkbox"/> For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official. <input type="checkbox"/> The designated representative at an Acid Rain source.
3. Application Responsible Official Mailing Address... Organization/Firm: <b>Okeelanta Corporation</b> Street Address: <b>21250 U.S. Highway 27 South</b> City: <b>South Bay</b> State: <b>FL</b> Zip Code: <b>33493</b>
4. Application Responsible Official Telephone Numbers... Telephone: <b>(561) 993-1600</b> ext. Fax: <b>(561) 992-7326</b>
5. Application Responsible Official Email Address:
6. Application Responsible Official Certification: <i>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.</i>  Signature:  Date: <u>12-14-05</u>

**ATTACHMENT OC-FI-CV6****REQUESTED CHANGES TO  
CURRENT TITLE V OPERATION PERMIT  
(revised 12-15-2005)**

The current Title V Permit No. 0990005-012-AV for Okeelanta Corporation was issued on March 18, 2004, by the Florida Department of Environmental Protection (FDEP). The permit covers the Okeelanta Corporation (Okeelanta) facilities, including the Okeelanta sugar mill, refinery, and trans-shipment facilities, and the New Hope Power Partnership (NHPP) cogeneration facility. After a draft of the permit was issued on September 12, 2003, Mr. Ricardo Lima of Okeelanta requested some minor changes and clarifications to the permit in a letter to the FDEP dated October 24, 2003. However, a number of these changes were not incorporated into the final permit.

The same changes were also requested in the Title V permit revision application that was submitted to the FDEP in April 2004 for a revision to Boilers A, B, and C, and the material handling and storage operation of the NHPP cogeneration facility. Since a revised Title V permit has not been issued since April 2004, this renewal application for the Title V permit for Okeelanta also requests the same corrections, minor changes and clarifications that have been revised to reflect the most recent changes to the facility.

The following major changes are reflected in this Title V renewal application:

- Revision of the NHPP cogeneration boilers' heat input rates.
- Revision of New Source Performance Standards (NSPS) storage tanks from regulated to unregulated emissions units since they no longer are subject to Subpart Kb. Subpart Kb was revised on October 15, 2003. The tanks are between 75 and 151 cubic meters (m<sup>3</sup>) in size and store volatile organic liquid with a vapor pressure less than 15.0 kiloPascals (kPa).
- Reduction of mercury test frequency for the NHPP cogeneration boilers.
- Incorporation of modifications to the paint spray booth as reflected in air construction permit no. 0990005-015-AC dated November 2, 2005. Updated pages to the paint booth emissions unit section are attached to support this request. It is requested that the revisions to the construction permit be reflected in the renewed Title V permit.
- Incorporation of modifications to the sugar refinery emissions unit reflecting the newly installed wet rotoclones Nos. 3 and 4 that replaced the wet cyclones Nos. 1 and 2, per the

letter of authorization from the FDEP dated November 16, 2004. Updated pages to the sugar refinery emissions unit section and CAM Plan are attached to support this request. It is requested that these revisions be reflected in the renewed Title V permit.

Also included is a revised "Wood, Bagasse, and Ash Inspection and Testing Plan" (Attachment OC-EU5-I5) and an operating procedure (Attachment OC-EU5-ARC) that addresses inclement weather operations for the NHPP cogeneration facility.

The minor changes and clarifications to the existing Title V Permit No. 0990005-012-AV, originally requested in the letter from Mr. Ricardo Lima, Okeelanta, dated October 24, 2003, are presented below:

Referenced attachments made a part of this permit:

Page 2 Comment. Add Appendix CP-1, Compliance Plan, in accordance with Facility-Wide Condition 12.

**SECTION I. Facility Information**

**Subsection A.**

Facility Description

Page 3. New Comment. Deleted "Kb" from fifth paragraph listing of applicable 40 CFR 60 Subparts.

**Subsection B.**

EU ID Nos. & Brief Description

Page 4. New Comment. Change status of the emissions unit (EU) ID Nos. 015, 016, and 017 to Unregulated.

Page 4. Comment I.B.(4). In a letter submitted to the FDEP on March 28, 2003, Okeelanta requested that the permit be revised to change the three sugar silos (EUs 026, 027, and 028) to a single emissions unit with three exhaust points. Since the silos were designed and have always operated as a single automated system, revising the permit in this manner is a more accurate description of the source. It is suggested that the brief description list be revised as follows:

<u>EU ID No.</u>	<u>Status</u>	<u>Brief Description</u>
026	Regulated	Sugar silos (S1101, S1102, and S1103)
027	N/A	Re-designated as part of EU 026
028	N/A	Re-designated as part of EU 026

Page 4. Comment I.B.(2). EU ID No. 045 Brief Description:

Replace “Main Sugar Receiver” with “Powdered Sugar Dryer/Cooler Baghouse.”

Page 4. Comment I.B.(3). EU ID Nos. 045, 046, and 047 should be listed as “Regulated.”

### **Subsection C. Relevant Documents**

Page 6. Comment I.C. Restate EU 045 as “Powdered Sugar Dryer/Cooler Baghouse (EU 045)” for listing permit document “0990005-013-AC, Construction Permit.”

Page 6. New Comment. Add Construction Permit No. 0990005-015-AC to list for EU 048

## **SECTION II. Facility-wide Conditions**

Page 7. Comment II.4. Re-insert wording “when applicable” at the end of paragraph 4(a).

## **SECTION III. Emissions Units and Conditions**

### **Subsection A. Mill Boiler No. 16**

#### Continuous Monitoring Requirements

Page 16. Condition A.10.d. In paragraph “d,” reference to Condition No. 11 should be changed to Condition No. A.7.

Page 17. Condition A.12. In the second sentence, replace “in Appendix XS” with “by Condition A.15.”

#### Recordkeeping and Reporting Requirements

Page 18. Condition A.15. In the third sentence, replace “Appendix XS of this permit” with “40 CFR 60.7 and Figure 1 attached to this permit.”

### **Subsection B. NSPS Storage Tanks**

Pages 19-20. Okeelanta requests that these EUs be deleted and the storage tanks listed as unregulated EUs. The tanks are between 75 and 151 m<sup>3</sup> in size and store volatile organic liquids



with a vapor pressure less than 15.0 kPa, which makes them exempt from Subpart Kb, per the recent revision that took effect on October 15, 2003. The previous comments, submitted prior to this subsection becoming obsolete, are listed below.

#### Emissions Unit Details

Page 19. Condition B.2. Change two references of EU ID No. 033 to 005.

#### Compliance Demonstrations and Periodic Monitoring

Page 20. Condition B.5. Change reference of Condition E.4. to Condition B.4.

Page 20. Condition B.6.b. Change paragraph (b) to delete reference to monitoring and recording of true vapor pressure. This is consistent with Section 2 of the Compliance Plan (Appendix CP-1) made part of this permit by Condition II.12.

#### **Subsection C. Trans-shipment Facility**

Page 21. Brief Description. Okeelanta requests that EU 026 be described as "Sugar Silos (S1101, S1102, and S1103)," and that references to EUs 027 and 028 be deleted. Since the sugar-receiving silos were designed and operate as a single system, revising the permit to one emissions unit including the silos and their three emission points is a more accurate description of the source. EUs 045, 046, and 047 should be added to this subsection.

#### Emissions Unit Details

Page 21. For clarification, it is suggested that the last sentence of the first paragraph be separated from the paragraph and reworded as follows:

"The facility also includes original packaging lines and sugar grinder baghouses, refined sugar-receiving silos, a new powdered sugar dryer/cooler with baghouse, a new sugar grinder with baghouse, and new packaging lines with baghouse."

Page 21. The last sentence of the second paragraph should be deleted since the new packaging lines (EU 047) have no connection to the existing packaging lines (EU 019).

Page 21. The last sentence of the third paragraph should be deleted since the new powdered sugar dryer/cooler with baghouse (EU 045) has no connection to the existing sugar grinder and hopper (EU 020).

Page 21. Designate silos S1101, S1102, and S1103 as EU 026, and delete reference to EUs 027 and 028. Add descriptions for EUs 045, 046, and 047.

#### Construction Restrictions

Page 22. Condition C.1. Please delete this condition since this refers to control equipment specifications that are detailed in the construction application, but have no basis for being permit conditions. If this condition is retained, change both EUs 027 and 028 to 026 in the table. Add descriptions and information for EUs 045, 046, and 047.

#### Essential Potential to Emit (PTE) Parameters

Page 23. Condition C.2. Change EUs 027 and 028 to 026. Add EU 047 with process capacity of 865 tons/day. Add a note at the bottom of the table to indicate that the daily process capacity of 865 tons/day for EUs 019 and 047 is the combined capacity for all packaging lines. Change note (1) for EU 019 to "Maximum Loading to packaging lines 1 through 9."

Page 23. Condition C.3(b). Change to authorize 9 original packaging lines (EU 019) and in addition four new packaging lines (EU047) to operate simultaneously up to the maximum process rate (865 tons/day) specified in Condition C.2.

Page 23. Condition C.3(c). Change to authorize operation of new sugar grinder and hopper (EU 046) in addition to original grinder and hopper (EU 020).

Page 23. Condition C.3(e). Add to authorize operation of new powdered sugar dryer/cooler (EU 045).

Page 23. Condition C.4. Add references to EUs 045, 046, and 047 in authorization to operate continuously.

#### Emission Limitations and Standards

Page 24. Condition C.5. Delete reference to EUs 027 and 028, and add EUs 045, 046, and 047.

Page 24. Condition C.6. Change EU 019 limit to 3.754 tons per year (TPY). Change the limit of EU 020 to 0.060 TPY. Add EU 045 (3.379 TPY), EU 046 (0.676 TPY), and EU 047 (2.253 TPY). (See Attachment OC-EU2-F1.8 submitted with Okeelanta's renewal application to revise the permit for calculations of potential annual emissions from each unit.)

### Compliance Demonstration and Periodic Monitoring

Page 25. Condition C.11. Okeelanta requests that the words “silo loaded” be deleted from paragraph (d). Okeelanta requests that the Title V permit be revised to allow recording of the total amount of sugar transferred to the three silos on a 24-hour basis. There is no corresponding condition in the underlying construction permit (Permit No. 0990005-008-AC) that would require recording sugar transferred to each individual silo. This is consistent with the Compliance Plan (Appendix CP-1) made part of this permit by Condition II.12.

### **Subsection D. Sugar Refinery**

#### Brief Description

Page 26. Change wet cyclone No. 1 and No. 2 to wet rotoclone No. 3 and No. 4, respectively, to reflect the recent changes to the facility.

#### Emissions Unit Details

Page 26. Replace ‘wet cyclones’ with “wet rotoclones” and number appropriately. Update stack heights.

Page 26. Comment III.D. The last paragraph describing EU 035 states incorrectly that the transfer bulk load-out operation is fed from the other bulk load-out operation (EU 034). The description should state that the 4 enclosed conveyors feed sugar in series from the refinery (curing bins or refined sugar storage silo).

#### Construction Restrictions

Page 27. Condition D.1. Please delete this condition since this is referring to control equipment specifications that are detailed in the construction application, but have no basis for being permit conditions.

Page 27. Condition D.1(b). If this condition is retained, the cyclonic control devices include specifications for water injection rate and pressure drop. The specifications should be identical to those identified in the permit application dated October, 2004, to replace the refinery wet cyclones. However, the cyclonic control device specifications were either based on stack tests of manufacturer’s design data or just manufacturer’s design data. Furthermore, measuring the pressure drop continually in these control devices has proven to be impractical due to fouling in the instrument sample lines. Okeelanta has requested that the pressure drop column be deleted

and that only the water injection rate be included in the construction restrictions conditions. The minimum water injection rates should be changed to 2 gallons per minute (gpm) for EUs 021, 022, 023 and 024. This request is consistent with Section 6 of the Compliance Plan (Appendix CP-1) in the Title V permit and the January 2003 conference call with the FDEP and Okeelanta.

#### Essential Potential to Emit (PTE) Parameters

Page 28. Condition D.2. The process rate capacity table is incorrect. There is no basis in the underlying construction permits to impose an hourly process rate restriction to the refinery sources. Therefore, the table should be modified as shown in the markup.

Page 29. Condition D.6(d). The maximum feed rate authorized for the fluidized bed dryer/cooler should be changed to 1,200 TPD as specified in the permit application. Construction Permit No. 0990005-005-AC, dated January 19, 2001, should be referenced.

Page 29. Condition D.7. The previous limitation on hours of operation is obsolete since Permit No. 0990005-005-AC became effective. The operation is limited instead by the new maximum process rates. All refinery equipment should be authorized to operate continuously within the established production limitations.

#### Emission Limitations and Standards

Page 30. Condition D.9. Particulate matter emission limitation should be changed to reflect permit No. 0990005-005-AC and the corresponding permit application. The allowable emission table should be changed as shown in the markup.

#### **Subsection E. Material Handling (Cogeneration Facility)**

Pages 32-36. Comment E. Various references to coal storage and handling should be deleted.

#### **Subsection F. Cogeneration Boilers**

Update this entire section to reflect permit no. PSD-FL-196(O).

#### Compliance Methods and Reporting

Page 48. Comment F.20.b. Mercury emissions are tested annually based on specific condition III.19.b. of permit no. PSD-FL-196(O). Based on the actual test data presented in the following table, the mercury emissions from the cogeneration boiler range between 2.66E-07 and 3.68E-06 pounds per million British thermal units (lb/MMBtu), well below the mercury

## Mercury Emissions

Pollutant	Stack Testing: 02/12/02 - 02/14/02 Post-Mechanical Dust Collectors			Stack Testing: 01/21/03 - 01/23/03 Post-Mechanical Dust Collectors			Stack Testing: 02/11/04 - 02/16/04 Post-Mechanical Dust Collectors			Stack Testing: 02/22/05 - 02/24/05 Post-Mechanical Dust Collectors		
	Unit A Biomass (lb/MMBtu)	Unit B Biomass (lb/MMBtu)	Unit C Biomass (lb/MMBtu)	Unit A Biomass (lb/MMBtu)	Unit B Biomass (lb/MMBtu)	Unit C Biomass (lb/MMBtu)	Unit A Biomass (lb/MMBtu)	Unit B Biomass (lb/MMBtu)	Unit C Biomass (lb/MMBtu)	Unit A Biomass (lb/MMBtu)	Unit B Biomass (lb/MMBtu)	Unit C Biomass (lb/MMBtu)
Particulate (TSP)	0.008	0.010	0.011	0.0089	0.0079	0.0081	0.0068	0.0098	0.0123	0.0162	0.0145	0.0123
Particulate (PM <sub>10</sub> )	0.008	0.010	0.011	--	--	--	--	--	--	--	--	--
VOCs	0.007	0.036	0.020	0.0027	0.0057	0.058	0.0057	0.0067	0.0063	0.0013	0.0190	0.0063
Lead	2.08E-05	1.41E-05	2.09E-05	--	--	--	--	--	--	--	--	--
Mercury	1.65E-06	9.70E-07	3.68E-06	7.55E-07	8.51E-07	1.10E-06	6.24E-07	3.51E-07	6.14E-07	2.66E-07	1.32E-06	6.14E-07

Sources: Air Consulting Engineering, Inc., 2005; Golder, 2005

Note: Biomass firing consisted of approximately 50% wood and 50% bagasse.

TSP = Total suspended particulate.

PM<sub>10</sub> = Particulate matter less than 10 microns.

VOCs = Volatile organic compounds.

emissions limit of  $5.4 \times 10^{-6}$  lb/MMBtu. Based on the consistency of actual emissions, which are well below the allowable emissions, it is requested that mercury be removed from the annual testing requirement. Based on Condition F.20, mercury emissions will be tested every 5 years upon permit renewal. In addition, only one of the three boilers should be required to be tested since all the boilers are identical and are burning the same fuel from a common fuel supply.

### **Subsection G. Paint Booth**

Update this entire section to reflect permit no. 0990005-015-AC.

Page 52. Comment G.2. Delete third and fourth sentences of “Methods of Operation” paragraph to allow different manufacturers and models of the airless paint spray system so long as the airless application system is of equivalent or better efficiency.

### **Subsection H. Common Conditions**

#### EU ID No., Status and Brief Description

Page 56. Comment H(1). The status and description of the retired mill boilers (EUs 003 through 013) should indicate “N/A” and “Shutdown,” consistent with Section I.B. (pages 4 and 5).

Page 56. Comment H(2). Okeelanta has requested that EUs 027 and 028 be redesignated as part of EU 026. Please refer to Comment I.B(1) above.

Page 56. Comment H(3). The Transfer Bulk Load-out Operation EU ID No. should be corrected to 035. EUs 045, 046, 047, and 048 should be added to the list.

## **SECTION IV. ATTACHMENTS**

Please include Appendix CP-1, Compliance Plan, made part of the permit by Facility-wide Condition II.12.

Appendix RBL-001 Comment. This appendix should be updated to include the most recent best available control technology (BACT) determinations for EU 014 on October 29, 2001.

Appendix U-1 Comment. The last two sections of unregulated EUs and/or activities in this appendix (Cogeneration Facility and Trans-shipment Facility) should be assigned new ID numbers that are not assigned to other emissions units listed on Page 4 of the permit.

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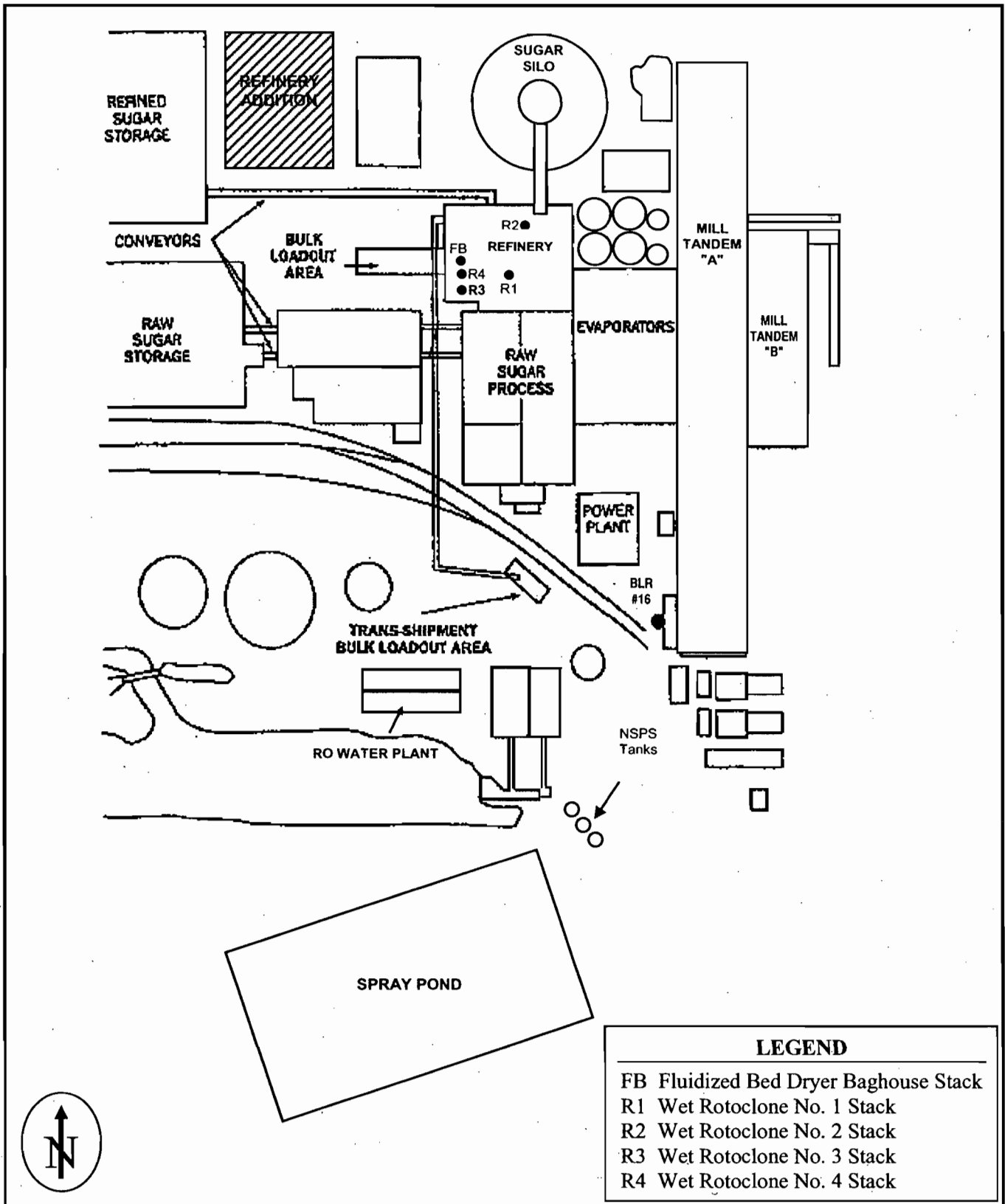
Table of Contents Comment. Suggest referencing Section III.C. as “Trans-shipment Facility” and Section III.D. as “Sugar Refinery.” The page number column information needs to be updated. Please list Appendix CP-1, Compliance Plan.

**REVISIONS TO TITLE V APPLICATION FORMS**



**ATTACHMENT OC-FI-C1**

**FACILITY PLOT PLAN**



Attachment OC-FI-C1  
 Facility Plot Plan of Okeelanta Sugar Mill and Refinery

Note: Plot Plan is a general arrangement for informational purposes only. Plot plan is not to scale



**ATTACHMENT OC-FI-CV6**

**REQUESTED CHANGES TO CURRENT TITLE V  
OPERATION PERMIT**

**ATTACHMENT OC-FI-CV6****REQUESTED CHANGES TO  
CURRENT TITLE V OPERATION PERMIT  
(revised 12-15-2005)**

The current Title V Permit No. 0990005-012-AV for Okeelanta Corporation was issued on March 18, 2004, by the Florida Department of Environmental Protection (FDEP). The permit covers the Okeelanta Corporation (Okeelanta) facilities, including the Okeelanta sugar mill, refinery, and trans-shipment facilities, and the New Hope Power Partnership (NHPP) cogeneration facility. After a draft of the permit was issued on September 12, 2003, Mr. Ricardo Lima of Okeelanta Corporation requested some minor changes/clarification to the permit in a letter to FDEP, dated October 24, 2003. However, a number of these changes were not incorporated into the final permit.

The same changes were also requested in the Title V permit revision application which was submitted to FDEP in April, 2004 for a revision to Boilers A, B, and C, and the material handling and storage operation of the NHPP cogeneration facility. Since a revised Title V permit has not yet been issued since April 2004, this renewal application for the Title V permit for Okeelanta Corporation also requests the same corrections, minor changes and clarifications, which have been revised to reflect the most recent changes to the facility. The following major changes are reflected in this Title V renewal application:

- Revision of the NHPP cogeneration boilers' heat input rates.
- Revision of NSPS storage tanks from regulated to unregulated emissions units, since they are no longer subject to Subpart Kb. Subpart Kb was revised on October 15, 2003. The tanks are between 75 and 151 cubic meters (m<sup>3</sup>) in size and store volatile organic liquid with a vapor pressure less than 15.0 kiloPascals (kPa).
- Reduction of mercury test frequency for the NHPP cogeneration boilers.
- Incorporate modifications to the paint spray booth as reflected in the air construction permit no. 0990005-015-AC dated November 2, 2005. Updated pages to the paint booth emissions unit section are attached to support this request. It is requested that the revisions to the construction permit be reflected in the renewed Title V permit.
- Incorporate modifications to the Sugar Refinery emissions unit, reflecting the newly installed wet rotoclones Nos. 3 and 4, which replaced the Wet Cyclones Nos. 1 and 2, per letter authorization from the Department dated November 16, 2004. Updated pages to the

Sugar Refinery emissions unit section and CAM Plan are attached to support this request. It is requested that these revisions be reflected in the renewed Title V permit.

Also included is a revised "Wood, Bagasse, and Ash Inspection and Testing Plan" (Attachment OC-EU5-I5) and an operating procedure (Attachment OC-EU5-ARC) that addresses inclement weather operations for the NHPP cogeneration facility.

The minor change/clarifications to the existing Title V Permit No. 0990005-012-AV, originally requested in a letter from Mr. Ricardo Lima, Okeelanta Corporation, dated October 24, 2003, are presented below:

Referenced attachments made a part of this permit:

Page 2 Comment. Add Appendix CP-1, Compliance Plan in accordance with Facility-Wide Condition 12.

**SECTION I. Facility Information**

**Subsection A.**

Facility Description

Page 3. New Comment. Deleted "Kb" from 5<sup>th</sup> paragraph listing of applicable 40 CFR 60 Subparts.

**Subsection B.**

EU ID Nos. & Brief Description

Page 4. New Comment. Change status of E.U. ID No.'s 015, 016, & 017 to Unregulated.

Page 4. Comment LB(4). In a letter submitted to FDEP on March 28, 2003, Okeelanta requested that the permit be revised to change the three sugar silos [Emissions Units (EUs) 026, 027, and 028] to a single emissions unit with three exhaust points. Since the silos were designed and have always operated as a single automated system, revising the permit in this manner is a more accurate description of the source. It is suggested that the brief description list be revised as follows:

<u>EU ID No.</u>	<u>Status</u>	<u>Brief Description</u>
026	Regulated	Sugar Silos (S1101, S1102, and S1103)
027	N/A	Re-designated as part of EU 026

028

N/A

Re-designated as part of EU 026

Page 4. Comment I.B.(2). EU ID No. 045 Brief Description:

Replace “Main Sugar Receiver” with “Powdered Sugar Dryer/Cooler Baghouse”.

Page 4. Comment I.B.(3). EU ID Nos. 045, 046, and 047 should be listed as “Regulated”.

### **Subsection C. Relevant Documents**

Page 6. Comment I.C. Re-state EU 045 as “Powdered Sugar Dryer/Cooler Baghouse (EU 045)” for listing permit document “0990005-013-AC, Construction Permit”.

Page 6. New Comment. Add Construction Permit No. 0990005-015-AC to list for E.U. 048

## **SECTION II. Facility-wide Conditions**

Page 7. Comment II.4. Re-insert wording “when applicable” at the end of paragraph 4(a).

## **SECTION III. Emissions Units and Conditions**

### **Subsection A. Mill Boiler No. 16**

#### ***Continuous Monitoring Requirements***

Page 16. Condition A.10.d. In paragraph “d”, reference to Condition No. 11 should be changed to Condition No. A.7.

Page 17. Condition A.12. In the second sentence, replace “in Appendix XS” with “by Condition A.15.”

#### ***Recordkeeping and Reporting Requirements***

Page 18. Condition A.15. In the third sentence replace “Appendix XS of this permit” with “40 CFR 60.7 and Figure 1 attached to this permit”.

### **Subsection B. NSPS Storage Tanks**

Pages 19-20. Okeelanta requests that these emissions units be deleted and the storage tanks listed as unregulated emissions units. The tanks are between 75 and 151 m<sup>3</sup> in size and store volatile organic liquids with a vapor pressure less than 15.0 kPa, which makes them exempt from Subpart Kb recently revised on October 15, 2003. The previous comments, submitted prior to this subsection becoming obsolete, are listed below.

Emissions Unit Details

Page 19. Condition B.2. Change two references to EU ID No. 033 to 005.

Compliance Demonstrations and Periodic Monitoring

Page 20. Condition B.5. Change reference to Condition E.4. to Condition B.4.

Page 20. Condition B.6.b. Change paragraph (b) to delete reference to monitoring and recording of true vapor pressure. This is consistent with Section 2 of the Compliance Plan (Appendix CP-1) made part of this permit by Condition II.12.

**Subsection C. Trans-shipment Facility**

Page 21. Brief Description. Okeelanta requests that EU 026 be described as “Sugar Silos (S1101, S1102, and S1103)”, and that references to EUs 027 and 028 be deleted. Since the sugar-receiving silos were designed and operate as a single system, revising the permit to one emissions unit including the silos and their three emission points is a more accurate description of the source. EUs 045, 046, and 047 should be added to this subsection.

Emissions Unit Details

Page 21. For clarification, it is suggested that the last sentence of the first paragraph be separated from the paragraph and re-worded as follows:

“The facility also includes original packaging lines and sugar grinder baghouses, refined sugar-receiving silos, a new powdered sugar dryer/cooler with baghouse, a new sugar grinder with baghouse, and new packaging lines with baghouse.”

Page 21. The last sentence of the second paragraph should be deleted since the new packaging lines (EU 047) have no connection to the existing packaging lines (EU 019).

Page 21. The last sentence of the third paragraph should be deleted since the new powdered sugar dryer/cooler with baghouse (EU 045) has no connection to the existing sugar grinder and hopper (EU 020).

Page 21. Designate silos S1101, S1102, and S1103 as EU 026, and delete reference to EUs 027 and 028. Add descriptions for EUs 045, 046, and 047.

### Construction Restrictions

Page 22. Condition C.1. Please delete this condition since this is referring to control equipment specifications which are detailed in the construction application, but have no basis for being permit conditions. If this condition is retained, change both EUs 027 and 028 to 026 in the table. Add descriptions and information for EUs 045, 046, and 047.

### Essential Potential to Emit (PTE) Parameters

Page 23. Condition C.2. Change EUs 027 and 028 to 026. Add EU 047 with process capacity of 865 tons/day. Add note at the bottom of the table to indicate that the daily process capacity of 865 tons/day for EUs 019 and 047 is the combined capacity for all packaging lines. Change note (1) for EU 019 to "Maximum Loading to packaging lines 1 through 9."

Page 23. Condition C.3(b). Change to authorize 9 original packaging lines (EU 019) and in addition four new packaging lines (EU047) to operate simultaneously up to the maximum process rate (865 tons/day) specified in Condition C.2.

Page 23. Condition C.3(c). Change to authorize operation of new sugar grinder and hopper (EU 046) in addition to original grinder and hopper (EU 020).

Page 23. Condition C.3(e). Add to authorize operation of new powdered sugar dryer/cooler (EU 045).

Page 23. Condition C.4. Add references to EUs 045, 046, and 047 in authorization to operate continuously.

### Emission Limitations and Standards

Page 24. Condition C.5. Delete reference to EUs 027 and 028, and add EUs 045, 046, and 047.

Page 24. Condition C.6. Change EU 019 limit to 3.754 TPY. Change EU 020 limit to 0.060 TPY. Add EU 045 (3.379 TPY), EU 046 (0.676 TPY), and EU 047 (2.253 TPY). (See Attachment OC-EU2-F1.8 submitted with Okeelanta's renewal application to revise the permit for calculations of potential annual emissions from each unit.)

### Compliance Demonstration and Periodic Monitoring



Page 25. Condition C.11. Okeelanta requests that the words "silo loaded" be deleted from paragraph (d). Okeelanta requests that the Title V permit be revised to allow recording of the total amount of sugar transferred to the three silos on a 24-hour basis. There is no corresponding condition in the underlying construction permit (Permit No. 0990005-008-AC) that would require recording sugar transferred to each individual silo. This is consistent with the Compliance Plan (Appendix CP-1) made part of this permit by Condition II.12.

#### **Subsection D. Sugar Refinery**

##### Brief Description

Page 26. Change Wet Cyclone No. 1 and No. 2 to Wet Rotoclone No. 3 and No. 4, respectively, to reflect the recent changes to the facility.

##### Emissions Unit Details

Page 26. Replace 'wet cyclones' with "wet rotoclones" and number appropriately. Update stack heights.

Page 26. Comment III.D. The last paragraph describing EU 035 states incorrectly that the transfer bulk load-out operation is fed from the other bulk load-out operation (EU 034). The description should state that the four enclosed conveyors in series feed sugar from the refinery (curing bins or refined sugar storage silo).

##### Construction Restrictions

Page 27. Condition D.1. Please delete this condition since this is referring to control equipment specifications which are detailed in the construction application, but have no basis for being permit conditions.

Page 27. Condition D.1(b). If this condition is retained, the cyclonic control devices include specifications for water injection rate and pressure drop. The specifications should be identical to those identified in the permit application dated October, 2004, to replace the refinery wet cyclones. However, the cyclonic control device values were either based on stack tests of manufacturer's design data. Furthermore, measuring the pressure drop continually in these control devices has proven to be impractical due to fouling in the instrument sample lines. Okeelanta has requested that the pressure drop column be deleted and that only the water injection rate be included in the construction restrictions conditions. The minimum water injection rates should be changed to 2 gpm for EUs 021, 022, 023 and 024. This request is consistent with Section 6 of the Compliance Plan (Appendix CP-1) in the Title V permit and the January 2003 conference call with FDEP and Okeelanta.

### Essential Potential to Emit (PTE) Parameters

Page 28. Condition D.2. The process rate capacity table is incorrect. There is no basis in the underlying construction permits to impose an hourly process rate restriction to the refinery sources. Therefore, the table should be modified as shown in the markup.

Page 29. Condition D.6(d). The maximum feed rate authorized for the fluidized bed dryer/cooler should be changed to 1,200 TPD as specified in the permit application. Construction Permit No. 0990005-005-AC, dated January 19, 2001, should be referenced.

Page 29. Condition D.7. The previous limitation on hours of operation is obsolete since Permit No. 0990005-005-AC became effective. The operation is limited instead by the new maximum process rates. All refinery equipment should be authorized to operate continuously within the established production limitations.

### Emission Limitations and Standards

Page 30. Condition D.9. Particulate matter emission limitation should be changed to reflect permit No. 0990005-005-AC and the corresponding permit application. The allowable emission table should be changed as shown in the markup.

### **Subsection E. Material Handling (Cogeneration Facility)**

Pages 32-36. Comment E. Various references to coal storage and handling should be deleted.

### **Subsection F. Cogeneration Boilers**

Update this entire section to reflect permit no. PSD-FL-196(O).

### Compliance Methods and Reporting

Page 48. Comment F.20.b. Mercury emissions are tested annually based on specific condition III.19.b. of permit no. PSD-FL-196(O). Based on the actual test data presented in the following table, the mercury emissions from the cogeneration boiler range between 2.66E-07 to 3.68E-06 lb/MMBtu, well below the mercury emission limit of  $5.4 \times 10^{-6}$  lb/MMBtu. Based on the consistency of actual emissions, which are well below the allowable emissions, it is requested that mercury be removed from the annual testing requirement. Based on Condition F.20, mercury emissions will be tested every 5 years upon permit renewal. In addition, it should only be required to test one of the three boilers, since all boilers are identical and are burning the same fuel from a common fuel supply.

Pollutant	Stack Testing: 02/12/02 - 02/14/02 Post-Mechanical Dust Collectors			Stack Testing: 01/21/03 - 01/23/03 Post-Mechanical Dust Collectors			Stack Testing: 02/11/04 - 02/16/04 Post-Mechanical Dust Collectors			Stack Testing: 02/22/05 - 02/24/05 Post-Mechanical Dust Collectors		
	Unit A Biomass (lb/MMBtu)	Unit B Biomass (lb/MMBtu)	Unit C Biomass (lb/MMBtu)	Unit A Biomass (lb/MMBtu)	Unit B Biomass (lb/MMBtu)	Unit C Biomass (lb/MMBtu)	Unit A Biomass (lb/MMBtu)	Unit B Biomass (lb/MMBtu)	Unit C Biomass (lb/MMBtu)	Unit A Biomass (lb/MMBtu)	Unit B Biomass (lb/MMBtu)	Unit C Biomass (lb/MMBtu)
Particulate (TSP)	0.008	0.010	0.011	0.0089	0.0079	0.0081	0.0068	0.0098	0.0123	0.0162	0.0145	0.0123
Particulate (PM <sub>10</sub> )	0.008	0.010	0.011	--	--	--	--	--	--	--	--	--
VOCs	0.007	0.036	0.020	0.0027	0.0057	0.058	0.0057	0.0067	0.0063	0.0013	0.0190	0.0063
Lead	2.08E-05	1.41E-05	2.09E-05	--	--	--	--	--	--	--	--	--
Mercury	1.65E-06	9.70E-07	3.68E-06	7.55E-07	8.51E-07	1.10E-06	6.24E-07	3.51E-07	6.14E-07	2.66E-07	1.32E-06	6.14E-07

Sources: Air Consulting Engineering, Inc., 2005; Golder, 2005

Note: Biomass firing consisted of approximately 50% wood  
and 50% bagasse.

**Subsection G. Paint Booth**

Update this entire section to reflect permit no. 0990005-015-AC.

Page 52. Comment G.2. Delete third and fourth sentences of "Methods of Operation" paragraph to allow different manufacturers and models of the airless paint spray system as long as the airless application system is of equivalent or better efficiency.

**Subsection H. Common Conditions**EU ID No., Status and Brief Description

Page 56. Comment H(1). The status and description of the retired mill boilers (EUs 003 through 013) should indicate "N/A" and "Shutdown", consistent with Section I.B. (Pages 4 and 5).

Page 56. Comment H(2). Okeelanta has requested that EUs 027 and 028 be re-designated as part of EU 026. Please refer to Comment I.B(1) above.

Page 56. Comment H(3). The Transfer Bulk load-out Operation EU ID No. should be corrected to 035. EUs 045, 046, 047, and 048 should be added to the list.

**SECTION IV. ATTACHMENTS**

Please include Appendix CP-1, Compliance Plan made part of the permit by Facility-wide Condition II.12.

Appendix RBL-001 Comment. This appendix should be updated to include the most recent BACT determinations for EU 014 on October 29, 2001.

Appendix U-1 Comment. The last two sections of unregulated emissions units and/or activities in this appendix (Cogeneration Facility and Trans-shipment Facility) should be assigned new ID numbers that are not assigned to other emissions units listed on Page 4 of the permit.

**TABLE OF CONTENTS**

Table of Contents Comment. Suggest referencing Section III.C. as "Trans-shipment facility" and Section III.D. as "Sugar Refinery". The page number column information needs to be updated. Please list Appendix CP-1, Compliance Plan.

**ATTACHMENT OC-EU3-C15**

**EMISSION POINT INFORMATION**

**ATTACHMENT OC-EU1-C15**  
**EMISSION POINT INFORMATION**

Descriptions of Emissions Points Comprising this Emissions Unit:

- ID    021 Rotary Dryer/Wet Rotoclone No. 1  
       022 Conveying/Wet Rotoclone No. 2  
       023 Cooler No. 1/Wet Rotoclone No. 3  
       024 Cooler No. 2/Wet Rotoclone No. 4  
       025 Fluidized Bed Dryer/Cooler  
       034 Bulk Load-out Operation  
       035 Transfer Bulk Load-out Operation

Emission Point Comment:

1. Identification of Point on Plot Plan or Flow Diagram:

- Bulk Load-Out Area
- Transfer Bulk Load-Out Area
- R3 - Cooler No. 1/Wet Rotoclone No. 3
- R4 - Cooler No. 2/Wet Rotoclone No. 4
- Fluidized Bed Dryer/Cooler Baghouse
- R1 – Rotary Dryer/Wet Rotoclone No. 1
- R2 – Conveying/Wet Rotoclone No. 2

14. Emission Point Comment: Stack parameters above represent average for Cooler No. 1 and No. 2 Wet Rotoclones. This emission unit has five vertical stacks serving individual control equipment and two fugitive emissions sources.

See the following table for stack/vent information for each emission point.

**Stack Parameters for the Okeelanta Sugar Refinery**

EU ID	Stack Description	Stack Height (ft)	Exit Diameter (ft)	Stack Temp (°F)	Actual Volumetric Flow Rate (acfm)	Percent Water Vapor (%)	Maximum Dry Standard Flow Rate (dscfm)
021	Wet Rotoclone No. 1	93 (a)	2.5	100	15,000	NA	NA
022	Wet Rotoclone No. 2	93 (a)	2.5	90	15,000	NA	NA
023	Wet Rotoclone No. 3	93 (a)	2.5	100	15,000	NA	NA
024	Wet Rotoclone No. 4	93 (a)	2.5	100	15,000	NA	NA
025	Fluidized Bed Baghouse	80	7	115	70,620	0.7	64,390

Footnote:

- (a) Estimated height based on best available information.

**ATTACHMENT OC-EU2-F1.8**

**CALCULATION OF EMISSIONS**

Attachment OC-EU3-F1.8a. Annual and Short Term Particulate Matter Emissions from Okeelanta Sugar Refinery Using the Fluidized Bed Drying System  
(Revised 10/14/2004)

Source Emission Point Description	Emission Unit ID	Maximum Refined Sugar Throughput			PM Uncontrolled Emission Factor	Loading to Control Equipment (lb/hr)	Control Efficiency (%)	Maximum Emission Rate (lb/hr)	Maximum Annual Emissions (TPY)
		(TPD)	(lb/hr)	(TPY)					
<b>Particulate Matter (PM)</b>									
Fluidized Bed Baghouse	025	1,200	100,000	390,000	1.5 % <sup>a</sup>	1,500.0	99.80 <sup>b</sup>	3.00	11.70
AAF Skimmer/Wet Rotoclone No.1	021	1,200	100,000	390,000	0.2090 lb/ton <sup>c</sup>	10.45	99.90 <sup>d</sup>	0.0105	0.041
AAF/ Wet Rotoclone No.2	022	1,200	100,000	390,000	0.9407 lb/ton <sup>c</sup>	47.03	99.90 <sup>d</sup>	0.0470	0.183
<b>Total</b>								3.01	11.74
<b>Particulate Matter (PM<sub>10</sub>)</b>									
Fluidized Bed Baghouse	025	1,200	100,000	390,000	0.060 % <sup>e</sup>	60.0	99.80 <sup>b</sup>	0.120	0.4680
AAF Skimmer/Wet Rotoclone No.1	021	1,200	100,000	390,000	0.00836 lb/ton <sup>c</sup>	0.418	99.00 <sup>d</sup>	0.00418	0.0163
AAF/ Wet Rotoclone No.2	022	1,200	100,000	390,000	0.03763 lb/ton <sup>c</sup>	1.881	99.00 <sup>d</sup>	0.01881	0.0734
<b>Total</b>								0.124	0.48

Footnotes:

<sup>a</sup> Based on manufacturers maximum estimated PM inlet loading rate of 1.5 % of throughput rate for fluidized bed dryer/cooler. Factor assumes that all of the fluidized bed dryer/cooler sugar dust is vented to this control device.

<sup>b</sup> Baghouse manufacturers efficiency.

<sup>c</sup> Based on continuous drop emission factors computed from AP-42 (USEPA, 1995) Section 13.2.4.

Formula used with multiple for drop points, Rotoclone No. 1 having 2 drop points and Rotoclone No. 2 with 9 drop points.

$E$  (lb/ton) =  $k \times 0.0032 \times (U/5)^{1.3} / (M/2)^{1.4}$ ; where  $U$  is assumed to be a max of 1 mph due to the building enclosure.

$M$  = Moisture Content = 0.03% for refined sugar.

$k$  = 0.74 for PM

$E$  = 0.104 lb/ton per transfer point/operation, or 0.941 lb/ton for 9 points.

<sup>d</sup> Manufacturers control equipment efficiency rating for total PM = 99.9% and PM<sub>10</sub> = 99.0%.

<sup>e</sup> Based on sugar dust analysis, uncontrolled PM<sub>10</sub> is less than 4% of total sugar dust loading to the control equipment.



Attachment OC-EU3-F1.8b. Annual and Short Term Particulate Matter Emissions from Okeelanta Sugar Refinery Using the Rotary Drying System  
(Revised 10/14/2004)

(Note: This operating scenario represents the worst-case short-term particulate emissions.)

Source Emission Point Description	Emission Unit ID	Maximum Refined Sugar Throughput			PM Uncontrolled Emission Factor	Loading to Control Equipment (lb/hr)	Control Efficiency <sup>c</sup> (%)	Maximum Emission Rate (lb/hr)	Maximum Annual Emissions (TPY)
		(TPD)	(lb/hr)	(TPY)					
<b>Particulate Matter (PM)</b>									
Cooler No. 1 /Rotoclone No. 3	023	1,200	100,000	130,000	0.175 % <sup>a</sup>	175	99.9	0.17	0.23
Cooler No. 2 /Rotoclone No. 4	024	1,200	100,000	130,000	0.175 % <sup>a</sup>	175	99.9	0.17	0.23
AAF Skimmer/Wet Rotoclone No.1 (from dryer)	021	1,200	100,000	130,000	3.150 % <sup>a</sup>	3,150	99.9	3.15	4.09
AAF Skimmer/Wet Rotoclone No.1 (from transfer points)	021	1,200	100,000	130,000	0.2090 lb/ton <sup>b</sup>	10.45	99.9	0.0105	0.014
AAF/Wet Rotoclone No.2	022	1,200	100,000	130,000	0.9407 lb/ton <sup>b</sup>	47.03	99.9	0.0470	0.061
<b>Total</b>								3.56	4.62
<b>Particulate Matter (PM<sub>10</sub>)</b>									
Cooler No. 1 /Rotoclone No. 3	023	1,200	100,000	130,000	0.007 % <sup>d</sup>	7.0	99.0	0.07	0.09
Cooler No. 2 /Rotoclone No. 4	024	1,200	100,000	130,000	0.007 % <sup>d</sup>	7.0	99.0	0.07	0.09
AAF Skimmer/Wet Rotoclone No.1 (from dryer)	021	1,200	100,000	130,000	0.126 % <sup>d</sup>	126.0	99.0	1.26	1.64
AAF Skimmer/Wet Rotoclone No.1 (from transfer points)	021	1,200	100,000	130,000	0.00836 lb/ton <sup>d</sup>	0.418	99.0	0.0042	0.005
AAF/Wet Rotoclone No.2	022	1,200	100,000	130,000	0.03763 lb/ton <sup>d</sup>	1.881	99.0	0.0188	0.024
<b>Total</b>								1.42	1.85

Footnotes:

<sup>a</sup> Based on sugar industry data, uncontrolled sugar dust loading (PM and PM<sub>10</sub>) is a max of 3.5% of the total refined sugar throughput when rotary dryers/coolers are used. Factor assumes that 5% of the uncontrolled sugar dust is vented to each Cooler No. 1 and No. 2 Wet Cyclone and 90% is vented to Wet Rotoclone No. 1.

<sup>b</sup> Wet Rotoclone No. 1 controls 2 transfer points/operations; wet Rotoclone No. 2 controls 9 transfer points/operations. Continuous/batch drop equation from AP-42 (USEPA, 1995) Section 13.2.4. Formula used with multiple for drop points, Rotoclone No. 1 having 2 drop points and Rotoclone No. 2 with 9 drop points.  
 $E \text{ (lb/ton)} = k \times 0.0032 \times (U/5)^{1.3} / (M/2)^{1.4}$ ; where U is assumed to be a max of 1 mph due to the building enclosure.  
M = Moisture Content = 0.03% for refined sugar.  
k = 0.74 for PM  
E = 0.104 lb/ton per transfer point/operation, or 0.941 lb/ton for 9 points.

<sup>c</sup> Manufacturers control equipment efficiency rating for total PM = 99.9% and PM<sub>10</sub> = 99.0%.

<sup>d</sup> Based on sugar dust analysis, uncontrolled PM<sub>10</sub> is less than 4% of total sugar dust loading to the control equipment.

Attachment OC-EU3-F1.8c. Annual and Short Term Particulate Matter Emissions from Okeelanta Sugar Refinery  
Using the Combination of the Fluidized Bed Drying System and the Rotary Drying System (revised 10/14/2004)

Source Emission Point Description	Emission Unit ID	Refined Sugar Throughput <sup>a</sup>		PM Uncontrolled Emission Factor	Loading to Control Equipment (lb/hr)	Control Efficiency (%)	Maximum Emission Rate			
		(TPD)	(lb/hr)				(TPY)	(lb/hr)	(TPY)	
<u>Particulate Matter (PM)</u>										
<u>Fluidized Bed Drying System</u>										
Fluidized Bed Baghouse	025	1,050	87,500	260,000	1.5 %	1312.5	99.8	2.63	7.80	
<u>Rotary Drying System</u>										
Cooler No. 1 / Rotoclone No. 3	023	450	37,500	130,000	0.175 %	65.63	99.9	0.07	0.23	
Cooler No. 2 / Rotoclone No. 4	024	450	37,500	130,000	0.175 %	65.63	99.9	0.07	0.23	
AAF Skimmer/Wet Rotoclone No.1 (from dryer)	021	450	37,500	130,000	3.150 %	1,181.3	99.9	1.18	4.09	
<u>Material Handling</u>										
AAF Skimmer/Wet Rotoclone No.1 (from transfer points)	021	1,500	125,000	390,000	0.2090 lb/ton	13.06	99.9	0.0131	0.0408	
AAF/Wet Rotoclone No.2	022	1,500	125,000	390,000	0.9407 lb/ton	58.79	99.9	0.0588	0.1834	
								Total	4.01	12.57
<u>Particulate Matter (PM<sub>10</sub>)</u>										
<u>Fluidized Bed Drying System</u>										
Fluidized Bed Baghouse	025	1,050	87,500	260,000	0.060 %	52.50	99.8	0.105	0.31	
<u>Rotary Drying System</u>										
Cooler No. 1 / Rotoclone No. 3	023	450	37,500	130,000	0.007 %	2.63	99.0	0.03	0.09	
Cooler No. 2 / Rotoclone No. 4	024	450	37,500	130,000	0.007 %	2.63	99.0	0.03	0.09	
AAF Skimmer/Wet Rotoclone No.1 (from dryer)	021	450	37,500	130,000	0.126 %	47.25	99.0	0.47	1.64	
<u>Material Handling</u>										
AAF Skimmer/Wet Rotoclone No.1 (from transfer points)	021	1,500	125,000	390,000	0.00836 lb/ton	0.523	99.0	0.0052	0.0163	
AAF/Wet Rotoclone No.2	022	1,500	125,000	390,000	0.03763 lb/ton	2.352	99.0	0.0235	0.0734	
								Total	0.63	2.22

Note: See Attachments OC-EU3-G8a and OC-EU3-G8b for footnotes concerning emission factors and control efficiencies.

<sup>a</sup> Based on 1,500 tons/day (TPD) throughput as a combined operation potential maximum for the refinery.

Attachment OC-EU3-F1.8d. Annual and Short Term Particulate Matter Emissions from Okeelanta Sugar Refinery Bulk and Transfer Load-out Operations (Revised 10/14/04)

Source Emission Point Description	Emission Unit ID	Maximum Refined Sugar Throughput <sup>a</sup>			PM Uncontrolled Emission Factor	Uncontrolled PM Emissions (lb/hr)	Control Efficiency (%)	Maximum Emission Rate (lb/hr)	Annual Emissions (TPY)
		(TPD)	(lb/hr)	(TPY)					
<b>Particulate Matter (PM)</b>									
Bulk load-out Operations	034	600	88,000	117,000	0.105 lb/ton <sup>b</sup>	4.60	50 <sup>d</sup>	2.30	3.06
Transfer Bulk Load-out Operations	035	1,200	144,000	273,000	0.105 lb/ton <sup>b</sup>	7.53	90 <sup>d</sup>	0.75	1.43
<b>Total</b>								3.05	4.48
<b>Particulate Matter (PM<sub>10</sub>)</b>									
Bulk load-out Operations	034	600	88,000	117,000	0.00418 lb/ton <sup>c</sup>	0.184	50 <sup>d</sup>	0.092	0.12
Transfer Bulk Load-out Operations	035	1,200	144,000	273,000	0.00418 lb/ton <sup>c</sup>	0.301	90 <sup>d</sup>	0.030	0.06
<b>Total</b>								0.122	0.18

<sup>a</sup> Throughput based on 1,800 tons/day (TPD) and 390,000 tons/yr (TPY), with 30/70% split between the Bulk and Transfer Bulk load-out operations.

<sup>b</sup> Bulk load-out operations continuous drop emission factors are computed from AP-42 (USEPA, 1995) Section 13.2.4.  
 $E \text{ (lb/ton)} = k \times 0.0032 \times (U/5)^{1.3} / (M/2)^{1.4}$ ; where U is assumed to be a max of 1 mph due to the building enclosure.  
M = Moisture Content = 0.03% for refined sugar.  
k = 0.74 for PM

<sup>c</sup> PM<sub>10</sub>, based on sugar dust analysis, is less than 4% of total sugar dust loading.

<sup>d</sup> Represents assumed control efficiency achieved from the building load-out enclosure. Transfer bulk load-out control efficiency is higher than bulk load-out building due to improved design and operating procedures.

Attachment OC-EU3-F1.8e. Summary of Maximum Annual and Short Term Particulate Matter Emissions from  
Okeelanta Sugar Refinery

Source Emission Point Description	Emission Unit ID	Individual EU Maximum Emissions		Overall Maximum Emissions	
		lb/hr	TPY	lb/hr	TPY
<b><u>Particulate Matter (PM)<sup>a</sup></u></b>					
<b><u>Fluidized Bed Drying System</u></b>					
Fluidized Bed Baghouse	025	3.00	11.70	2.63	7.80
<b><u>Rotary Drying System</u></b>					
Cooler No. 1 / Wet Rotoclone No. 3	023	0.17	0.23	0.07	0.23
Cooler No. 2 / Wet Rotoclone No. 4	024	0.17	0.23	0.07	0.23
AAF Skimmer/Wet Rotoclone No.1 (from dryer)	021	3.15	4.09	3.15	4.09
<b><u>Material Handling</u></b>					
AAF Skimmer/Wet Rotoclone No.1 (from transfer points)	021	0.01	0.04	0.01	0.04
AAF/Wet Rotoclone No.2	022	0.06	0.18	0.05	0.18
<b><u>Bulk and Transfer Load-Out Operations</u></b>					
Bulk load-out Operations	034	2.30	3.06	2.30	3.06
Transfer Bulk Load-out Operations	035	0.75	1.43	0.75	1.43
	<b>Total</b>	--	--	<b>7.06</b>	<b>17.06</b>
<b><u>Particulate Matter (PM<sub>10</sub>)<sup>b</sup></u></b>					
<b><u>Fluidized Bed Drying System</u></b>					
Fluidized Bed Baghouse	025	0.12	0.47	--	0.31
<b><u>Rotary Drying System</u></b>					
Cooler No. 1 / Wet Rotoclone No. 3	023	0.07	0.09	0.07	0.09
Cooler No. 2 / Wet Rotoclone No. 4	024	0.07	0.09	0.07	0.09
AAF Skimmer/Wet Rotoclone No.1 (from dryer)	021	1.26	1.64	1.26	1.64
<b><u>Material Handling</u></b>					
AAF Skimmer/Wet Rotoclone No.1 (from transfer points)	021	0.005	0.016	0.004	0.016
AAF/Wet Rotoclone No.2	022	0.024	0.073	0.019	0.073
<b><u>Bulk and Transfer Load-Out Operations</u></b>					
Bulk load-out Operations	034	0.09	0.12	0.09	0.12
Transfer Bulk Load-out Operations	035	0.03	0.06	0.03	0.06
	<b>Total</b>	--	--	<b>1.54</b>	<b>2.40</b>

<sup>a</sup> Maximum emissions occur when using the combination of the Fluidized Bed and Rotary drying systems.

<sup>b</sup> Maximum hourly emissions occur when using the Rotary drying system  
Maximum overall annual emissions occur when using the combination of the Fluidized Bed and Rotary drying systems.

Attachment OC-EU3-F1.8f. Annual and Short Term Emissions of VOCs from Sugar Refinery Chemical Usage

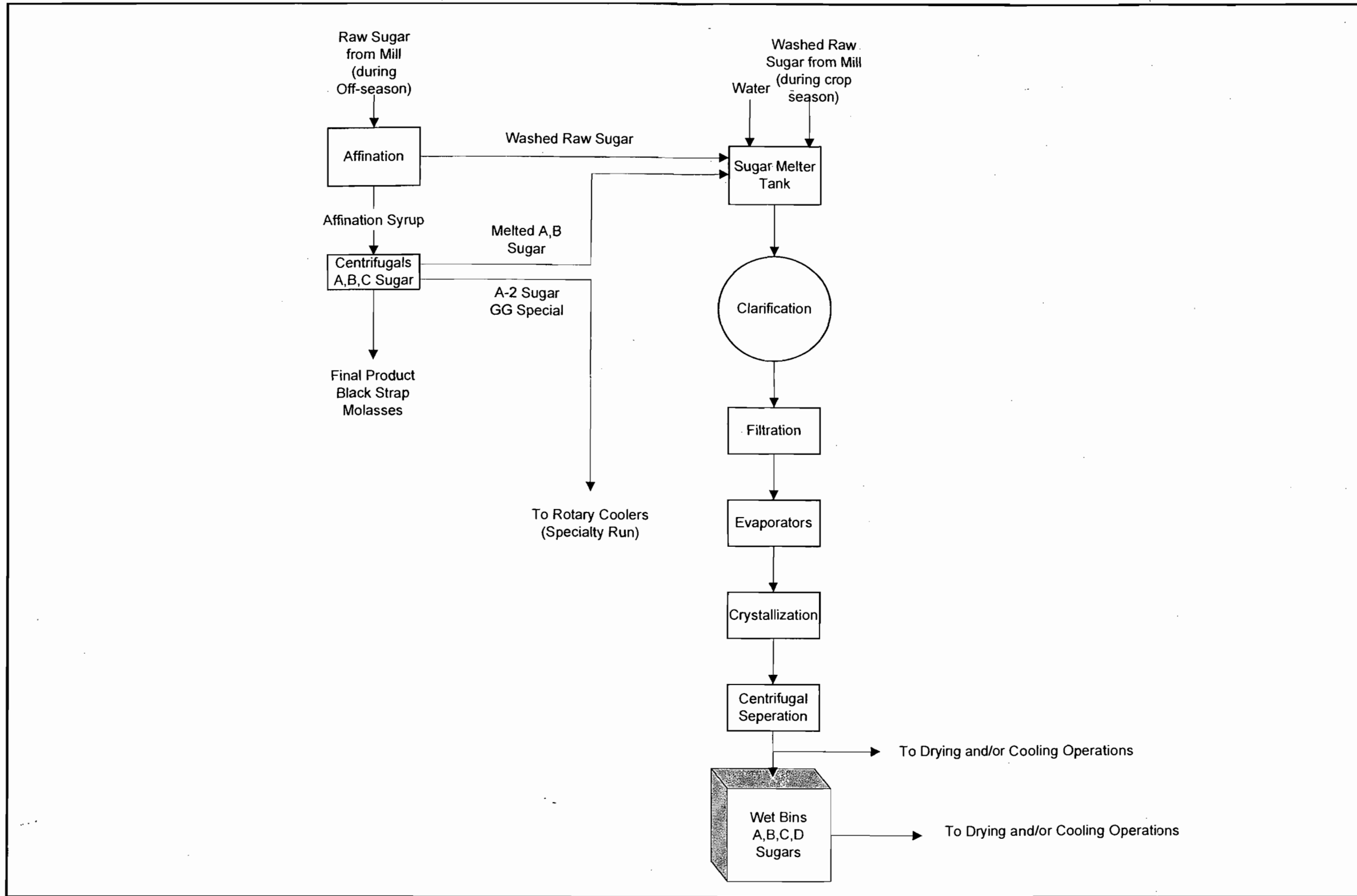
Material	Chemical	VOC Content	Potential	
			Chemical Usage <sup>a</sup> (lb/yr)	VOC Emissions (TPY)
Pure Isopropyl Alcohol	Isopropyl Alcohol	100%	77,500	38.75
Rodine 213	Isopropyl Alcohol	15%	3,000	0.225
	Propargyl Alcohol	3%	3,000	0.045
Total VOCs =			11.54 lb/hr <sup>b</sup>	39.02 TPY

<sup>a</sup> Based on mill estimates for maximum usage rates.

<sup>b</sup> Based on an average 6762 hours per year for the dryers during 1998 and 1999 operation, assuming that 100% of compound is emitted to the atmosphere.

**ATTACHMENT OC-EU3-I1**

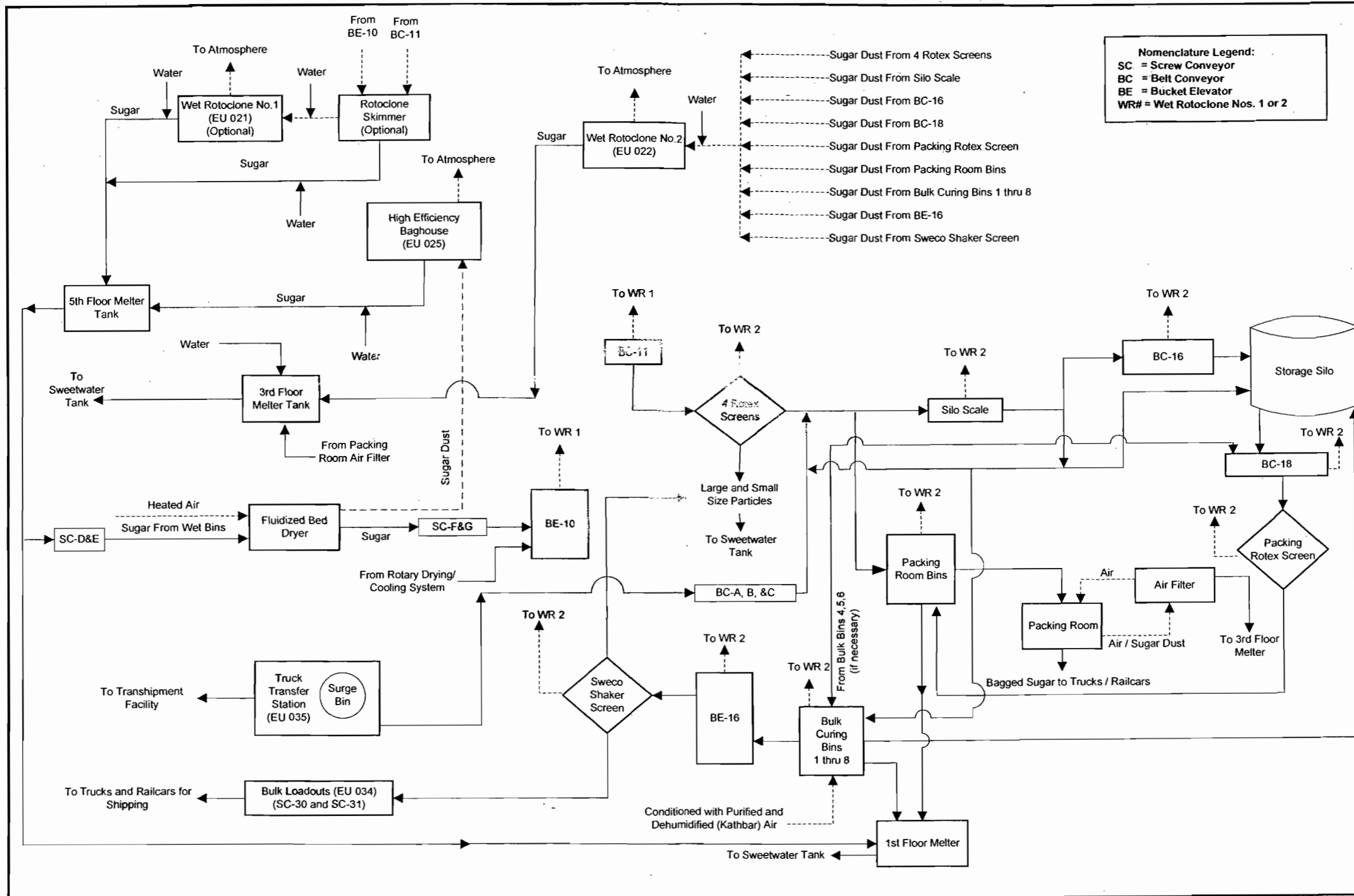
**PROCESS FLOW DIAGRAM**



Attachment OC-EU1-11a. Process Flow Diagram  
 Sugar Mill Refinery Expansion  
 Florida Crystals Refinery  
 South Bay, Florida

**Process Flow Legend**  
 Solid/Liquid ———→  
 Gas - - - - -→



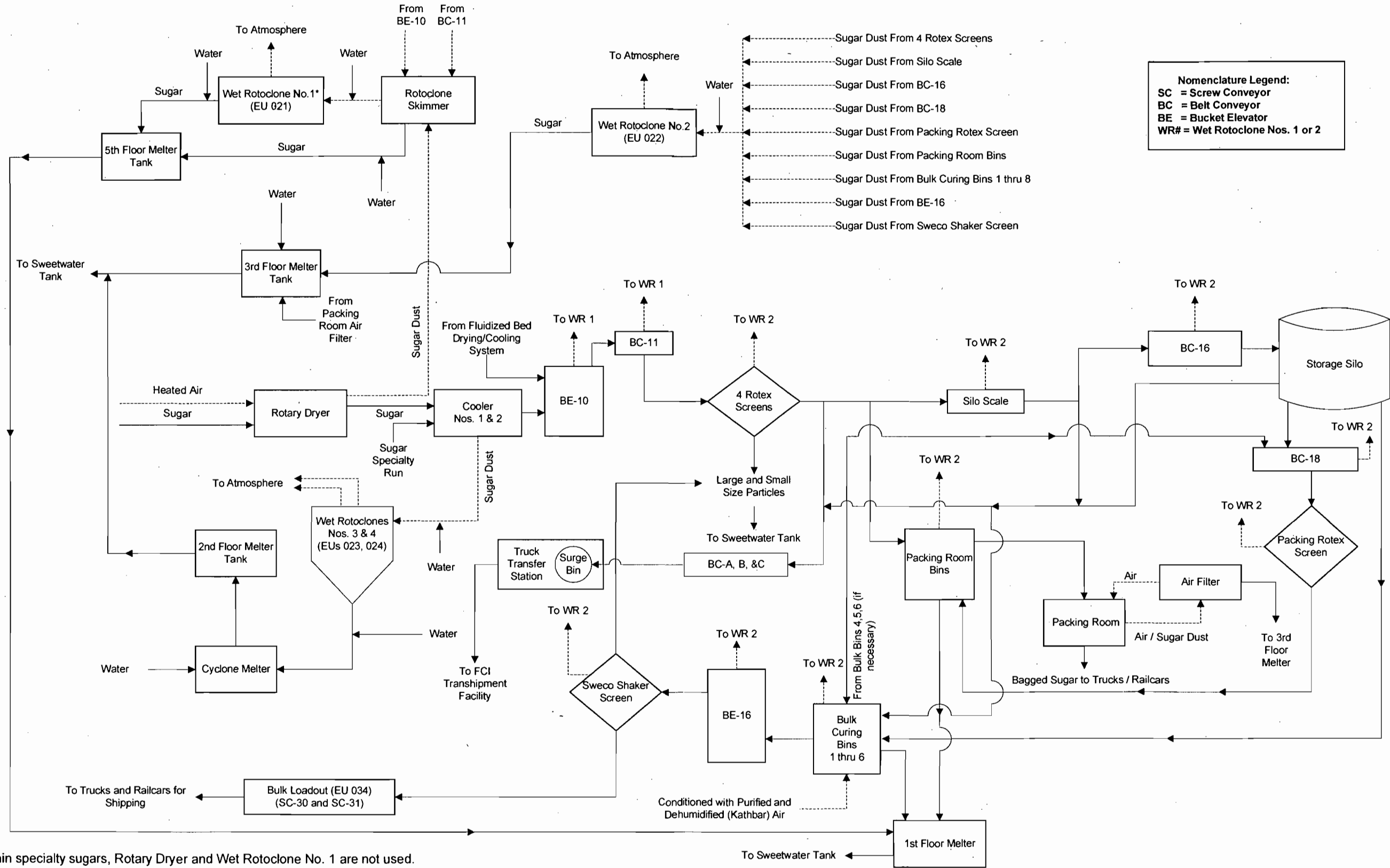


Attachment OC-EU1-I1b. Process Flow Diagram  
 Refinery Operations with Fluidized Bed Dryer/Cooler  
 Okeelanta Refinery  
 South Bay, Florida

**Process Flow Legend**  
 Solid/Liquid ———→  
 Gas - - - - -→







**Nomenclature Legend:**  
 SC = Screw Conveyor  
 BC = Belt Conveyor  
 BE = Bucket Elevator  
 WR# = Wet Rotoclone Nos. 1 or 2

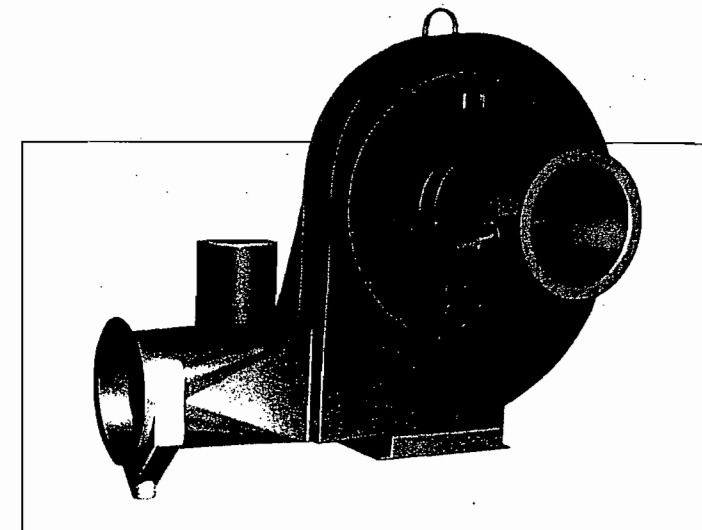
- Sugar Dust From 4 Rotex Screens
- Sugar Dust From Silo Scale
- Sugar Dust From BC-16
- Sugar Dust From BC-18
- Sugar Dust From Packing Rotex Screen
- Sugar Dust From Packing Room Bins
- Sugar Dust From Bulk Curing Bins 1 thru 8
- Sugar Dust From BE-16
- Sugar Dust From Sweco Shaker Screen

\* For certain specialty sugars, Rotary Dryer and Wet Rotoclone No. 1 are not used.

Attachment OC-EU1-11c. Process Flow Diagram  
 Refinery Operations with Rotary Dryer/Coolers  
 Okeelanta Refinery  
 South Bay, Florida

**Process Flow Legend**  
 Solid/Liquid ———→  
 Gas -----→



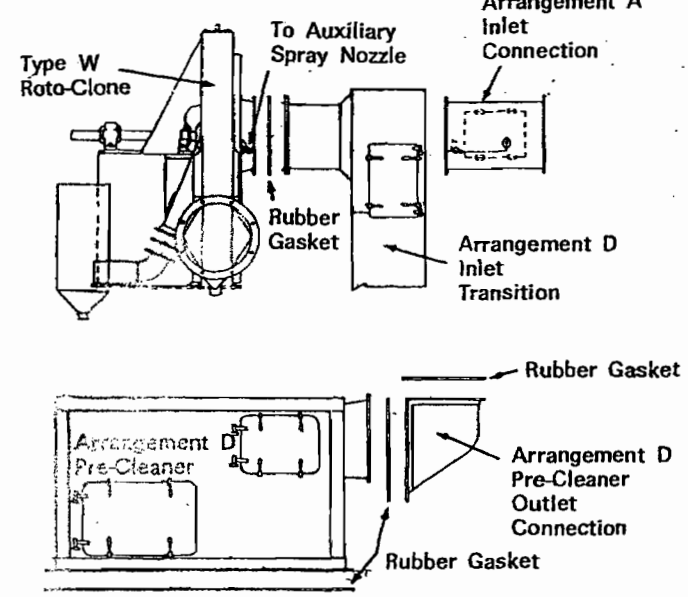


# Type W RotoClone

WET  
CENTRIFUGAL  
COLLECTOR

Capacity in C.F.M.	Inlet Velocity F.P.M.	TOTAL PRESSURE OF SYSTEM—INCHES W. G.																	
		2"		3"		4"		5"		6"		7"		8"		9"			
		R.P.M.	B.H.P.	R.P.M.	B.H.P.	R.P.M.	B.H.P.	R.P.M.	B.H.P.	R.P.M.	B.H.P.	R.P.M.	B.H.P.	R.P.M.	B.H.P.	R.P.M.	B.H.P.	R.P.M.	B.H.P.
9000	2860	570	8.5	655	12.0	743	14.0	815	18.0	890	22.0	955	25.0	1020	28.0	1075	32.0		
9500	3020	575	9.0	665	13.0	750	16.0	825	19.0	895	23.0	960	26.0	1025	29.0	1080	33.0		
10000	3180	585	11.0	675	14.0	755	17.0	830	20.0	900	24.0	965	27.0	1030	31.0	1085	35.0		
11000	3500	605	13.0	695	16.0	770	18.0	840	23.0	910	27.0	970	31.0	1035	35.0	1090	38.0		
12000	3820	630	14.0	710	18.0	785	22.0	855	26.0	920	30.0	985	34.0	1040	38.0	1095	42.0		
13000	4140	650	17.0	737	21.0	800	25.0	870	28.0	935	34.0	995	38.0	1055	43.0	1110	47.0		
14000	4460	675	19.0	755	23.0	820	28.0	887	32.0	950	38.0	1010	42.0	1065	47.0	1120	51.0		
15000	4780	710	23.0	780	27.0	840	32.0	905	36.0	965	42.0	1025	46.0	1080	51.0	1130	56.0		
15500	4940	735	25.0	795	29.0	850	34.0	915	39.0	975	44.0	1030	49.0	1085	54.0	1135	59.0		

**ROTO-CLONE ERECTION DIAGRAM**  
Arrangements A and D



**TABLE A**  
NORMAL WATER SUPPLY RATES  
TYPE W ROTO-CLONES

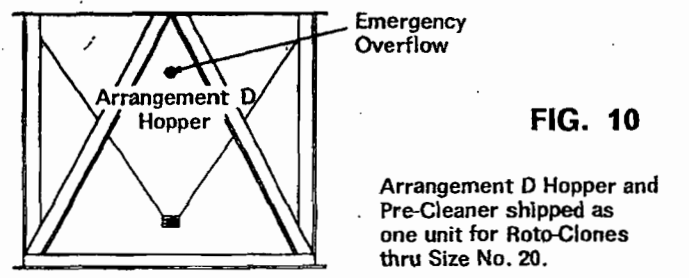
Roto-Clone Size	Arrangement A GPM Supplied			Arrangement D GPM Supplied		
	40 PSIG	50 PSIG	60 PSIG	40 PSIG	50 PSIG	60 PSIG
8	1.1	1.2	1.3	2.1	2.2	2.5
10	1.5	1.6	1.8	3.1	3.4	3.8
12	1.8	2.0	2.2	4.6	5.0	5.4
14	2.3	2.5	2.9	5.1	5.5	6.3
16	3.4	3.7	4.1	7.2	7.9	8.7
20	4.4	4.8	5.4	8.2	9.0	10.0
24	5.4	6.0	6.5	13.2	14.9	16.1
27	7.4	8.2	8.9	—	—	—
30	7.9	8.8	9.7	—	—	—
33	11.9	13.3	14.6	—	—	—
36	13.9	15.7	17.0	—	—	—
45	20.9	25.1	25.2	—	—	—

NOTE: 1: For air temperatures in excess of 300°F, cooling spray nozzles should be provided in inlet duct to compensate for evaporation. A safe approximation will be 0.2 gpm of additional water per 1000 cfm for each 100°F temperature reduction.

**TABLE B**  
SHIPPING AND OPERATING WEIGHTS

Roto-Clone Size	Arrangement A		Arrangement D	
	Shipping Weight (lbs.)	Operating Weight (lbs.)	Shipping Weight (lbs.)	Operating Weight (lbs.)
8	225	425	1,725	2,625
10	360	610	1,810	3,010
12	630	880	2,030	3,380
14	990	1,340	2,790	5,320
16	1,260	1,710	3,760	6,310
20	1,620	2,270	5,420	9,650
24	1,890	2,590	7,190	13,290
27	2,970	3,720	—	—
30	3,870	5,020	—	—
33	4,860	6,360	—	—
36	5,850	7,350	—	—
45	13,500	16,000	—	—

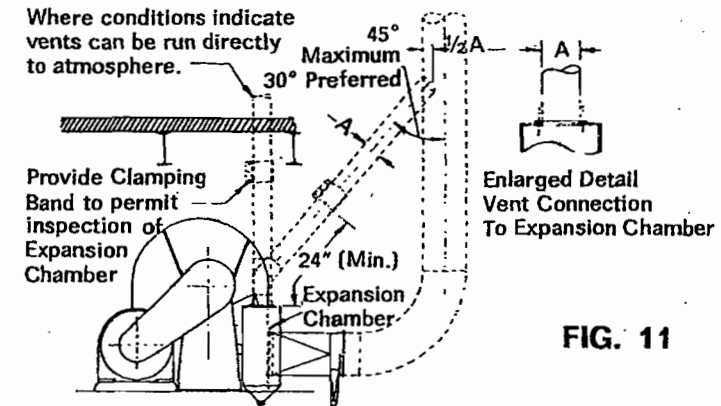
NOTE 1: Shipping weight does not include motor and drive.  
NOTE 2: Operating weight includes motor and drive for Arrangements "A" and "D". Also includes maximum sludge capacity based on 100 lbs. per cubic foot for Arrangement D hopper in the event of plugged drain line.



**FIG. 10**

Arrangement D Hopper and Pre-Cleaner shipped as one unit for Roto-Clones thru Size No. 20.

**VENTING SECONDARY AIR**



**FIG. 11**

**DIMENSION TABLE IN INCHES**

R. C. Size	8	10	12	14	16	20	24	27	30	33	36	45
Vent Dia. "A"	3 1/2"	4"	5"	6"	7"	8"	10"	11"	12"	14"	15"	18"

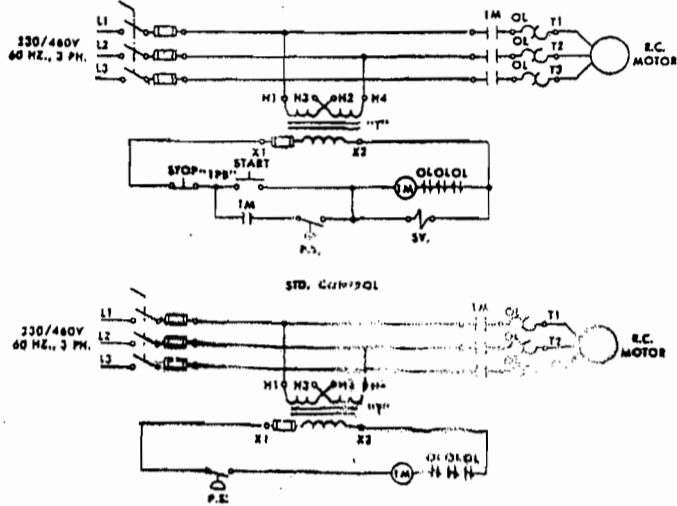
**TABLE C**  
TYPE W ROTO-CLONE  
IMPELLER CHARACTERISTICS

Roto-Clone Size	Maximum Speed (RPM)	Fly Wheel Effect - W <sup>2</sup> (Lb. - Ft. <sup>2</sup> )
8	4100	2.03
10	3300	6.28
12	2800	14.7
14	2400	30.7
16	2100	50.8
20	1700	150.8
24	1400	372.0
27	1250	596.0
30	1100	1026.0
33	1000	1400.0
36	925	2410.0
45	730	6250.0

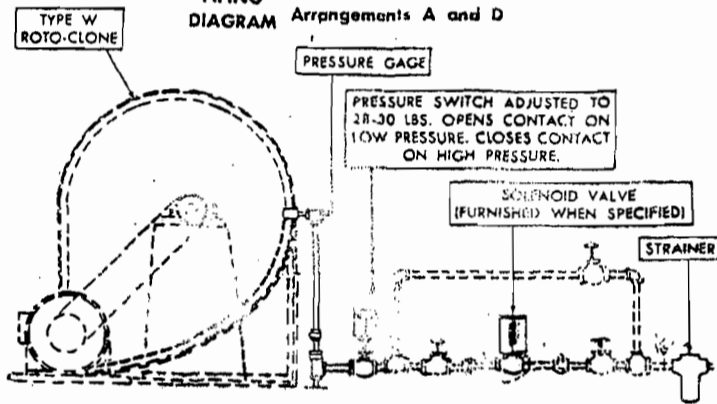
**WIRING DIAGRAM**

**FIG. 6**

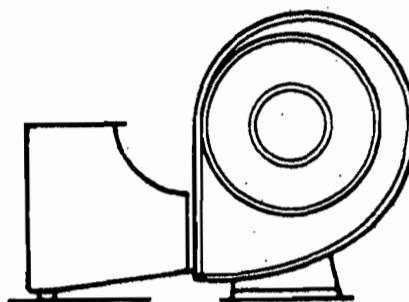
WITH MOD. "SV" CONTROL



**PIPING DIAGRAM** Arrangements A and D



**90° OUTLET ELBOW**



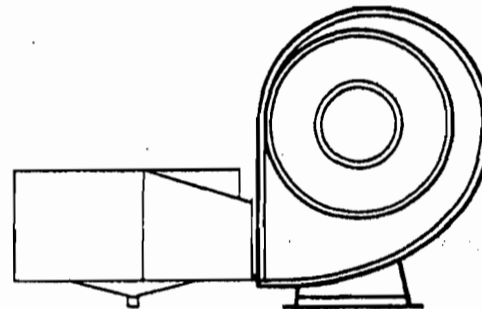
The 90° outlet elbow is recommended where a vertical stack is required immediately at the Roto-Clone discharge. Refer to Drawing 48P-870790 for dimensions.

**FIG. 6**

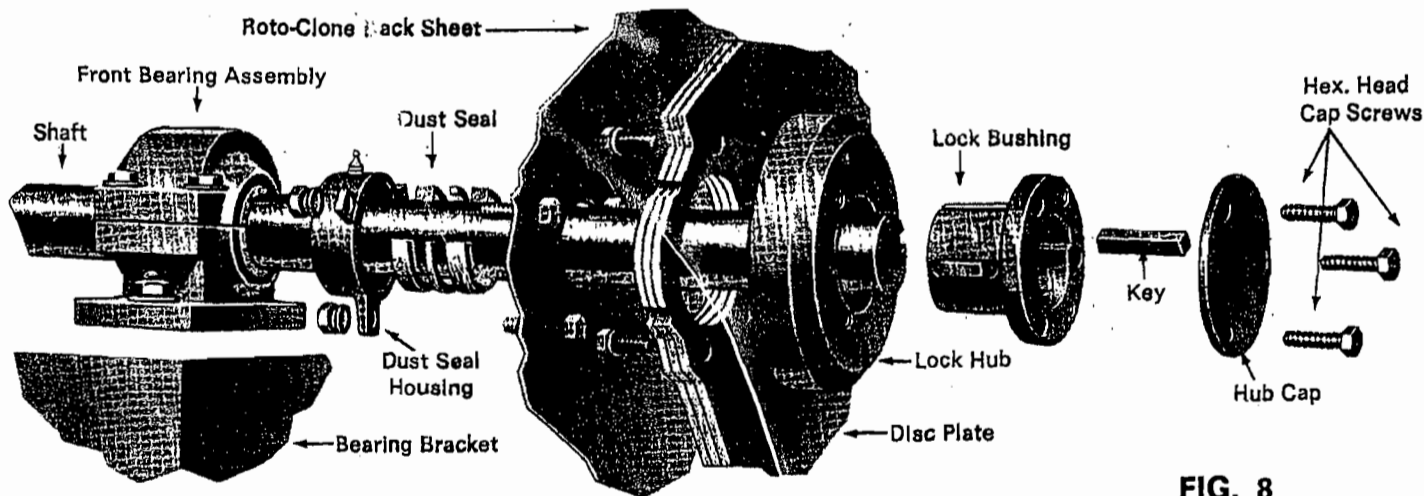
**CENTRIFUGAL OUTLET**

The centrifugal outlet is recommended where cleaned air is recirculated back to work area or where corrosive mists may be exhausted. It protects against possible damage from occasional water droplets. The centrifugal outlet replaces and is interchangeable with the standard air outlet. Ask for Drawing 48P-1023266 showing dimensions of this accessory.

If the centrifugal outlet is used there is an additional loss of 2VP based on the inlet velocity of the Type W Roto-Clone.



**FIG. 7**



**FIG. 8**

**SHAFT ASSEMBLY**

Construction details of Type W Roto-Clone shaft assembly showing heavy duty bearings, oversized shaft, watertight, shaft seal, laminated impeller disc, and cast iron hub with taper lock for easy impeller removal.



# ARRANGEMENT A

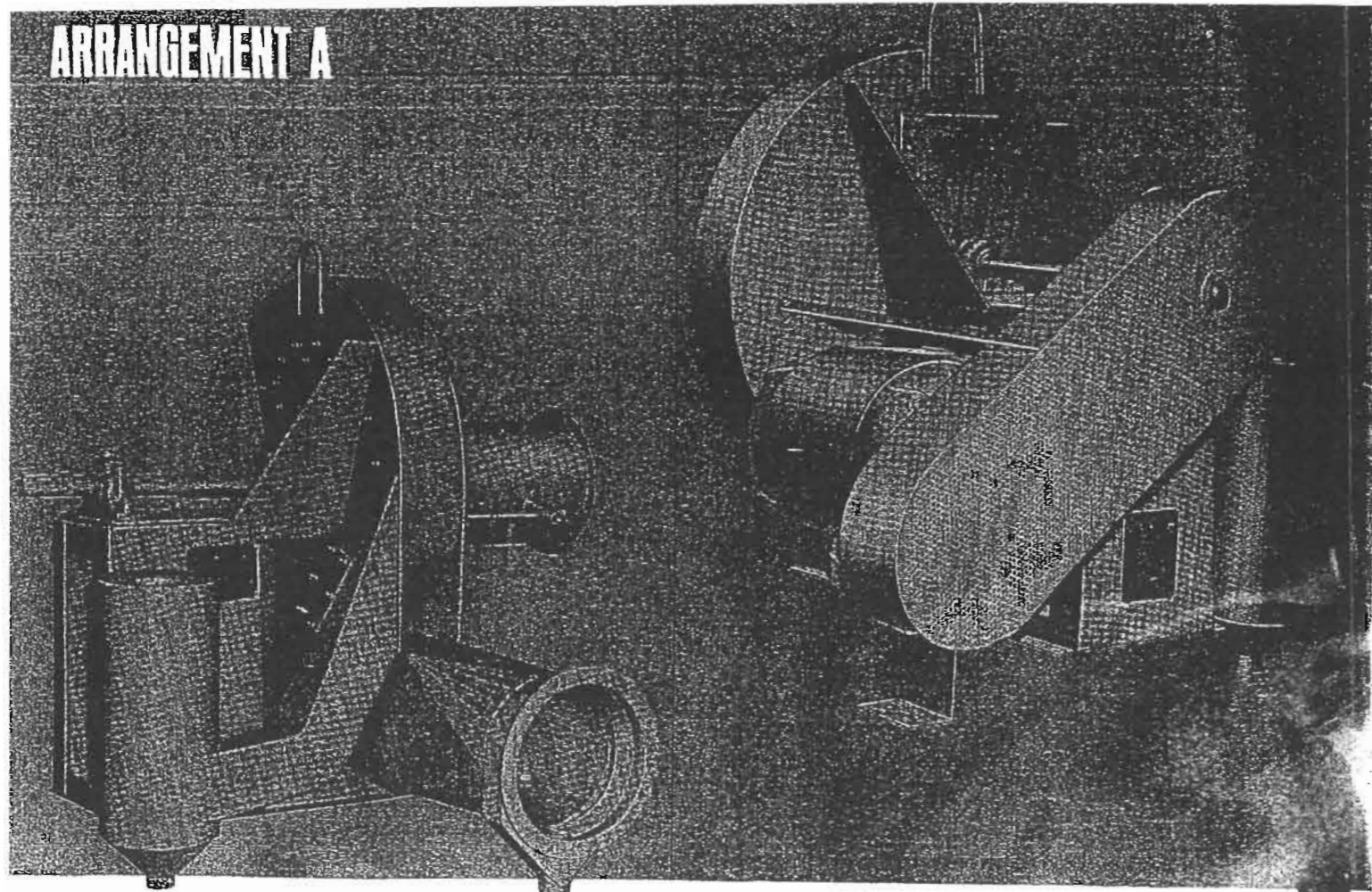


FIG. 2

Type W Roto-Clone, Arrangement A, from drive side. Clean air outlet may be horizontal duct, as shown, or rectangular elbow.

The Type W Roto-Clone, Arrangement A, is recommended for the collection of light loadings of granular dusts and mist. Dynamic forces developed by the rotating impeller cause even the finest particles to impinge on and be trapped by the flowing water film which covers all blade surfaces. The slurry formed by water and collected dust drains from the bottom of the Roto-Clone expansion chamber (see Figure 1). Slurry may be piped to a sump or sewer, returned to process, or discharged to a settling tank where the collected solids precipitate by gravity and clear water overflows to the sewer or drain.

The Type W Roto-Clone has the performance characteristics of a centrifugal fan. The relation between pressure, volume, and horsepower follows the standard laws of fan performance. Maximum operating speeds are shown in Table C, page 11.

If high temperature, corrosive, or toxic exhaust gases are cleaned, the expansion chamber should be vented to the outside of the building as illustrated in Figure 11, page 11.

FIG. 3

Type W Roto-Clone, Arrangement A, is available in Arrangement 9 motor mounting where dimensions permit mounting motor on bearing pedestal.

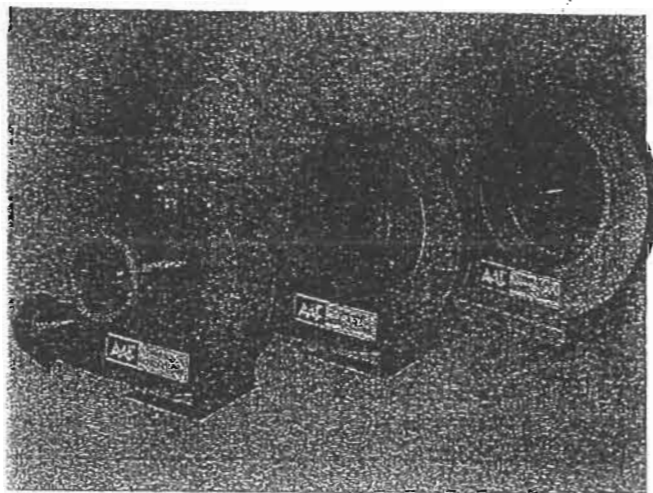
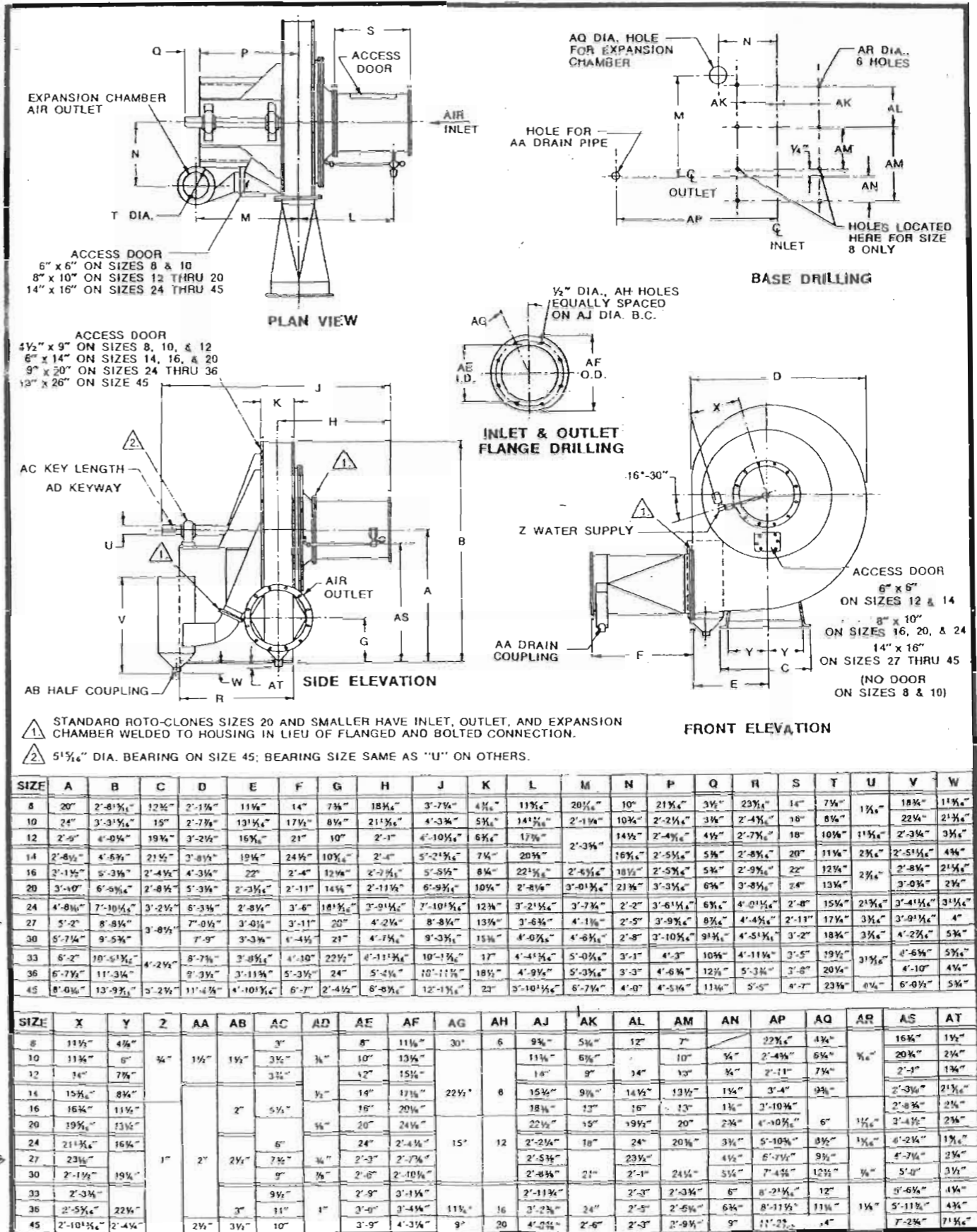


FIG. 4

Standard construction includes brass spray nozzles, stainless steel impeller blades and rivets. Water cone, impeller discs, and welded housing are hot rolled steel plate. All parts can be supplied of aluminum, stainless steel or other metals or the internal housing can be protected with corrosion resistant material (the impeller cannot be coated). See Fig. 5 for additional construction data.

# ARRANGEMENT A



## COLLECTS MORE DUST FOR FEWER DOLLARS!

The Type W Roto-Clone has become a dust control favorite throughout industry. The reason: Type W is the lowest priced high efficiency wet dust collector in its class.

The distinguishing feature of the Type W is the addition of water sprays to the basic principle of dynamic precipitation. The spray maintains a flowing film of water on all collecting surfaces which:

1. Lowers water requirements to a minimum.
2. Traps even the lightest and finest dust particles.
3. Delivers collected dust in slurry form for easy disposal.

Type W Roto-Clone provides everything you need, except duct connections, in one complete, shop-assembled package — high efficiency collector, exhauster, motor and drive. Available in 12 sizes from 1,000 to 50,000 cfm.

For heavy dust concentrations, a Precleaner is used with the Type W. The Precleaner removes the bulk of the dust, either wet or dry, leaving only the fines to be collected by the Roto-Clone.

### Highest Efficiency

Combines dynamic precipitation with a water spray. Maintains efficiency over entire operation range, regardless of speed or air volume. **98% or better dust removal for most applications.**

### Minimum Water Requirement

Water consumption is limited to a small amount required to maintain a flowing film on all collecting surfaces. **From 1/2 to 1 gallon per 1,000 cfm of air cleaned.**

### Small Space Requirements

Roto-Clone combines exhauster and dust collector. **Basically no larger than a centrifugal exhauster.**

### Low Installation Cost

Factory-assembled, tested, and shipped in sub-assemblies convenient to handle and easy to erect. **As simple to install as a centrifugal fan with the exception that furnace type ducting is not recommended — use welded duct. Water supply and drain are the only additional connections.**

### Continuous Operation

Uniform performance at peak efficiency without interruption for reconditioning or servicing of any kind. **Will operate around the clock — day after day.**

### Great Flexibility

Variety of sizes for any exhaust requirement. Compact design allows relocation at minimum expense. **Sizes with capacities from 1,000 to 50,000 cfm.**

### Constant Exhaust Volume

Proper conveying velocity in ducts and effective dust control at hoods maintained by constant exhaust air volume. **Build-up in ducts and escapement from hoods is prevented.**

### No Secondary Dust Problem

Collected dust discharges as slurry to process, sewer or sump.

## OPERATING PRINCIPLE

The dust laden air enters the Type W Roto-Clone where it is subjected to a fine water spray. The water and dust being heavier than air impinge on the blades of the impeller and then are directed into the water cone by the special blade design and the centrifugal force of the rotating impeller. The slurry drains from the unit through the sludge chute to the expansion chamber.

The impeller imparts energy to the clean air which being lighter than the water and dust is discharged in front of the water cone and continues on to the clean air outlet.

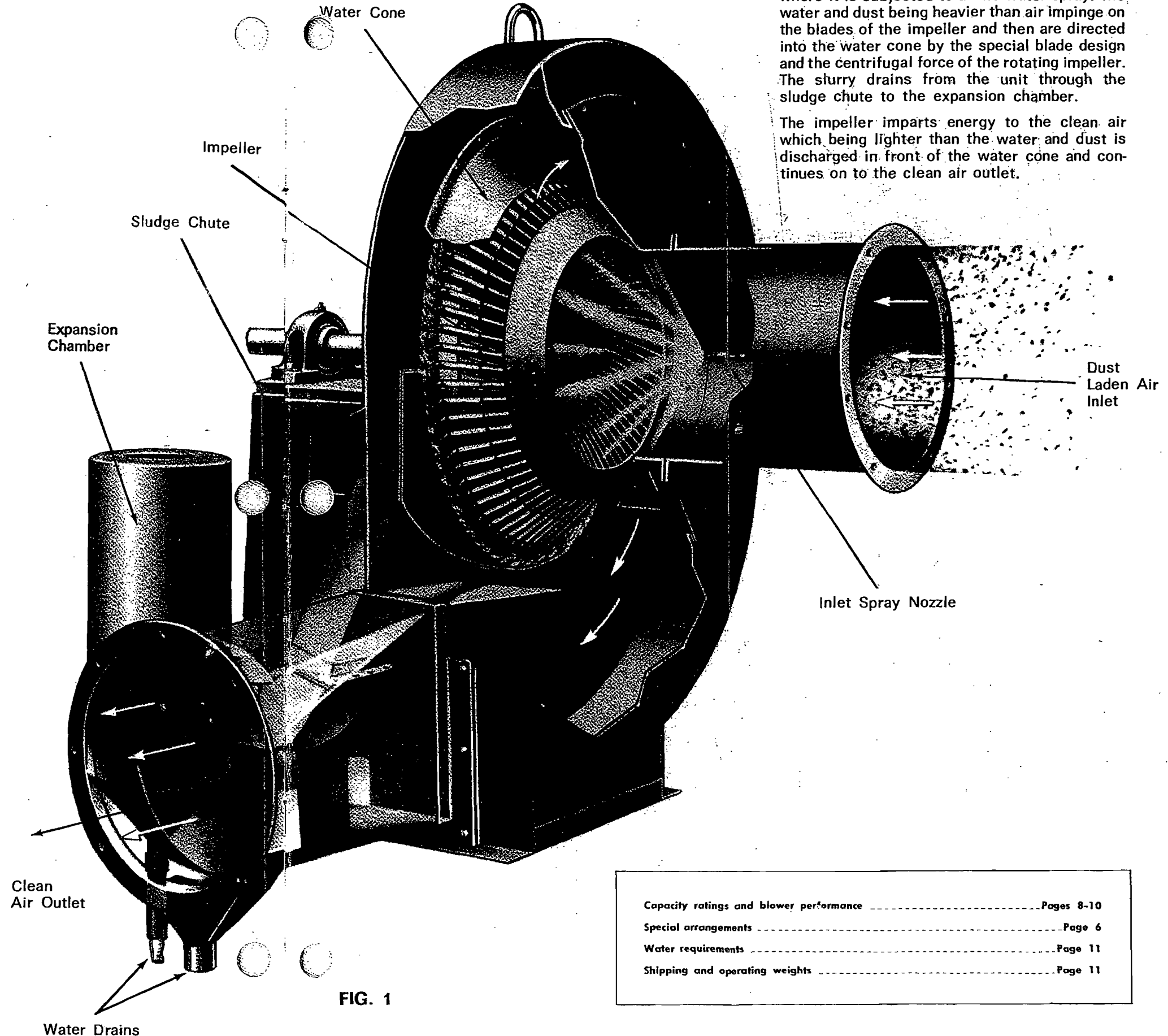


FIG. 1

Capacity ratings and blower performance .....	Pages 8-10
Special arrangements .....	Page 6
Water requirements .....	Page 11
Shipping and operating weights .....	Page 11

# HUMIDIFYING ACTION

Generally, for normal temperature applications, recirculation from the Type W ROTO-CLONE is practical without reheat. Temperature change or moisture increase is moderate. The exit dry bulb temperature from the Type W will always be less than the inlet temperature provided the latter exceeds the temperature of the spray water. For normal inlet velocities, the humidifying efficiency is approximately 50%, therefore, moisture increase in the air stream is not enough to cause condensation in the average plant or work area. Actual temperature change and moisture increase can be easily determined.

**Low Temperature:** The humidifying action of the Type W ROTO-CLONE can be treated in terms of adiabatic addition of moisture to the air and the heat gain through the unit. The addition of heat may be assumed to take place at constant moisture content (dew point temperature) and the moisture addition at constant total heat content. In making these assumptions, the heat transfer between the air and water due to any temperature differential, which may exist, is neglected as is any condensation or re-evaporation of moisture through the unit. The moisture gain can be determined by the equation defining humidifying efficiency:

$$N h = \frac{(X_2 - X_1)}{(X_2 - X_1)} \dots \dots \dots \text{Equation 1}$$

N h = humidifying efficiency, Fig. 14  
 $X_1$  = moisture content of inlet air, grains  
 $X_2$  = moisture content of outlet air, grains  
 $X_2$  = moisture content of inlet air after saturation, grains

The sensible heat gain of an air mover has two components, fan inefficiency and heat of compression. However, where fan inefficiency is determined by test, both of these energy components are included in the differential between horsepower input (BHP) to the fan and air horsepower (AHP). Ignoring heat loss through the housing, tests have shown that the sensible heat gain through the Type W ROTO-CLONE to be approximately 0.25 BTU per pound of dry air per inch water gage of fan Total Pressure. The temperature rise of the air stream due to this heat gain approximates 1°F per inch water gage of fan Total Pressure.

Heat gain = 0.25 BTU/lb. of dry air/inch of TP ..... Equation 2  
 Temperature Rise = 1°F/inch TP ..... Equation 3

A portion of this sensible heat gain is converted to the latent heat of the moisture absorbed by the air. Since the evaporation of 1 grain of moisture will adiabatically reduce the temperature by 0.62°F, the temperature reduction of the air due to loss of sensible heat is 0.62 ( $X_2 - X_1$ ). Taking both sensible and latent heat changes into consideration, this temperature change of the air leaving the Type W results in:

$$\Delta t = (TP) - 0.62 (X_2 - X_1) \dots \dots \dots \text{Equation 4}$$

$\Delta t$  = temperature change, °F

TP = fan Total Pressure, inches of water gage, (Equation 3)  
 $(X_2 - X_1)$  = moisture gain through the ROTO-CLONE, grains (Equation 1)

Data required to determine the humidifying efficiency of the Type W are CFM, Total Pressure, Size, Arrangement, Inlet Dry Bulb Temperature, and Relative Humidity or Inlet Wet Bulb Temperature.

**EXAMPLE:** A No. 8 Type W, Arrangement A, ROTO-CLONE is exhausting 1400 cfm at 6" TP. Inlet air is at 70°F and 50% relative humidity. Find the moisture increase and the temperature of the air leaving the ROTO-CLONE. Point "A" on the psychrometric chart (Fig. 13) represents the entering air conditions of 70°F and 50% relative humidity. The addition of heat from Equation 2 is  $(.25 \times 6 \text{ TP}) = 1.5 \text{ BTU per pound of dry air}$ . Point "B" indicates the heat content of the entering air and by adding the 1.5 BTU gain, point "C" is located on the total heat scale. Following the line of constant total heat corresponding with point "C", locates point "D" at the intersection of this total heat line and the 100% relative humidity or saturation line. Point "D" would represent the condition of the exit air if the ROTO-CLONE had a 100% humidifying efficiency. 1400 cfm in a No. 8 Type W ROTO-CLONE has a 4,000 fpm inlet velocity. Fig. 13 shows the humidifying efficiency to be 53% for Arrangement A and 4,000 fpm velocity. Therefore, the exit condition along the same total heat line can be located by using Equation 1 and substituting  $N h = 53\%$ ,  $X_2 = 80$  grains (point "E"),  $X_1 = 55$  grains (point "F"). Therefore,  
 $X_2 = N h (X_2 - X_1) + X_1$   
 $= 0.53 (80 - 55) + 55 = 68.3$  grains per pound of dry air

Following the same total heat line until it intersects the horizontal line for 68.3 grains per pound of dry air, locates the exit condition, point "G". Note the exit dry bulb temperature is 67.8°F, relative humidity is 68% and moisture increase is  $(X_2 - X_1) = 13.3$  grains per pound of dry air.

A check on the result or a quick method of determining the temperature change can be obtained by using Equation 4.

$$\Delta t = (TP) - 0.62 (X_2 - X_1)$$

$$= (6) - 0.62 (68.3 - 55) = -2.25^\circ\text{F}$$

Therefore,  $70^\circ\text{F} - 2.25^\circ\text{F} = 67.75^\circ\text{F}$  which agrees with exit temperature of 67.8° found on the psychrometric chart.

**High Temperature:** Recirculation would never be used on processes involving high temperature exhaust gases. Additional spray nozzles are necessary for temperatures over 200°F to avoid evaporation of the normal water requirements. Assuming the spray nozzles in the inlet duct will have a humidifying efficiency of 50%, the equation to determine the quantity of water required to cool the inlet gases to 200°F is:

$$W = \frac{M(t_i - 200)}{16,800} \dots \dots \dots \text{Equation 5}$$

W = water, gpm; M = air, pounds per minute;  $t_i$  = inlet temperature, degrees F

For more information, write American Air Filter Company, Inc.

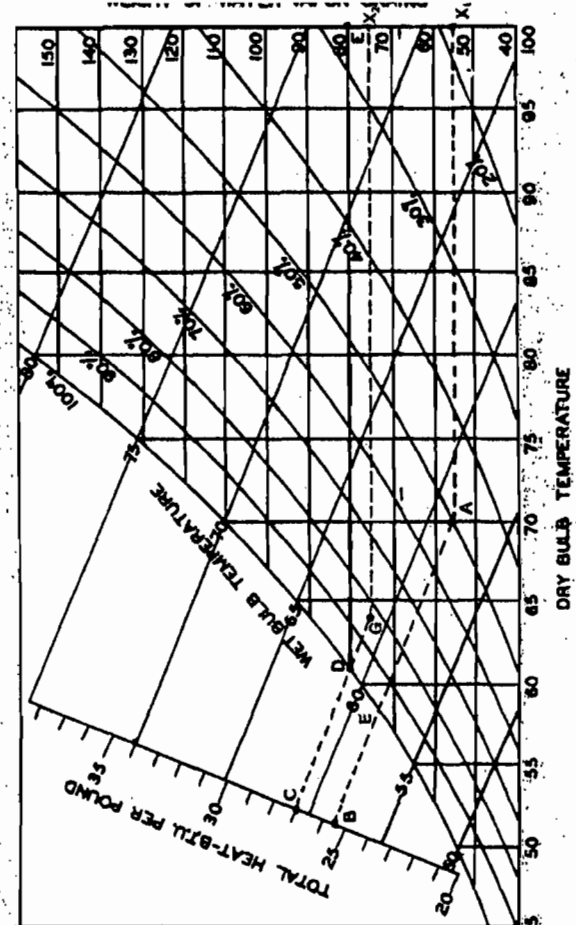
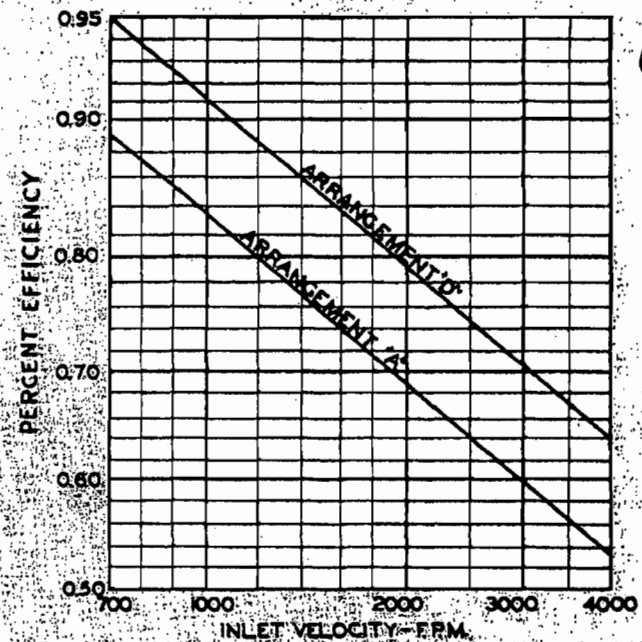


FIG. 12



HUMIDIFYING EFFICIENCY  
 FIG. 13

American Air Filter has a policy of continuous product research and improvement and reserves the right to change design and specifications without notice.



Better Air is Our Business®





215 CENTRAL AVENUE  
LOUISVILLE KY 40208-1408  
P O BOX 35680  
LOUISVILLE KY 40232-5680

# DataFax

To: Paul Wesson  
Company:  
FAX No.:  
Page 1 of: 2  
Subject: RotoClone Efficiency

From: Rick Stewart  
Answer Center Technical Support  
(800) 705-8280 (For Answer Center)  
Phone No.:  
Return FAX No.: (502) 637-0299  
Date: January 12, 1998  
cc:

Paul:

We do not have any efficiency ratings on skimmer. Here are some efficiency ratings on the W Rotoclone and much smaller micron than we discussed yesterday. Also, I'm sending a copy of the capacity table for the # 27.

<u>Particle Size</u>	<u>Efficiency</u>
2 µm	88.2 %
10 µm	99.0 %
16 µm	99.65 %
20 µm	99.8 %
28 µm	99.9 %

Hope this information is helpful.

Rick Stewart



EMISSIONS UNIT INFORMATION

Section [3] of [9]  
Sugar Refinery

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.

**EMISSIONS UNIT INFORMATION**

**Section [3] of [9]  
Sugar Refinery**

**A. GENERAL EMISSIONS UNIT INFORMATION**

**Title V Air Operation Permit Emissions Unit Classification**

1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)

The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

**Emissions Unit Description and Status**

1. Type of Emissions Unit Addressed in this Section: (Check one)

This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Description of Emissions Unit Addressed in this Section:  
**Sugar Refinery**

3. Emissions Unit Identification Number: **021-025, 034, 035**

4. Emissions Unit Status Code: <b>A</b>	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code: <b>20</b>	8. Acid Rain Unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
--	--------------------------------	--------------------------	--	--

9. Package Unit:  
Manufacturer: \_\_\_\_\_ Model Number: \_\_\_\_\_

10. Generator Nameplate Rating: **MW**

11. Emissions Unit Comment:  
**The sugar refinery produces standard white sugar or a specialty sugar from the raw sugar sent from the sugar mill. Some of the refined sugar is sold in bulk and shipped by truck on rail car. The majority of the refined sugar produced is transferred by truck to an on-site packaging and distribution warehouse.**

**EMISSIONS UNIT INFORMATION**

**Section [3] of [9]**

**Sugar Refinery**

**Emissions Unit Control Equipment**

1. Control Equipment/Method(s) Description:

**Baghouse**

**Wet Cyclonic Separators (4)**

**Process Enclosed**

2. Control Device or Method Code(s): **018, 057, 054**

**EMISSIONS UNIT INFORMATION**

**Section [3] of [9]**

**Sugar Refinery**

**B. EMISSIONS UNIT CAPACITY INFORMATION**

**(Optional for unregulated emissions units.)**

**Emissions Unit Operating Capacity and Schedule**

1. Maximum Process or Throughput Rate:		
2. Maximum Production Rate:	<b>390,000 TPY</b>	
3. Maximum Heat Input Rate:	million Btu/hr	
4. Maximum Incineration Rate:	pounds/hr	
	tons/day	
5. Requested Maximum Operating Schedule:		
	<b>24 hours/day</b>	<b>7 days/week</b>
	<b>52 weeks/year</b>	<b>8,760 hours/year</b>
6. Operating Capacity/Schedule Comment:		
	<p><b>Maximum production rate refers to the amount of refined sugar produced by the refinery utilizing the fluidized bed drying system and rotary drying system.</b></p>	

**EMISSIONS UNIT INFORMATION**

**Section [3] of [9]  
Sugar Refinery**

**C. EMISSION POINT (STACK/VENT) INFORMATION  
(Optional for unregulated emissions units.)**

**Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram: <b>See comment.</b>		2. Emission Point Type Code: <b>3</b>	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking:  <b>See Attachment OC-EU3-C15.</b>			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:			
5. Discharge Type Code: <b>V</b>	6. Stack Height: <b>93 feet</b>	7. Exit Diameter: <b>2.5 feet</b>	
8. Exit Temperature: <b>100 °F</b>	9. Actual Volumetric Flow Rate: <b>15,000 acfm</b>	10. Water Vapor: <b>%</b>	
11. Maximum Dry Standard Flow Rate: <b>dscfm</b>		12. Nonstack Emission Point Height: <b>feet</b>	
13. Emission Point UTM Coordinates... Zone: East (km): North (km):		14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)	
15. Emission Point Comment:  <b>See Attachment OC-EU3-C15. Stack parameters represent Wet Rotoclone No. 1. All other stack parameters included in Attachment OC-EU3-C15.</b>			

**EMISSIONS UNIT INFORMATION**

Section [3] of [9]  
 Sugar Refinery

**D. SEGMENT (PROCESS/FUEL) INFORMATION**

**Segment Description and Rate: Segment 1 of 3**

1. Segment Description (Process/Fuel Type):  <b>Food and Agriculture - Sugar Cane Processing, General</b>		
2. Source Classification Code (SCC): <b>3-02-015-01</b>		3. SCC Units: <b>Tons Sugar Produced</b>
4. Maximum Hourly Rate: <b>100</b>	5. Maximum Annual Rate: <b>390,000</b>	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment: <b>Maximum hourly and annual rates refer to the amount of refined sugar produced by the refinery from the fluidized bed and rotary drying systems. Maximum process rates for either system are 50 TPH and 1,200 TPD. Maximum process rates while operating both drying systems simultaneously are 100 TPH and 1,500 TPD.</b>		

**Segment Description and Rate: Segment 2 of 3**

1. Segment Description (Process/Fuel Type):  <b>Food and Agriculture - Sugar Cane Processing, Other Not Classified</b>		
2. Source Classification Code (SCC): <b>3-02-015-99</b>		3. SCC Units: <b>Tons Processed</b>
4. Maximum Hourly Rate: <b>44</b>	5. Maximum Annual Rate: <b>117,000</b>	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment: <b>Maximum hourly and maximum annual rates refer to the maximum amount of refined sugar that could be loaded at the bulk load-out area. Annual operating hours are 8,760 hours.</b>		

**EMISSIONS UNIT INFORMATION**

Section [3] of [9]  
 Sugar Refinery

**D. SEGMENT (PROCESS/FUEL) INFORMATION**

**Segment Description and Rate:** Segment 3 of 3

1. Segment Description (Process/Fuel Type):  <b>Food and Agriculture - Sugar Cane Processing, Other Not Classified</b>		
2. Source Classification Code (SCC): <b>3-02-015-99</b>		3. SCC Units: <b>Tons Processed</b>
4. Maximum Hourly Rate: <b>72</b>	5. Maximum Annual Rate: <b>273,000</b>	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment: <b>Maximum hourly and annual rates refer to the maximum amount of refined sugar that could be loaded at the trans-shipment bulk load-out area. Annual operating hours are 8,760 hours.</b>		

**Segment Description and Rate:** Segment \_\_\_\_ of \_\_\_\_

1. Segment Description (Process/Fuel Type):		
2. Source Classification Code (SCC):		3. SCC Units:
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment:		

**EMISSIONS UNIT INFORMATION**

Section [3] of [9]

Sugar Refinery

**E. EMISSIONS UNIT POLLUTANTS**

**List of Pollutants Emitted by Emissions Unit**

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
<b>PM</b>	<b>057, 018</b>	<b>054</b>	<b>EL</b>
<b>PM<sub>10</sub></b>	<b>057, 018</b>	<b>054</b>	<b>EL</b>
<b>VOC</b>			<b>NS</b>



**EMISSIONS UNIT INFORMATION**

Section [3] of [9]  
 Sugar Refinery

**POLLUTANT DETAIL INFORMATION**

Page [1] of [2]  
 Particulate Matter Total - PM

**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: <b>PM</b>	2. Total Percent Efficiency of Control: <b>99.4</b>
3. Potential Emissions: <b>7.06 lb/hour                      17.06 tons/year</b>	4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
5. Range of Estimated Fugitive Emissions (as applicable): to                      tons/year	
6. Emission Factor:  Reference: <b>Attachment OC-EU3-F1.8</b>	7. Emissions Method Code: <b>2</b>
8. Calculation of Emissions:  <b>Total potential hourly and annual emissions represent sugar drying and handling (fluidized bed and rotary systems combined) and load-out operations. See Attachment OC-EU3-F1.8.</b>	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: <b>See Attachment OC-EU3-F1.8 for complete calculations and description of control equipment.</b>	

**EMISSIONS UNIT INFORMATION**

Section [3] of [9]

Sugar Refinery

**POLLUTANT DETAIL INFORMATION**

Page [1] of [2]

Particulate Matter Total - PM

**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: <b>OTHER</b>	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: <b>36.80 TPY</b>	4. Equivalent Allowable Emissions: <b>21.66 lb/hour      36.80 tons/year</b>
5. Method of Compliance: <b>EPA Method 9</b>	
6. Allowable Emissions Comment (Description of Operating Method): <b>Based on permit No. 0990005-005-AC.</b>	

**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):	

**EMISSIONS UNIT INFORMATION**

Section [3] of [9]  
 Sugar Refinery

**POLLUTANT DETAIL INFORMATION**

Page [2] of [2]  
 Particulate Matter - PM<sub>10</sub>

**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: <b>PM<sub>10</sub></b>	2. Total Percent Efficiency of Control: <b>99.0%</b>
3. Potential Emissions: <b>1.54 lb/hour                      2.40 tons/year</b>	4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
5. Range of Estimated Fugitive Emissions (as applicable): to                      tons/year	
6. Emission Factor:  Reference: <b>Attachment OC-EU3-F1.8.</b>	7. Emissions Method Code: <b>2</b>
8. Calculation of Emissions:  <b>Total potential hourly emissions from sugar drying and handling (rotary system) and load-out operations. Total potential annual emissions represent sugar drying and handling (fluidized bed and rotary systems combined) and load-out operations. See Attachment OC-EU3-F1.8.</b>	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: <b>See Attachment OC-EU3-F1.8 for complete calculations and description of control equipment.</b>	

**EMISSIONS UNIT INFORMATION**

Section [3] of [9]  
 Sugar Refinery

**POLLUTANT DETAIL INFORMATION**

Page [2] of [2]  
 Particulate Matter - PM<sub>10</sub>

**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: <b>OTHER</b>	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: <b>13.39 TPY</b>	4. Equivalent Allowable Emissions: <b>10.0 lb/hour      13.39 tons/year</b>
5. Method of Compliance: <b>EPA Method 9</b>	
6. Allowable Emissions Comment (Description of Operating Method): <b>Based on permit No. 0990005-005-AC.</b>	

**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):	

**EMISSIONS UNIT INFORMATION**

Section [3] of [9]  
Sugar Refinery

**G. VISIBLE EMISSIONS INFORMATION**

Complete if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

**Visible Emissions Limitation:** Visible Emissions Limitation 1 of 2

1. Visible Emissions Subtype: <b>VE</b>	2. Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: <b>5 %</b> Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: <b>EPA Method 9</b>	
5. Visible Emissions Comment: <b>Rule 62-297.620(4), F.A.C. and Permit No. 0990005-005-AC. This limit applies to each point source exhaust stack, and is requested in lieu of a PM stack test.</b>	

**Visible Emissions Limitation:** Visible Emissions Limitation 2 of 2

1. Visible Emissions Subtype: <b>VE</b>	2. Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: <b>20 %</b> Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: <b>EPA Method 9</b>	
5. Visible Emissions Comment: <b>Rule 62-296.310(2), F.A.C. This limit applies to all fugitive emission points.</b>	

**EMISSIONS UNIT INFORMATION**

**Section [3] of [9]  
Sugar Refinery**

**H. CONTINUOUS MONITOR INFORMATION**

**Complete if this emissions unit is or would be subject to continuous monitoring.**

**Continuous Monitoring System:** Continuous Monitor \_\_\_\_ of \_\_\_\_

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

**Continuous Monitoring System:** Continuous Monitor \_\_\_\_ of \_\_\_\_

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

**EMISSIONS UNIT INFORMATION**

Section [3] of [9]  
Sugar Refinery

**I. EMISSIONS UNIT ADDITIONAL INFORMATION**

**Additional Requirements for All Applications, Except as Otherwise Stated**

1. Process Flow Diagram (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: <b>OC-EU3-I1</b> <input type="checkbox"/> Previously Submitted, Date _____
2. Fuel Analysis or Specification (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____
3. Detailed Description of Control Equipment (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: <b>OC-EU3-I3</b> <input type="checkbox"/> Previously Submitted, Date _____
4. Procedures for Startup and Shutdown (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____ <input checked="" type="checkbox"/> Not Applicable (construction application)
5. Operation and Maintenance Plan (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____ <input checked="" type="checkbox"/> Not Applicable
6. Compliance Demonstration Reports/Records <input type="checkbox"/> Attached, Document ID: _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> Previously Submitted, Date: _____ Test Date(s)/Pollutant(s) Tested: _____ <input checked="" type="checkbox"/> To be Submitted, Date (if known): _____ Test Date(s)/Pollutant(s) Tested: <b>VE</b> <input type="checkbox"/> Not Applicable Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.
7. Other Information Required by Rule or Statute <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

**EMISSIONS UNIT INFORMATION**

**Section [3] of [9]  
Sugar Refinery**

**Additional Requirements for Air Construction Permit Applications**

1. Control Technology Review and Analysis (Rules 62-212.400(6) and 62-212.500(7), F.A.C.; 40 CFR 63.43(d) and (e)) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rule 62-212.400(5)(h)6., F.A.C., and Rule 62-212.500(4)(f), F.A.C.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
3. Description of Stack Sampling Facilities (Required for proposed new stack sampling facilities only) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable

**Additional Requirements for Title V Air Operation Permit Applications**

1. Identification of Applicable Requirements <input checked="" type="checkbox"/> Attached, Document ID: <b>OC-EU3-IV1</b> <input type="checkbox"/> Not Applicable
2. Compliance Assurance Monitoring <input checked="" type="checkbox"/> Attached, Document ID: <b>CAM Plan</b> <input type="checkbox"/> Not Applicable
3. Alternative Methods of Operation <input checked="" type="checkbox"/> Attached, Document ID: <b>OC-EU3-I1</b> <input type="checkbox"/> Not Applicable
4. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
5. Acid Rain Part Application <input type="checkbox"/> Certificate of Representation (EPA Form No. 7610-1) <input type="checkbox"/> Copy Attached, Document ID: _____ <input type="checkbox"/> Acid Rain Part (Form No. 62-210.900(1)(a)) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Phase II NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input checked="" type="checkbox"/> Not Applicable



**EMISSIONS UNIT INFORMATION**

Section [3] of [9]  
Sugar Refinery

**Additional Requirements Comment**

## EMISSIONS UNIT INFORMATION

Section [4] of [9]  
Paint Spray Booth

### 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.

**EMISSIONS UNIT INFORMATION**

Section [4] of [9]

Paint Spray Booth

**A. GENERAL EMISSIONS UNIT INFORMATION**

**Title V Air Operation Permit Emissions Unit Classification**

1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)

The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

**Emissions Unit Description and Status**

1. Type of Emissions Unit Addressed in this Section: (Check one)

This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Description of Emissions Unit Addressed in this Section:  
**Paint Spray Booth**

3. Emissions Unit Identification Number: **048**

4. Emissions Unit Status Code: <b>A</b>	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code: <b>07</b>	8. Acid Rain Unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
--	--------------------------------	--------------------------	--	--

9. Package Unit: **Paint Spray Booth**  
 Manufacturer: **AFC, Inc.** Model Number: **TSD6036**

10. Generator Nameplate Rating: **MW**

11. Emissions Unit Comment:  
**A Crossflo truck spray booth.**

**EMISSIONS UNIT INFORMATION**

**Section [4] of [9]**

**Paint Spray Booth**

**Emissions Unit Control Equipment**

1. Control Equipment/Method(s) Description:

**Glass fiber paint arrestor pad**

2. Control Device or Method Code(s): **058**

**EMISSIONS UNIT INFORMATION**

Section [4] of [9]  
Paint Spray Booth

**B. EMISSIONS UNIT CAPACITY INFORMATION**

(Optional for unregulated emissions units.)

**Emissions Unit Operating Capacity and Schedule**

1. Maximum Process or Throughput Rate:	4,950 gallons/year	
2. Maximum Production Rate:		
3. Maximum Heat Input Rate:	million Btu/hr	
4. Maximum Incineration Rate:	pounds/hr tons/day	
5. Requested Maximum Operating Schedule:	24 hours/day 52 weeks/year	
	7 days/week	8,760 hours/year
6. Operating Capacity/Schedule Comment:	<p><b>Maximum throughput rate refers to gallons of paint and thinner.</b></p>	

**EMISSIONS UNIT INFORMATION**

Section [4] of [9]  
 Paint Spray Booth

**C. EMISSION POINT (STACK/VENT) INFORMATION**  
 (Optional for unregulated emissions units.)

**Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram: <b>Paint Spray Booth</b>		2. Emission Point Type Code: <b>3</b>	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking:  <b>Two identical exhaust stacks.</b>			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:			
5. Discharge Type Code: <b>V</b>	6. Stack Height: <b>25.7 feet</b>	7. Exit Diameter: <b>4 feet</b>	
8. Exit Temperature: <b>77 °F</b>	9. Actual Volumetric Flow Rate: <b>45,500 acfm</b>	10. Water Vapor: <b>%</b>	
11. Maximum Dry Standard Flow Rate: <b>dscfm</b>		12. Nonstack Emission Point Height: <b>feet</b>	
13. Emission Point UTM Coordinates... Zone: East (km): North (km):		14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)	
15. Emission Point Comment:  <b>There are two exhaust stacks for the Paint Spray Booth. Both are 25.7 ft tall with a 4-ft diameter and have a flow rate of 45,500 acfm.</b>			

**EMISSIONS UNIT INFORMATION**

Section [4] of [9]

Paint Spray Booth

**D. SEGMENT (PROCESS/FUEL) INFORMATION**

**Segment Description and Rate: Segment 1 of 1**

1. Segment Description (Process/Fuel Type):  <b>Surface Coating Application General - Paint: Solvent Based</b>		
2. Source Classification Code (SCC): <b>4-02-001-10</b>		3. SCC Units: <b>Gallons of coatings</b>
4. Maximum Hourly Rate: <b>16.8</b>	5. Maximum Annual Rate: <b>4,950</b>	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment:		

**Segment Description and Rate: Segment \_\_\_\_ of \_\_\_\_**

1. Segment Description (Process/Fuel Type):		
2. Source Classification Code (SCC):		3. SCC Units:
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment:		

**EMISSIONS UNIT INFORMATION**

**Section [4] of [9]**

**Paint Spray Booth**

**E. EMISSIONS UNIT POLLUTANTS**

List of Pollutants Emitted by Emissions Unit

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
VOC			EL



**EMISSIONS UNIT INFORMATION**

Section [4] of [9]  
 Paint Spray Booth

**POLLUTANT DETAIL INFORMATION**

Page [1] of [1]  
 Volatile Organic Compounds - VOC

**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: <b>VOC</b>		2. Total Percent Efficiency of Control:	
3. Potential Emissions: <b>70.4 lb/hour                      9.40 tons/year</b>		4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to                      tons/year			
6. Emission Factor:  Reference: <b>Permit No. 0990005-015-AC</b>		7. Emissions Method Code: <b>0</b>	
8. Calculation of Emissions:  <b>See Attachment OC-EU4-F1.8 for calculations.</b>			
9. Pollutant Potential/Estimated Fugitive Emissions Comment:			

**EMISSIONS UNIT INFORMATION**

Section [4] of [9]  
Paint Spray Booth

**POLLUTANT DETAIL INFORMATION**

Page [1] of [1]  
Volatile Organic Compounds - VOC

**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: <b>Other</b>	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: <b>9.40 tons per year</b>	4. Equivalent Allowable Emissions: lb/hour <b>9.40 tons/year</b>
5. Method of Compliance: <b>Monthly usage and VOC tracking.</b>	
6. Allowable Emissions Comment (Description of Operating Method): <b>Based on Permit No. 0990005-015-AC, limit is on a 12-consecutive-month basis.</b>	

**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):	

**EMISSIONS UNIT INFORMATION**

Section [4] of [9]  
Paint Spray Booth

**G. VISIBLE EMISSIONS INFORMATION**

Complete if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

**Visible Emissions Limitation:** Visible Emissions Limitation 1 of 2

1. Visible Emissions Subtype: <b>VE20</b>	2. Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: <b>20 %</b> Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: <b>EPA Method 9</b>	
5. Visible Emissions Comment: <b>Rule 62-296.320, F.A.C.</b>	

**Visible Emissions Limitation:** Visible Emissions Limitation \_\_\_\_ of \_\_\_\_

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: <input type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment:	

**EMISSIONS UNIT INFORMATION**

Section [4] of [9]  
Paint Spray Booth

**H. CONTINUOUS MONITOR INFORMATION**

**Complete if this emissions unit is or would be subject to continuous monitoring.**

**Continuous Monitoring System:** Continuous Monitor \_\_\_\_ of \_\_\_\_

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

**Continuous Monitoring System:** Continuous Monitor \_\_\_\_ of \_\_\_\_

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

**EMISSIONS UNIT INFORMATION**

Section [4] of [9]  
Paint Spray Booth

**I. EMISSIONS UNIT ADDITIONAL INFORMATION**

**Additional Requirements for All Applications, Except as Otherwise Stated**

1. Process Flow Diagram (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: <u>OC-EU4-I1</u> <input type="checkbox"/> Previously Submitted, Date _____
2. Fuel Analysis or Specification (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____
3. Detailed Description of Control Equipment (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: <u>OC-EU4-I3</u> <input type="checkbox"/> Previously Submitted, Date _____
4. Procedures for Startup and Shutdown (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____ <input checked="" type="checkbox"/> Not Applicable (construction application)
5. Operation and Maintenance Plan (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____ <input checked="" type="checkbox"/> Not Applicable
6. Compliance Demonstration Reports/Records <input type="checkbox"/> Attached, Document ID: _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> Previously Submitted, Date: _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> To be Submitted, Date (if known): _____ Test Date(s)/Pollutant(s) Tested: _____ <input checked="" type="checkbox"/> Not Applicable Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.
7. Other Information Required by Rule or Statute <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

## EMISSIONS UNIT INFORMATION

Section [4] of [9]  
Paint Spray Booth

### Additional Requirements for Air Construction Permit Applications

1. Control Technology Review and Analysis (Rules 62-212.400(6) and 62-212.500(7), F.A.C.; 40 CFR 63.43(d) and (e)) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rule 62-212.400(5)(h)6., F.A.C., and Rule 62-212.500(4)(f), F.A.C.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
3. Description of Stack Sampling Facilities (Required for proposed new stack sampling facilities only) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable

### Additional Requirements for Title V Air Operation Permit Applications

1. Identification of Applicable Requirements <input checked="" type="checkbox"/> Attached, Document ID: <b>OC-EU4-IV1</b> <input type="checkbox"/> Not Applicable
2. Compliance Assurance Monitoring <input checked="" type="checkbox"/> Attached, Document ID: <b>CAM Plan</b> <input type="checkbox"/> Not Applicable
3. Alternative Methods of Operation <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
4. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
5. Acid Rain Part Application <input type="checkbox"/> Certificate of Representation (EPA Form No. 7610-1) <input type="checkbox"/> Copy Attached, Document ID: _____ <input type="checkbox"/> Acid Rain Part (Form No. 62-210.900(1)(a)) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Phase II NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input checked="" type="checkbox"/> Not Applicable

**EMISSIONS UNIT INFORMATION**

**Section [4] of [9]  
Paint Spray Booth**

**Additional Requirements Comment**

**ATTACHMENT OC-EU4-IV1**

**IDENTIFICATION OF APPLICABLE REQUIREMENTS**



### Identification of Applicable Requirements

62-4.070(3)

62-4.160(2)

62-210.200

62.210.370

62-296.320(2)

62-296.320(4)(c)

62-297.310(7)(b)

**PAINT SPRAY BOOTH PERMIT**



Jeb Bush  
Governor

# Department of Environmental Protection

GOLDER ASSOCIATES INC.

AUG - 3 2005

GAINESVILLE

South District  
P.O. Box 2549  
Fort Myers, Florida 33902-2549

Colleen M. Castille  
Secretary

## NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION

August 1, 2005

CERTIFIED MAIL 7002 2410 0002 4843 2438  
RETURN RECEIPT REQUESTED

In the Matter of an  
Application for Permit by:

Ricardo A. Lima  
Okeelanta Corporation  
21250 U.S. Highway 27  
South Bay, Florida 33493

Palm Beach County - AP  
Okeelanta Corporation  
Okeelanta Sugar Mill and Refinery  
DEP File No. 0990005-015-AC

Dear Mr. Lima:

Enclosed is one copy of the Draft air construction permit modification for Okeelanta Corporation located at 21250 U.S. Highway 27, South Bay, Palm Beach County. The Department's Intent to Issue Air Construction Permit Modification and the Public Notice of Intent to Issue Air Construction Permit Modification are also included.

The Public Notice of Intent to Issue Air Construction Permit Modification must be published one time only, as soon as possible, in the legal advertisement section of a newspaper of general circulation in the area affected, pursuant to the requirements Chapter 50, Florida Statutes. Proof of publication, i.e., newspaper affidavit, must be provided to the Department's South District Office within seven days of publication. Failure to publish the notice and provide proof of publication may result in the denial of the permit.

Please submit any written comments you wish to have considered concerning the Department's proposed action to Mr. Ronald D. Blackburn, District Air Program Administrator at the above letterhead address. If you have any other questions, please contact Mara G. Nasca, Environmental Manager at 332-6975, Ext. 188 or Deanna Newburg ext. 173.

Sincerely,

Jon M. Iglehart  
Director of  
District Management

JMI/DLN/jw  
Enclosures

"More Protection, Less Process"

Printed on recycled paper.

In the Matter of an  
Application for Permit by:

Ricardo A. Lima  
Okeelanta Corporation  
21250 U.S. Highway 27  
South Bay, Florida 33493

Palm Beach County - AP  
Okeelanta Corporation  
Okeelanta Sugar Mill and Refinery  
DEP File No. 0990005-015-AC

### **INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION**

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit modification (copy of Draft permit attached) for the proposed project, detailed in the application specified above for the reasons stated below.

The applicant, Okeelanta Corporation, applied on February 11, 2005, to the Department for an air construction permit modification for its Okeelanta Sugar Mill and Refinery located approximately six miles south of South Bay on U.S. Highway 27, South Bay, Palm Beach County. The permit modifies Construction Permit 0990005-010-AC to increase the permitted capacity of paint and thinner usage from 2,475 gallons per year to 4,950 gallons per year, modifies Construction Permit 0990005-013-AC to remove the RACT (reasonable available control technology) requirements, and then combines the permits. The paint booth has the potential to emit 0.35 tons per year of particulate matter (PM), 0.35 tons per year of PM10, 9.38 tons/year of volatile organic compound (VOC) and 0.47 tons per year of Hazardous Air Pollutants (HAPs). The Department has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, and 62-212. The above actions are not exempt from permitting procedures. The Department has determined that an air construction permit is required for this project.

The Department intends to issue this air construction permit based on the belief that reasonable assurances have been provided to indicate that operation of these emission units will not adversely impact air quality, and the emission units will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297, F.A.C.

Pursuant to Section 403.815, F.S., and Rule 62-110.106(7)(a)1., F.A.C., you (the applicant) are required to publish at your own expense the enclosed Public Notice of Intent to Issue Air Construction Permit Modification. The notice shall be published one time only in the legal advertisement section of a newspaper of general circulation in the area affected. Rule 62-110.106(7)(b), F.A.C., requires that the applicant cause the notice to be published as soon as possible after notification by the Department of its intended action. For the purpose of these rules, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. If you are uncertain that a newspaper meets these requirements, please contact the Department at the address or telephone number listed below. The applicant shall provide proof of publication to the Department of Environmental Protection, Post Office Box 2549, Fort Myers, Florida 33902-2549, (Telephone: (239) 332-6975, Fax: (239) 332-6969). You must provide proof of publication within seven days of publication, pursuant to Rule 62-110.106(5), F.A.C. No permitting action for which published notice is required shall be granted until proof of publication of notice is made by furnishing a uniform affidavit in substantially the form prescribed in Section 50.051, F.S. to the office of the Department issuing the permit. Failure to publish the notice and provide proof of publication may result in the denial of the permit pursuant to Rules 62-110.106(9) & (11), F.A.C.

The Department will issue the final permit with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION

Okeelanta Corporation

DEP File No. 0990005-015-AC

Page 2 of 4

The Department will accept written comments concerning the proposed permit issuance action for a period of fourteen days from the date of publication of Public Notice of Intent to Issue Air Construction Permit Modification. Written comments should be provided to the Department of Environmental Protection, Post Office Box 2549, Fort Myers, Florida 33902-2549. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S. must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S. or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that 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 such final decision of the Department

on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation is not available in this proceeding.

In addition to the above, a person subject to regulation has a right to apply for a variance from or waiver of the requirements of particular rules, on certain conditions, under Section 120.542, F.S. The relief provided by this state statute applies only to state rules, not statutes, and not to any federal regulatory requirements. Applying for a variance or waiver does not substitute or extend the time for filing a petition for an administrative hearing or exercising any other right that a person may have in relation to the action proposed in this notice of intent.

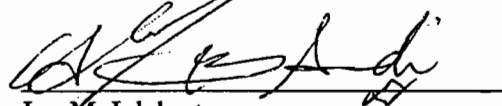
The application for a variance or waiver is made by filing a petition with the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. The petition must specify the following information: (a) The name, address, and telephone number of the petitioner; (b) The name, address, and telephone number of the attorney or qualified representative of the petitioner, if any; (c) Each rule or portion of a rule from which a variance or waiver is requested; (d) The citation to the statute underlying (implemented by) the rule identified in (c) above; (e) The type of action requested; (f) The specific facts that would justify a variance or waiver for the petitioner; (g) The reason why the variance or waiver would serve the purposes of the underlying statute (implemented by the rule); and (h) A statement whether the variance or waiver is permanent or temporary and, if temporary, a statement of the dates showing the duration of the variance or waiver requested.

The Department will grant a variance or waiver when the petition demonstrates both that the application of the rule would create a substantial hardship or violate principles of fairness, as each of those terms is defined in Section 120.542(2), F.S. and that the purpose of the underlying statute will be or has been achieved by other means by the petitioner.

Persons subject to regulation pursuant to any federally delegated or approved air program should be aware that Florida is specifically not authorized to issue variances or waivers from any requirements of any such federally delegated or approved program. The requirements of the program remain fully enforceable by the Administrator of the EPA and by any person under the Clean Air Act unless and until the Administrator separately approves any variance or waiver in accordance with the procedures of the federal program.

Executed in Fort Myers, Florida.

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL PROTECTION



Jon M. Iglehart  
Director of  
District Management  
Post Office Box 2549  
Fort Myers, Florida 33902-2549  
(239) 332-6975

**CERTIFICATE OF SERVICE**

The undersigned duly designated deputy agency clerk hereby certifies that this Intent to Issue Air Construction Permit Modification (including the Public Notice of Intent to Issue Air Construction Permit Modification and the Draft permit) was sent by certified mail (\*) and copies were mailed by U.S. Mail before the close of business on August 1, 2005 to the persons listed:

Ricardo A. Lima, Vice-President -General Manager, Okeelanta Corporation \*

David A. Buff, P.E. – Golder Associates, Inc. ✓

James Stormer, Palm Beach County Air Program Administrator

Clerk Stamp

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

James Stormer 8/1/05  
(Clerk) (Date)

**PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION**

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
DEP File No. 0990005-015-AC  
Okeelanta Corporation  
Okeelanta Sugar Mill and Refinery  
Palm Beach County

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit modification to Okeelanta Corporation, for the Okeelanta Sugar Mill and Refinery located approximately six miles south of South Bay on US Highway 27, South Bay, Palm Beach County. The permit modifies Construction Permit 0990005-010-AC to increase the permitted capacity of paint and thinner usage from 2,475 gallons per year to 4,950 gallons per year, modifies Construction Permit 0990005-013-AC to remove the RACT (reasonable available control technology) requirements, and then combines the permits. The paint booth has the potential to emit 0.35 tons per year of particulate matter (PM), 0.35 tons per year of PM10, 9.38 tons/year of volatile organic compound (VOC) and 0.47 tons per year of Hazardous Air Pollutants (HAPs).

The Department will issue the Final permit with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments concerning the proposed permit issuance action for a period of fourteen days from the date of publication of this Public Notice of Intent to Issue Air Construction Permit Modification. Written comments should be provided to the Department of Environmental Protection, Post Office Box 2549, Fort Myers, Florida 33902-2549. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57, F.S. before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below.

Mediation is not available in this proceeding.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S. must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S. or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.



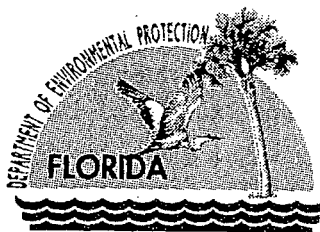
A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that 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 such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

A complete project file is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at Florida Department of Environmental Protection, South District, 2295 Victoria Avenue, Suite 364, Fort Myers, Florida and at the Division of Environmental Science and Engineering, Palm Beach County Health Department, 901 Evernia Street, West Palm Beach, Florida 33401.

The complete project file includes the application, technical evaluations, Draft permit, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the District's Air Program Administrator or the project engineer, at 2295 Victoria Avenue, Suite 364, Fort Myers or call 239/332-6975, for additional information.



Jeb Bush  
Governor

# Department of Environmental Protection

South District  
P.O. Box 2549  
Fort Myers, Florida 33902-2549

Colleen M. Castille  
Secretary

**PERMITTEE:**

Okeelanta Corporation  
Okeelanta Sugar Mill and Refinery  
21250 U. S. Highway 27  
South Bay, Florida 33493

Facility I.D. No.: 0990005  
Permit Number: 0990005-015-AC  
Date of Issue: **DRAFT**  
Expiration Date: **DRAFT**  
County: Palm Beach  
Latitude: 26° 34' 39" N  
Longitude: 80° 44' 58" W  
Project: Modification of Construction Permits  
0990005-010-AC and 0990005-013-AC

This permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Rules 62-4, 62-296, and 62-297. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the Department and made a part hereof and specifically described as follows:

The permit modifies Construction Permit 0990005-010-AC to increase the permitted capacity of paint and thinner usage from 2,475 gallons per year to 4,950 gallons per year, modifies Construction Permit 0990005-013-AC to remove the RACT (reasonable available control technology) requirements, and then combines the permits. The paint booth has the potential to emit 0.35 tons per year of particulate matter (PM), 0.35 tons per year of PM10, 9.38 tons/year of volatile organic compound (VOC) and 0.47 tons per year of Hazardous Air Pollutants (HAPs).

The facility is located approximately six miles south of South Bay, Palm Beach County.

**Pertinent Documents**

Construction Application  
Construction Permit 0990005-010-AC  
Construction Permit 0990005-013-AC  
Operating Permit 0990005-012-AV  
Construction Application  
Request for Additional Information request  
Request for Additional Information received  
2nd Request for Additional Information request  
2nd Request for Additional Information received

**Dated**

July 6, 2001  
August 22, 2001  
November 13, 2003  
March 18, 2004  
February 11, 2005  
March 16, 2005  
April 20, 2005  
May 11, 2005  
May 25, 2005

PERMITTEE:  
Okeelanta Corporation  
Okeelanta Sugar Mill and Refinery

Facility I.D. No.: 0990005  
Permit Number: 0990005-015-AC  
Date of Issue: **DRAFT**  
Expiration Date: **DRAFT**

**SPECIFIC CONDITIONS:**

This permit addresses the following emissions unit:

<u>E. U.</u> <u>ID No.</u>	<u>Emissions Unit Description</u>
048	Paint Booth

This emissions unit consists of a paint spray booth used to re-paint farm equipment used in agricultural fields, trailers for the delivery of cane to the mill, as well as other vehicles. The paint spray booth is manufactured by AFC, Inc., the drive-thru model of the Crossflo Truck spray booth, Model Number TSD6036.

1. Permitted Capacity. The maximum throughput rate of paint and thinner shall not exceed 4,950 gallons in any consecutive 12-month period.  
[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; and Applicant's Request dated February 11, 2005]

2. Method of Operation. Paint shall only be applied to facility owned agricultural equipment, trailers, and other vehicles. Paint will be applied by one of two methods, compressed air spray gun, or an airless paint sprayer. The compressed air spray gun will use house air within a pressure range of 60 to 80 pounds per square inch (psi). The airless paint sprayer will be a Titan airless paint sprayer, Model Epic 1100HPX. It will operate at a pressure of approximately 3,200 psi. There are two exhaust stacks for the paint spray booth. Both are 25.7 feet tall with a 4-foot diameter and have a flowrate of 45,500 acfm.  
[Construction Permit 0990005-010-AC, dated August 22, 2001]

3. Hours of Operation. This emissions unit is allowed to operate continuously, 8,760 hours/year.  
[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; and Construction Permit 0990005-010-AC, dated August 22, 2001]

4. The permittee shall not cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor.  
[Rule 62-296.320(2), F.A.C. and Construction Permit 0990005-010-AC, dated August 22, 2001]

5. The permittee shall take all reasonable precautions to prevent emissions of unconfined particulate matter. The permittee shall not cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity, including vehicular movement; transportation of materials; construction, alteration, demolition or wrecking; or industrially related activities such as unloading, storing or handling; without taking reasonable precautions to prevent such emissions. Reasonable precautions may include, but shall not be limited to,

- (a) removal of particulate matter from roads and other paved areas under the control of the permittee, and from buildings or work areas to prevent particulate from becoming airborne,
- (b) landscaping or planting of vegetation,
- (c) use of hoods, fans, filter, and similar equipment to contain, capture and/or vent particulate matter, and
- (d) confining abrasive blasting and sanding where possible.

[Rule 62-296.320(4)(c), F.A.C. and Construction Permit 0990005-010-AC, dated August 22, 2001]

PERMITTEE:  
Okeelanta Corporation  
Okeelanta Sugar Mill and Refinery

Facility I.D. No.: 0990005  
Permit Number: 0990005-015-AC  
Date of Issue: **DRAFT**  
Expiration Date: **DRAFT**

#### **SPECIFIC CONDITIONS:**

6. All equipment, pipes, hoses, lids, fittings, etc., shall be operated/maintained in such a manner as to minimize leaks, fugitive emissions, and spills of solvent materials.  
[Rule 62-296.320, F.A.C. and Construction Permit 0990005-010-AC, dated August 22, 2001]

7. The permittee may adjust the amounts and types of coatings used as necessary to comply with the conditions of this permit.  
[Construction Permit 0990005-013-AC, dated November 13, 2003]

8. Both paint spray booth exhaust stacks shall be equipped with functional glass fiber paint arrestor pads.  
[Construction Permit 0990005-010-AC, dated August 22, 2001]

#### **Emission Limitations and Standards**

9. Volatile organic compounds (VOCs) emissions shall not exceed 9.38 tons per year.  
[Applicant's Request dated February 11, 2005]

10. Hazardous air pollutants (HAPs) emissions shall not exceed 0.47 tons per year.  
[Applicant's Request dated February 11, 2005]

11. Particulate matter (PM) emissions are estimated to be 0.35 tons per year.  
[Applicant's Request dated February 11, 2005]

12. Visible emissions from the paint spray booth shall not exceed 20% opacity.  
[Rule 62-296.320, F.A.C. and Construction Permit 0990005-010-AC, dated August 22, 2001]

#### **Record Keeping and Reporting Requirements**

13. The permittee shall record and maintain records of the following:
- a) the number of hours that the spray booth is in use (actual);
  - b) the dates of operation;
  - c) the amounts and types of coatings used;
  - d) a monthly inventory of the volatile organic compounds, hazardous air pollutants and solvents used in the spray booth.

The permittee shall calculate the volatile organic compounds (VOC) emitted on a monthly basis by assuming that all VOC in the coatings and cleanup solvents are evaporated. The permittee shall calculate the hazardous air pollutants (HAP) on a monthly basis. The mass fraction of VOC and HAP from each coating material (and cleanup solvents) shall be determined from the Material Safety Data Sheets (MSDS) supplied from the vendors. The permittee shall maintain a file of MSDS for each raw material which indicates the composition of the VOCs and HAPs. Raw materials include, but are not limited to, powder coatings, solvent coatings, thinners, and cleaners. The file must be maintained on site and made available for inspection upon request. The permittee shall have until the 15th day of the following month to complete these records.

[Rules 62-210.370 and 62-4.070(3), F.A.C. and Construction Permit 0990005-013-AC, dated November 13, 2003]

PERMITTEE:  
Okeelanta Corporation  
Okeelanta Sugar Mill and Refinery

Facility I.D. No.: 0990005  
Permit Number: 0990005-015-AC  
Date of Issue: **DRAFT**  
Expiration Date: **DRAFT**

**SPECIFIC CONDITIONS:**

14. The amounts and types of coatings used and the calculated VOC and HAP emissions shall be included in the annual report.

[Rules 62-210.370 and 62-4.070(3), F.A.C. and Construction Permit 0990005-013-AC, dated November 13, 2003]

15. Copies of all reports, tests, notifications or other submittals required by this permit shall be submitted to both the Department of Environmental Protection, South District and the Palm Beach County Public Health Unit.

[Rule 62-210.370, F.A.C., and Construction Permit 0990005-010-AC dated August 22, 2001]

**Reasonable Assurances**

16. Issuance of this permit does not relieve the permittee of an emissions unit from complying with any applicable requirements, any emission limiting standards or other requirements of the air pollution rules of the Department or any other requirements under federal, state or local law.

[Rule 62-210.300, F.A.C., and Construction Permit 0990005-010-AC dated August 22, 2001]

17. **Special Compliance Tests.** When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it shall require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.

[Rule 62-297.310(7)(b), F.A.C. and Construction Permit 0990005-010-AC dated August 22, 2001]

**General Conditions:**

18. An integral part of this permit is the attached 15 General Conditions.

[Rule 62-4.160, F.A.C.]

**NOTE:** In the event of an emergency the permittee shall contact the Department by calling (850) 413-9911. During normal business hours, the permittee shall call (239) 332-6975.

Issued this      day of                      2005.

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL PROTECTION

**DRAFT**

---

Jon M. Iglehart  
Director of  
District Management  
Post Office Box 2549  
Fort Myers, Florida 33902-2549  
(239) 332-6975

JMI/DLN/jw

PERMITTEE:  
Okeelanta Corporation  
Okeelanta Sugar Mill and Refinery

Facility I.D. No.: 0990005  
Permit Number: 0990005-015-AC  
Date of Issue: **DRAFT**  
Expiration Date: **DRAFT**

#### GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings or exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations. This permit is not a waiver or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by any order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:
  - (a) Have access to and copy any records that must be kept under the conditions of the permit;
  - (b) Inspect the facility, equipment, practices, or operations regulated or required under this permit, and,
  - (c) Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

PERMITTEE:  
Okeelanta Corporation  
Okeelanta Sugar Mill and Refinery

Facility I.D. No.: 0990005  
Permit Number: 0990005-015-AC  
Date of Issue: **DRAFT**  
Expiration Date: **DRAFT**

**GENERAL CONDITIONS:**

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

- (a) A description of and cause of non-compliance; and
- (b) The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, F.A.C. as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. This permit incorporates the following previously issued determinations:

- (a) Determination of Best Available Control Technology (not applicable);
- (b) Determination of Prevention of Significant Deterioration (not applicable); and
- (c) Compliance with New Source Performance Standards (not applicable).

PERMITTEE:  
Okeelanta Corporation  
Okeelanta Sugar Mill and Refinery

Facility I.D. No.: 0990005  
Permit Number: 0990005-015-AC  
Date of Issue: **DRAFT**  
Expiration Date: **DRAFT**

**GENERAL CONDITIONS:**

14. The permittee shall comply with the following:

- (a) Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
- (b) The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application or this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
- (c) Records of monitoring information shall include:
  - 1. The date, exact place, and time of sampling or measurements;
  - 2. The person responsible for performing the sampling or measurements;
  - 3. The date's analyses were performed;
  - 4. The person responsible for performing the analyses;
  - 5. The analytical techniques or methods used; and
  - 6. The results of such analyses.

15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law, which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.



**COMPLIANCE ASSURANCE MONITORING PLAN  
(CAM PLAN)**

**for**

**Okeelanta Corporation**

**Okeelanta Sugar Mill and New Hope Power Partnership Cogeneration  
Facilities**

**December 2005**

**053-7537**

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## **1.0 EMISSION UNITS REQUIRING CAM PLANS**

### **1.1 CAM Rule Applicability Definition**

On October 24, 2000, the Florida Department of Environmental Protection (FDEP) issued the initial Title V air operation permit (Permit No. 0990005-003-AV) to Okeelanta Corporation (Okeelanta) for the operation of the Okeelanta sugarcane processing and sugar refining operations and the adjacent New Hope Power Partnership's (NHPP's) power generation operations. The permit was revised on March 18, 2004, and issued as Permit No. 0990005-012-AV. This permit expires on October 24, 2005, and the renewal application is due to FDEP by April 24, 2005.

As part of the Title V renewal application, a Compliance Assurance Monitoring (CAM) Plan must be submitted as required by regulations adopted in Title 40, Part 64 of the Code of Federal Regulations (40 CFR 64). This regulation has been incorporated by reference in Rule 62-204.800, Florida Administrative Code (F.A.C.), and implemented in Rule 62-213.440, F.A.C.

CAM Plans are required for all Title V permitted emissions units using control devices to meet federally enforceable emission limits or standards, and that have pre-control emissions greater than "major" source thresholds. The term "major" is defined as in the Title V regulations (40 CFR 70), but applied on a source-by-source basis. For most non-hazardous pollutants, the major source threshold is 100 tons per year (TPY). For hazardous air pollutants (HAPs), the threshold is 10 TPY for an individual HAP, and 25 TPY for total HAPs combined.

The CAM Rules contain specific exemptions from applicability of the CAM Rule. Specifically exempted from the CAM Rule are emission limitations or standards promulgated under Stratospheric Ozone Regulations contained in 40 CFR 82, the Acid Rain Program contained in 40 CFR 72, or that are part of an emissions cap included in the Title V Permit. Also exempt are emission limitations or standards proposed after November 15, 1990, under New Source Performance Standards (NSPS) contained in 40 CFR 60, and National Emission Standards for Hazardous Air Pollutants (NESHAPs) promulgated in 40 CFR 63, as these limitations and standards have equivalent monitoring requirements included as part of the standard.

Inherent process equipment (IPE), or equipment that may have the effect of controlling emissions but is installed for the primary purpose of product recovery or raw material recovery, is also exempt from CAM (40 CFR 64.1). In addition, CAM does not apply to any emission limit or standard for which the Title V permit specifies a continuous compliance determination method [40 CFR 64.2(b)(1)(vi)],

provided that the method does not include an assumed control device emission reduction factor that could be affected by the actual operation and maintenance of the control device.

## **1.2 Emissions Units Requiring CAM Plans**

A review of emissions units at the Okeelanta sugar mill and sugar refinery, including packaging and transshipment activities, and NHPP's cogeneration facility, was conducted to determine the applicability of the CAM Rule. This evaluation was conducted for each emissions unit and regulated pollutant. First, the existence of a "control device" as defined by the CAM Rule was determined on a source-by-source basis for each pollutant. Those emissions units without control devices were eliminated from further consideration. The remaining emissions units were then evaluated on a pollutant-by-pollutant basis to determine if a control device was used to meet a federally enforceable emission limit or standard.

Each pollutant without a federally enforceable emission limit or standard, emitted from a given emissions unit, was eliminated from further consideration. Uncontrolled annual emissions were then calculated for each remaining source-pollutant combination. If uncontrolled emissions for a pollutant emitted from a given emissions unit were below major source thresholds, as defined by the CAM Rule, that pollutant was not further considered.

A summary of the results of this evaluation process is presented in Table 1. Supporting information is presented in Tables 2 through 6. Specific exemptions to the applicability of the CAM Rule were also considered in this evaluation.

Each pollutant-specific emissions unit at Okeelanta Sugar Mill and NHPP, and its applicability to CAM is described below.

### **1.2.1 Okeelanta Mill Boiler No. 16**

Okeelanta operates Boiler No. 16 at the Okeelanta sugar mill, which is a Babcock and Wilcox Model No. FM 120-97 package boiler with a maximum steam production rate of 150,000 pounds per hour (lb/hr) (24-hour average). Boiler No. 16 has a maximum heat input rate of 211 million British thermal units per hour (MMBtu/hr) when firing natural gas and 202 MMBtu/hr when firing very low sulfur distillate oil.

The only control device Boiler No. 16 has is the flue gas recirculation (FGR) system, which controls nitrogen oxides (NO<sub>x</sub>) emissions. The boiler has emission limits set for carbon monoxide (CO) and

NO<sub>x</sub>. Emissions of CO are not controlled by any control device, and therefore a CAM Plan for CO is not required. Since NO<sub>x</sub> is controlled by a control device and as presented in Table 2, uncontrolled NO<sub>x</sub> emissions are more than the major source threshold of 100 TPY, NO<sub>x</sub> was initially determined to be a pollutant that requires CAM. However, Boiler No. 16 has a continuous emission monitoring system (CEMS), per Specific Condition No. A.10 of Permit No. 0090005-012-AV, to measure and record the emissions of NO<sub>x</sub> from the boiler and demonstrate compliance with the CEMS. The CAM Rule contained in 40 CFR 64 specifies that emission limitations or standards for which a Part 70 or 71 permit specifies a continuous compliance demonstration method are exempt from the requirements of CAM [40 CFR 64.2(b)(1)(vi)]. Therefore, a CAM Plan for NO<sub>x</sub> is not required.

### **1.2.2 Okeelanta Sugar Transshipment Facility**

The Transshipment Facility at the Okeelanta sugar mill consists of multiple emissions units: the vacuum system baghouse (EU 018), the packaging lines baghouse (EU 019), the grinder baghouse (EU 20), three Sugar Silo baghouses (EUs 026, 027, and 028), the powdered sugar dryer/cooler baghouse (EU 045), the powdered sugar hopper baghouse (EU 046), and the new packaging lines baghouse (EU 047). These emission points are control devices to reduce the potential total particulate matter (PM) emissions from the facility. Maximum throughput rate of the facility is 865 tons of refined sugar per day.

Each emissions unit at the Transshipment Facility has a control device and a federally enforceable emission limit for PM in tons per year. As shown in Table 1, none of the Transshipment Facility sources (EUs 018, 019, 020, 026, 045, 046, and 047) is required to have a CAM Plan. The justification for this conclusion for each emissions unit is presented below.

The Central Vacuum System (EU 018) is designed to allow manual pickup of sugar dust from a number of pickup points located throughout the facility as needed. Based on engineering judgment, it is assumed that the amount of dust picked up by the Central Vacuum System does not exceed 100 TPY. Therefore, a CAM Plan for PM is not required for the Central Vacuum System.

Detailed descriptions of the baghouses controlling the Packaging Lines (EUs 019 and 047) and the Sugar Silos (EUs 026, 027, and 028) are provided in Attachment OC-EU2-I3 of the Title V operating permit renewal application for Okeelanta (refer to Attachment B3). Control efficiency information for the baghouses is not available as the manufacturers provided outlet grain loading without inlet grain loading information. In order to estimate the uncontrolled emission rates from these sources,

continuous or batch drop emission factors from AP-42, Section 13.2.4, were computed and used wherever appropriate.

In the Sugar Silos, bucket elevators drop sugar into the silos directly. Any air displaced by the sugar is vented through a baghouse. The “drop” equation was appropriately used to estimate uncontrolled PM/particulate matter with aerodynamic size less than 10 micrometers (PM<sub>10</sub>) emissions from the sugar silos. There are a total of three sugar silos, with one transfer point per silo. However, the sugar effectively only experiences one drop since it is loaded into one of the three silos.

Similarly, the drop equation was also used to estimate uncontrolled PM and PM<sub>10</sub> emissions from the Packaging Lines. Three transfer points were used in the calculation, as the maximum number of transfer points on any packaging line is three. In reality, only one packaging line has three transfer points and all the rest have one or two points. The Packaging Lines baghouse (EU 019) controls Packaging Lines 1 through 9 and the new Packaging Lines baghouse (EU 047) controls Packaging Lines 11 through 14.

For the purpose of emissions calculation, the combined annual packaging capacity of 315,725 TPY was prorated among EUs 019 and 047 based on the number of packaging lines in each group. In all, the emissions calculations using the drop equation was used, with a refined sugar moisture content of 0.25 percent, which is the lowest rating for which the drop equation has an “A” rating. Since the transfer points are enclosed, a wind speed of 1.3 mph was used, the lowest wind speed for which the drop equation has an “A” rating.

The emissions calculations are presented in Table 3, and as demonstrated, the uncontrolled PM and PM<sub>10</sub> emissions from the Packaging Lines 1 through 9 baghouse (EU 019), Sugar Silos 1, 2, and 3 (EU 026, 027, and 028), and Packaging Lines 11 through 14 baghouse (EU 047) are less than 100 TPY. As a result, these emission units are not subject to the CAM requirements.

The Grinder (EU 020) and the Powdered Sugar Hopper (EU 046), as well as the baghouse associated with each unit, are designed in such a way that all the material from the unit either falls or is pulled into the baghouse. The baghouses act as collection mechanisms for powdered sugar and are an integral part of the process. Since these baghouses are considered part of the process, they are not considered control equipment, and as a result, the Grinder (EU 020) and the Powdered Sugar Hopper (EU 046) are not subject to the CAM requirements since they have no control device.

PM emissions from the Powdered Sugar Dryer/Cooler are controlled by a baghouse (EU 045), which is located after a cyclone. The cyclone is part of the process equipment and removes the larger PM. Based on engineering judgment, it is assumed that the sugar dust that leaves the cyclone does not exceed 100 TPY. Therefore, the powdered sugar dryer/cooler is not subject to CAM for PM.

### **1.2.3 Okeelanta Sugar Refinery**

The Sugar Refinery unit at the Okeelanta sugar mill and refinery consists of multiple emissions units: two Central Dust Collection Systems (EU 021 and 022); the Fluidized Bed Dryer (EU 025), used as the primary sugar drying system; Cooler Nos. 1 and 2 (EU 023 and 024), used to cool dried sugar leaving the rotary dryer; the Bulk Load-out operation (EU 034), used to load sugar into either trucks or railcars; and the Transfer Bulk Load-out station (EU 035), used to supply sugar to the Transshipment Facility. Four wet rotoclones, one baghouse, and process enclosures reduce the PM emissions from the sugar refinery. Refined sugar production in the refinery is limited to 390,000 TPY and 1,500 tons per day (TPD).

EU 034 (Bulk Load-out operation) and EU 035 (Transfer Bulk Load-out operation) have no control devices and, therefore, are exempt from the CAM requirements. Each of the EUs 021, 022, 023, 024, and 025 at the sugar refinery has a control device and federally enforceable emission limits for PM and PM<sub>10</sub> on a tons-per-year basis. The derivation of uncontrolled emissions from these units is described below and summarized in Table 1.

Controlled and uncontrolled emission rates from the sugar refinery emission units are presented in Attachment OC-EU3-F1.8 of the Title V operating permit renewal application submitted with this document. Maximum emission rates for each emission unit from the three scenarios, using the rotary drying system, using the fluidized bed drying system, and using both rotary and fluidized bed drying systems, are summarized in Table 4. Uncontrolled emissions of PM or PM/PM<sub>10</sub> from the two Central Dust Collection Systems (EU 021 and 022), the Fluidized Bed Dryer (EU 025), and Cooler Nos. 1 and 2 (EU 023 and 024) are more than 100 TPY, and therefore, CAM for PM or PM/PM<sub>10</sub> is required for these units.

### **1.2.4 Paint Spray Booth**

Okeelanta operates a paint spray booth at the sugar mill facility, which is used to repaint farm equipment that is used in the agricultural fields, trailers for the delivery of the cane to the mill, as well as other vehicles. The paint spray booth has glass fiber paint arrestor pads, which are used to reduce PM emissions.



The paint spray booth emits volatile organic compounds (VOC) and PM and has a federally enforceable emission limit for VOC. Since there are no control devices for VOC, CAM is not required for VOC. There is a control device for PM, but no emission limits. Therefore, a CAM Plan is not required for PM.

#### **1.2.5 NHPP Cogeneration Boilers A, B, and C**

Cogeneration Boilers A, B, and C at the NHPP cogeneration facility are biomass-fired spreader stoker steam boilers manufactured by Zurn and designed to produce approximately 506,100 lb/hr of steam at 1,500 pounds per square inch (psig) and 975 degrees Fahrenheit (°F). The boilers have a maximum heat input rate of 760 MMBtu/hr when firing bagasse, 605 MMBtu/hr when firing natural gas, and 490 MMBtu/hr when firing very low sulfur distillate oil.

The boilers have several control devices: a selective non-catalytic reduction system (SNCR) to reduce NO<sub>x</sub> emissions, mechanical dust collectors and an electrostatic precipitator (ESP) to reduce PM emissions, and an activated carbon injection system to reduce potential mercury (Hg) emissions. Each of the boilers is also subject to federally enforceable emission limits for CO, NO<sub>x</sub>, sulfur dioxide (SO<sub>2</sub>), PM/PM<sub>10</sub>, VOC, Hg, and lead (Pb). Note that the mercury control system is currently inactive and is only required to be operated in the event that the Hg emissions limit for the cogeneration boilers is exceeded. Since CO, SO<sub>2</sub>, and VOC emissions are not controlled by any control devices, these pollutants are exempt from the requirements of CAM. As shown in Table 1, and described below, uncontrolled PM and NO<sub>x</sub> emissions are greater than 100 TPY.

Uncontrolled NO<sub>x</sub>, PM/PM<sub>10</sub>, Hg, and Pb emissions from the NHPP boilers are estimated in Table 5. Annual emissions were calculated using the alternative fuel usage scenarios: 100-percent biomass (wood or bagasse), 75.1-percent biomass and 24.9-percent fuel oil, and 75.1-percent biomass and 24.9-percent natural gas. Uncontrolled emission factors based on fuel analysis or AP-42 were used in the calculations. In the combination fuel scenarios involving biomass and fuel oil or natural gas, the worst-case emission factors for either bagasse or wood combustion were used for each pollutant.

Since NO<sub>x</sub> is controlled by a control device and uncontrolled NO<sub>x</sub> emissions are more than the major source threshold of 100 TPY, NO<sub>x</sub> was initially determined to be a pollutant that requires CAM. However, each of the cogeneration boilers has a continuous emission monitoring system (CEMS), per Specific Condition No. F.6 of Permit No. 0090005-012-AV, to measure and record the emissions of NO<sub>x</sub> from the boiler and demonstrate compliance with the NO<sub>x</sub> CEMS. The CAM Rules contained in 40 CFR 64 specify that emission limitations or standards for which a Part 70 or 71

permit specifies a continuous compliance demonstration method are exempt from the requirements of CAM [40 CFR 64.2(b)(1)(vi)]. Therefore, a CAM Plan for NO<sub>x</sub> is not required for each of the cogeneration boilers.

PM/PM<sub>10</sub> emissions from each of the Boilers A, B, and C are controlled by an ESP and the uncontrolled emissions are more than the major source threshold of 100 TPY. Therefore, CAM is required for PM/PM<sub>10</sub>. Boilers A, B, and C are subject to the federal NESHAPs for Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR 63, Subpart DDDDD, which was promulgated on September 13, 2004. The compliance date for existing sources is September 13, 2007. The Subpart DDDDD rules regulate PM emissions from existing large solid fuel boilers. The CAM Rules contained in 40 CFR 64 specify that emission limitations or standards proposed by the Administrator after November 15, 1990, pursuant to Part 111 or 112 of the Clean Air Act (CAA), are exempt from the requirements of CAM [40 CFR 64.2(b)(1)(i)]. However, there are currently no emission limits applicable to the boilers due to Subpart DDDDD, and therefore, the boilers are not exempt from CAM for PM/PM<sub>10</sub>.

As shown in Table 1, uncontrolled Pb and Hg emissions from each of the Boilers A, B, and C are less than the major source threshold of 100 TPY. As a result, CAM is not required for Pb and Hg.

#### **1.2.6 NHPP Materials Handling and Storage Operations**

The materials handling and storage operations at the NHPP cogeneration facility include truck and railcar unloading operations, storage piles, transfer operations, conveyors, screens, crushers, hoppers and silos for handling and storing biomass (bagasse and wood), ash (fly and bottom), and a mercury removal agent (carbon). Baghouse control devices are used for controlling PM emissions from the fly ash and mercury control agent silos. Note that the mercury control system is currently inactive and is only required to be operated in the event that the Hg emissions limit for the cogeneration boilers is exceeded.

The fly ash and mercury control agent silos have federally enforceable emission limits for PM. As shown in Table 6, the uncontrolled PM emissions from the fly ash silo are less than 100 TPY, and therefore are not subject to the CAM Plan requirements. Similarly, uncontrolled PM emissions from the mercury removal agent silo are also less than 100 TPY; therefore, CAM is not required for the Hg control agent silo.

## 2.0 PM EMISSIONS FROM THE CENTRAL DUST COLLECTION SYSTEM NO. 1 (WET ROTOCLONE NO. 1) (EU 021)

### 2.1 Emissions Unit Identification

Central Dust Collection System No. 1 (from rotary dryer and transfer points)—EU ID No. 021

### 2.2 Applicable Regulations, Emissions Limits, and Monitoring Requirements

The Central Dust Collection System No. 1, which collects dust from the rotary dryer and various transfer points, is included in the overall sugar refinery PM emission limit of 36.8 TPY and 13.39 TPY PM<sub>10</sub> [Permit No. 0990005-005-AC]. The individual maximum allowable emissions from the Central Dust Collector System No. 1 are 4.13 TPY of PM and 1.65 TPY of PM<sub>10</sub>. The current visible emission (VE) limit is 5-percent opacity (6-minute average). Refined sugar production is limited to 390,000 TPY.

FDEP has waived the PM compliance test requirements and has specified the alternative standard of 5-percent opacity as the method for demonstrating compliance. Okeelanta is required to monitor and record the date, amount of sugar processed through the facility and through rotary and fluidized dryer beds, amount of sugar loaded out, and hours of operation on a daily basis.

### 2.3 Control Technology Description

PM emissions from the Central Dust Collection System No. 1 are controlled by an American Air Filter Type W wet rotoclone (Rotoclone No. 1). A detailed description of the control equipment is included in the Title V renewal application, Attachment OC-EU3-I3 (see Attachment B).

## 2.4 Monitoring Approach

The monitoring approach is based on the water injection rate to the wet rotoclone. The monitoring approach is summarized in the table below.

	<b>Indicator No. 1</b>
Indicator	Water injection rate to the wet rotoclone.
Measurement Approach	The water injection rate is measured using a flow rate sensor.
Indicator Range	An excursion is defined as any daily average water injection rate below 2 gpm. Excursions trigger an inspection, corrective action, and a recordkeeping and reporting requirement.
Data Representativeness	The water injection rate sensor is located on the water supply line.
Verification of Operational Status	N/A
QA/QC Practices and Criteria	The flow rate sensor is maintained in accordance with the manufacturer's recommendations.
Monitoring Frequency	Water flow rate is monitored once every day in a log.
Data Collection Procedures	Water flow rate data is recorded once every day.
Averaging Period	N/A

## 2.5 Justification

Both pressure drop across and water injection rate to the wet rotoclone are recognized parameters for controlling PM emissions from wet rotoclones. The pressure drop is a measure of the energy imparted to the gas stream and, therefore, the efficiency of the control process. The water injection rate is a measure of sufficient fresh water being supplied to the rotoclone and also relates to the efficiency of control. However, measuring the pressure drop continually in the rotoclones has proven to be impractical due to fouling in the instrument sample lines. Therefore, Okeelanta is requesting in the Title V permit renewal application that the pressure drop column be deleted in the construction restrictions conditions of Subsection D of Permit No. 0090005-012-AV. Okeelanta is proposing to monitor the water injection rate to the rotoclone for the purpose of assuring compliance with the PM emission standard.

The operating ranges are based on the design information and the efficiency ratings provided by the manufacturer, as well as the values experienced during the 2004 stack testing of the Rotoclone No. 1. The design parameters are provided in Attachment B. VE test results for the Rotoclone No. 1 are also included in Attachment B. The VE test results conducted during normal operation of the Wet Rotoclone No. 1 demonstrated that opacity from the Rotoclone No. 1 stack is less than 5 percent, which is also the alternative standard for demonstrating compliance with the PM standard. This

shows that monitoring during normal operation of the rotoclone can assure compliance with the PM standard.

When an excursion occurs, corrective action will be initiated, beginning with an evaluation of the occurrence, to determine the action required (if any) to correct the situation. All excursions will be documented and reported.

### **3.0 PM EMISSIONS FROM THE CENTRAL DUST COLLECTION SYSTEM NO. 2 (WET ROTOCLONE NO. 2) (EU 022)**

#### **3.1 Emissions Unit Identification**

Central Dust Collection System No. 2—EU ID No. 022

#### **3.2 Applicable Regulations, Emissions Limits, and Monitoring Requirements**

The Central Dust Collection System No. 2 is included in the overall sugar refinery PM emission limit of 36.8 TPY and 13.39 TPY PM<sub>10</sub> [Permit No. 0990005-005-AC]. The individual maximum allowable emissions from the Central Dust Collector System No. 2 are 0.18 TPY of PM and 0.073 TPY of PM<sub>10</sub>. The current VE limit is 5-percent opacity (6-minute average). Refined sugar throughput of material handling is limited to 390,000 TPY.

FDEP has waived the PM compliance test requirements and has specified the alternative standard of 5-percent opacity as the method for demonstrating compliance.

#### **3.3 Control Technology Description**

PM emissions from the Central Dust Collection System No. 2 are controlled by an American Air Filter Type W wet rotoclone (Rotoclone No. 2). A detailed description of the control equipment is included in the Title V renewal application, Attachment OC-EU3-I3 (see Attachment B).

### 3.4 Monitoring Approach

The monitoring approach is based on water injection rate to the wet rotoclone. The monitoring approach is summarized in the table below.

	<b>Indicator No. 1</b>
Indicator	Water injection rate to the wet rotoclone.
Measurement Approach	The water injection rate is measured using a flow rate sensor.
Indicator Range	An excursion is defined as any daily average water injection rate below 2 gpm. Excursions trigger an inspection, corrective action, and a recordkeeping and reporting requirement.
Data Representativeness	The water injection rate sensor is located on the water supply line.
Verification of Operational Status	NA
QA/QC Practices and Criteria	The flow rate sensor is maintained in accordance with the manufacturer's recommendations.
Monitoring Frequency	Water flow rate is monitored once every day in a log.
Data Collection Procedures	Water flow rate data is recorded once every day.
Averaging Period	N/A

### 3.5 Justification

Both pressure drop across and water injection rate to the wet rotoclone are recognized parameters for controlling PM emissions from wet rotoclones. The pressure drop is a measure of the energy imparted to the gas stream and, therefore, the efficiency of the control process. The water injection rate is a measure of sufficient fresh water being supplied to the rotoclone and also relates to the efficiency of control. However, measuring the pressure drop continually in the rotoclones has proven to be impractical due to fouling in the instrument sample lines. Therefore, Okeelanta is requesting in the Title V permit renewal application that the pressure drop column be deleted in the construction restrictions conditions of Subsection D of Permit No. 0090005-012-AV. Okeelanta is proposing to monitor the water injection rate to the rotoclone for the purpose of assuring compliance with the PM emission standard.

The operating ranges are based on the design information and the efficiency ratings provided by the manufacturer, and in the values experienced during the 2004 stack testing of the Wet Rotoclone No. 2. The design parameters are provided in Attachment B. Also provided in Attachment B are the results of VE testing conducted on the rotoclone. The VE test results conducted during normal operation of the Wet Rotoclone No. 1 demonstrated that opacity from the Rotoclone No. 2 stack is less than 5 percent, which is also the alternative standard for demonstrating compliance with the PM

standard. This shows that monitoring during normal operation of the rotoclone can assure compliance with the PM standard.

When an excursion occurs, corrective action will be initiated, beginning with an evaluation of the occurrence, to determine the action required (if any) to correct the situation. All excursions will be documented and reported.



#### 4.0 PM EMISSIONS FROM COOLER NO. 1 (WET ROTOCLONE NO. 3) (EU 023)

##### 4.1 Emissions Unit Identification

Cooler No. 1—EU ID No. 023.

##### 4.2 Applicable Regulations, Emissions Limits, and Monitoring Requirements

Cooler No. 1 of the rotary drying system is included in the overall sugar refinery PM emission limit of 36.8 TPY and 13.39 TPY PM<sub>10</sub> [Permit No. 0990005-005-AC]. Maximum allowable emissions from Cooler No. 1 are 10.01 TPY of PM and 5.59 TPY of PM<sub>10</sub>. The current VE limit is 5-percent opacity (6-minute average). Refined sugar production is limited to 390,000 TPY.

FDEP has waived the PM compliance test requirements and has specified the alternative standard of 5-percent opacity as the method for demonstrating compliance. Okeelanta is required to monitor and record the date, amount of sugar processed through the facility and through each cooler, and hours of operation on a daily basis.

##### 4.3 Control Technology Description

PM emissions from the rotary drying system Cooler No. 1 are controlled by an American Air Filter Type W wet rotoclone (Rotoclone No. 3). A detailed description of the control equipment is included in the Title V renewal application, Attachment OC-EU3-I3 (see Attachment B).

##### 4.4 Monitoring Approach

The monitoring approach is based on water injection rate to the wet rotoclone. The monitoring approach is summarized in the table below.

<b>Indicator No. 1</b>	
Indicator	Water injection rate to the wet rotoclone.
Measurement Approach	The water injection rate is measured using a flow rate sensor.
Indicator Range	An excursion is defined as any daily average water injection rate below 2 gpm. Excursions trigger an inspection, corrective action, and a recordkeeping and reporting requirement.
Data Representativeness	The water injection rate sensor is located on the water supply line.
Verification of Operational Status	N/A
QA/QC Practices and Criteria	The flow rate sensor is maintained in accordance with the manufacturer's recommendations.
Monitoring Frequency	Water flow rate is monitored once every day in a log.
Data Collection Procedures	Water flow rate data is recorded once every day.
Averaging Period	N/A

#### **4.5 Justification**

Both pressure drop and water injection rate to the wet rotoclone are recognized parameters for controlling PM emissions from wet rotoclones. The pressure drop is a measure of the energy imparted to the gas stream and, therefore, the efficiency of the control process. The water injection rate is a measure of sufficient fresh water being supplied to the wet rotoclone and also relates to the efficiency of collection. However, measuring the pressure drop continually in the wet rotoclone has proven to be impractical due to fouling in the instrument sample lines. Therefore, Okeelanta is requesting in the Title V permit renewal application that the pressure drop column be deleted in the construction restriction conditions of Subsection D of Permit No. 0090005-012-AV. Okeelanta is proposing to monitor the water injection rate to the wet rotoclone for the purpose of assuring compliance with the PM emission standard.

The operating ranges are based on the design information and the efficiency ratings provided by the manufacturer. The design parameters are provided in Attachment B.

A VE compliance test will be conducted on the Rotoclone No. 3 stack in the near future and the minimum water injection rate will be set based on the test. The VE test, which will be conducted during normal operation, is also an alternative standard for demonstrating compliance with the PM standard, if opacity is under 5 percent.

When an excursion occurs, corrective action will be initiated, beginning with an evaluation of the occurrence, to determine the action required (if any) to correct the situation. All excursions will be documented and reported.

## **5.0 PM EMISSIONS FROM COOLER NO. 2 (WET ROTOCLONE NO. 4) (EU 024)**

### **5.1 Emissions Unit Identification**

Cooler No. 2—EU ID No. 024

### **5.2 Applicable Regulations, Emissions Limits, and Monitoring Requirements**

Cooler No. 2 of the rotary drying system is included in the overall sugar refinery PM emission limit of 36.8 TPY and 13.39 TPY PM<sub>10</sub> [Permit No. 0990005-005-AC]. Maximum allowable emissions from Cooler No. 2 are 10.01 TPY of PM and 5.59 TPY of PM<sub>10</sub>. The current VE limit is 5-percent opacity (6-minute average). Refined sugar production is limited to 390,000 TPY.

FDEP has waived the PM compliance test requirements and has specified the alternative standard of 5-percent opacity as the method for demonstrating compliance. Okeelanta is required to monitor and record the date, amount of sugar processed through the facility and through each cooler, and hours of operation on a daily basis.

### **5.3 Control Technology Description**

PM emissions from the rotary drying system Cooler No. 2 are controlled by an American Air Filter Type W wet rotoclone (Rotocclone No. 4). A detailed description of the control equipment is included in the Title V renewal application, Attachment OC-EU3-13 (see Attachment B).

#### 5.4 Monitoring Approach

The monitoring approach is based on water injection rate to the wet rotoclone. The monitoring approach is summarized in the table below.

<b>Indicator No. 1</b>	
Indicator	Water injection rate to the wet rotoclone.
Measurement Approach	The water injection rate is measured using a flow rate sensor.
Indicator Range	An excursion is defined as any daily average water injection rate below 2 gpm. Excursions trigger an inspection, corrective action, and a recordkeeping and reporting requirement.
Data Representativeness	The water injection rate sensor is located on the water supply line.
Verification of Operational Status	NA
QA/QC Practices and Criteria	The flow rate sensor is maintained in accordance with the manufacturer's recommendations.
Monitoring Frequency	Water flow rate is monitored once every day in a log.
Data Collection Procedures	Water flow rate data is recorded once every day.
Averaging Period	N/A

#### 5.5 Justification

Both pressure drop and water injection rate to the wet rotoclone are recognized parameters for controlling PM emissions from wet rotoclones. The pressure drop is a measure of the energy imparted to the gas stream and, therefore, the efficiency of the control process. The water injection rate is a measure of sufficient fresh water being supplied to the wet rotoclone, as well as the efficiency of PM control. However, measuring the pressure drop continually in the wet rotoclone has proven to be impractical due to fouling in the instrument sample lines. Therefore, Okeelanta is requesting in the Title V permit renewal application that the pressure drop column be deleted in the construction restriction conditions of Subsection D of Permit No. 0090005-012-AV. Okeelanta is proposing to monitor the water injection rate to the wet rotoclone for the purpose of assuring compliance with the PM emission standard.

The operating ranges are based on the design information and the efficiency ratings provided by the manufacturer. The design parameters are provided in Attachment B.

A VE compliance test will be conducted on the Rotoclone No. 4 stack in the near future and the minimum water injection rate will be set based on the test. The VE test, which will be conducted

during normal operation, is also an alternative standard for demonstrating compliance with the PM standard, if opacity is under 5 percent.

When an excursion occurs, corrective action will be initiated, beginning with an evaluation of the occurrence, to determine the action required (if any) to correct the situation. All excursions will be documented and reported.

## **6.0 PM EMISSIONS FROM THE FLUIDIZED BED DRYER/COOLER (EU 025)**

### **6.1 Emissions Unit Identification**

Fluidized Bed Dryer/Cooler—EU ID No. 025

### **6.2 Applicable Regulations, Emissions Limits, and Monitoring Requirements**

The Fluidized Bed Dryer/Cooler of the fluidized bed drying system is included in the overall sugar refinery PM emission limit of 36.8 TPY and 13.39 TPY PM<sub>10</sub> [Permit No. 0990005-005-AC]. The current VE limit is 5-percent opacity (6-minute average). Refined sugar production is limited to 390,000 TPY.

FDEP has waived the PM compliance test requirements and has specified the alternative standard of 5-percent opacity as the method for demonstrating compliance. Okeelanta is required to monitor and record the date, amount of sugar processed through the facility and through the rotary and fluidized bed dryers, amount of sugar loaded out, and hours of operation on a daily basis.

### **6.3 Control Technology Description**

PM emissions from the fluidized bed drying system are controlled by a BETH GmbH pulse jet compressed air baghouse. A detailed description of the control equipment is included in the Title V renewal application, Attachment OC-EU3-I3 (see Attachment B).

#### 6.4 Monitoring Approach

The monitoring approach is based on pressure drop across the baghouse. The monitoring approach is summarized in the table below.

	<b>Indicator No. 1</b>
Indicator	Pressure drop across the baghouse.
Measurement Approach	Pressure drop is monitored with a manometer.
Indicator Range	An excursion is defined as any daily average pressure drop value below 5 millibars, after steady-state operations have been achieved. Excursions trigger an inspection, corrective action, and a recordkeeping and reporting requirement.
Data Representativeness	The monitoring system consists of a manometer, which measures the pressure drop across the baghouse.
Verification of Operational Status	NA
QA/QC Practices and Criteria	The manometer is maintained in accordance with the manufacturer's recommendations.
Monitoring Frequency	Pressure drop is monitored once every day.
Data Collection Procedures	Pressure drop data is recorded once every day after steady state operations have been achieved.
Averaging Period	N/A

#### 6.5 Justification

Okeelanta is proposing to monitor pressure drop across the baghouse, which is a recognized parameter for controlling PM emissions from baghouses. The pressure drop is a measure of the energy imparted to the gas stream and, therefore, the efficiency of the control process. The normal operating range of pressure drop for the Fluidized Bed Dryer/Cooler baghouse is 5 to 20 millibars. Other manufacturer design information is provided in Attachment B.

A pressure drop less than 5 millibars means a broken bag or flow bypass around the bags, which would require shutdown and replacement of bags. Results of annual VE tests conducted during normal operation of the Fluidized Bed Dryer/Cooler and the associated baghouse demonstrated that opacity from the baghouse stack is less than 5 percent, which is also the alternative standard for demonstrating compliance with the PM standard. This shows that monitoring for the normal operation of the baghouse can assure compliance with the PM standard. VE test data for the Fluidized Bed Dryer/Cooler are presented in Attachment B.

When an excursion occurs, corrective action will be initiated, beginning with an evaluation of the occurrence, to determine the action required (if any) to correct the situation. All excursions will be documented and reported.



## **7.0 PM EMISSIONS FROM COGENERATION BOILERS A, B, AND C**

### **7.1 Emissions Unit Identification**

NHPP Cogeneration Boilers A, B, and C

### **7.2 Applicable Regulations, Emissions Limits, and Monitoring Requirements**

Cogeneration Boilers A, B, and C at the NHPP cogeneration facility are biomass-fired spreader stoker steam boilers manufactured by Zurn and designed to produce approximately 506,100 lb/hr of steam each. Each boiler has a PM emission limit of 0.026 lb/MMBtu or 19.8 lb/hr and a NO<sub>x</sub> emission limit of 0.15 lb/MMBtu or 114.0 lb/hr.

Compliance with the NO<sub>x</sub> emission standard is determined by data collected by the NO<sub>x</sub> continuous emission measurement system (CEMS) in terms of "lb/MMBtu of heat input". Compliance with the PM standard is determined by the average of three test runs conducted in accordance with U.S. Environmental Protection Agency (EPA) Method 5. Each boiler also has a stack opacity limit of 6-minute block average opacity of 20 percent, except for one 6-minute block per hour that is less than or equal to 27-percent opacity. Compliance with the opacity standard is determined by a COMS, which measures opacity continuously at 1-minute intervals.

### **7.3 Control Technology Description**

PM emissions from each of the Boilers A, B, and C are controlled by mechanical dust collectors and an ESP. NO<sub>x</sub> emissions are controlled by a SNCR system. A detailed description of the control equipment is included in the Title V renewal application, Attachment OC-EU5-I3 (see Attachment B).

## 7.4 Monitoring Approach

The monitoring approach is based on monitoring opacity of each boiler stack through the existing COMS at each stack. The monitoring approach is summarized in the table below.

	<b>Indicator No. 1</b>
Indicator	Opacity
Measurement Approach	Continuous opacity monitoring system (COMS).
Indicator Range	An excursion is defined as any 1-hour block average of opacity greater than 20%, excluding periods of startup, shutdown, and malfunction pursuant to Rule 62-210.700, F.A.C.  An excursion will trigger an evaluation of operation of the boiler and ESP. Corrective action will be taken as necessary. Excursions trigger recordkeeping and reporting requirements.
Data Representativeness	Opacity measurements are made in the stack.
Verification of Operational Status	N/A
QA/QC Practices and Criteria	Install and operate COMS according to 40 CFR Part 60 Appendix B, Performance Specification 1 and general provisions 60.13.
Monitoring Frequency	Opacity is monitored continuously.
Data Collection Procedures	One-minute averages are recorded through the DAS. Daily reports with all hourly averages are generated. One-hour block averages are determined from the average of all the valid 1-minute averages during a block hour.
Averaging Period	The averaging period for opacity observations is a 1-hour block average.

### 7.4.1 Justification

The CAM Rule, in 40 CFR 64.3(d)(1), states that if a COMS is required pursuant to other authority under the CAA or state or local law, the owner or operator shall use such system to satisfy the requirements of this part. NHPP is proposing to use data from the COMS at each of the Boilers A, B, and C stacks and monitor the 1-hour block average opacity to assure compliance with the PM emission standard.

The NHPP boilers are subject to CAM for PM emissions, not VE. Annual compliance tests for PM are performed via EPA Method 5 and consist of three test runs each typically exceeding 1 hour in duration each. The opacity data NHPP has used to correlate PM emissions and opacity were the

average opacity for the duration of the test run (60 minutes) (see discussion below). Therefore, a 1-hour block averaging time for the CAM opacity indicator is appropriate for compliance assurance of PM emissions. As described below, at least three other power plants in Florida have received averaging times of 1-hour block duration for their CAM Plans.

NHPP has researched other CAM Plans for PM for coal-fired power plants that also use opacity as the CAM parameter. For Cedar Bay Generating Company, FDEP issued the CAM Plan based on a 10-percent opacity reading as the level defining an excursion. This level of opacity would have to be exceeded for five consecutive 6-minute averages in order to define an excursion. The rationale stated in the CAM Plan was as follows:

“Based on available data under normal operation, the representative stack opacity of each unit is in the range of 3% to 7%. A 50% average opacity above 7% during non-startup or shutdown periods is atypical and may indicate a potential problem with the baghouse.”

St. Johns River Power Park received an 18-percent opacity level as the CAM indicator, based on a 1-hour block average. The rationale stated in the CAM Plan was as follows:

“Based on available data under normal operation, the representative stack opacity of each unit is in the range of 5% to 15%. In addition, the COMS are located upstream of the scrubber, and, as such, the opacity at the stack exit is lower than the value indicated by the COMS. Therefore, 18% opacity during non-startup or shutdown periods is atypical and may indicate a potential problem with the ESP.”

Lakeland McIntosh received a 12-percent opacity level as the CAM indicator, based on a 1-hour average, excluding periods of startup, shutdown, and malfunction. Indiantown Cogeneration received a 6-percent opacity level as the CAM indicator, based on a 1-hour block average, excluding startup and shutdown.

For the NHPP boilers, compliance with the PM standard is currently determined by the average of three test runs conducted in accordance with EPA Method 5. Data for the compliance test runs from 2002 through 2005 were collected and are summarized in Table C-1. Based on the opacity data from the COMS, which were also collected during the test runs, an opacity versus PM emission rate plot was generated, which is shown in Figure C-1. The plot indicates a general increase in opacity as the PM emission rate increases. Except for one observation of 5-percent opacity at 14.6 lb/hr of PM

emission, opacities of 10 to 14 percent were observed for a PM emission rate in the range of 10 to 12 lb/hr. The PM emission limit for Boilers A, B, and C is 19.8 lb/hr at 760 MMBtu/hr heat input.

The variability in opacity versus PM emission rate is typical. A sudden and sustained step-increase in opacity usually indicates a potential problem with the ESP.

Using the same rationale as for Cedar Bay Generating Company, the indicator range for the NHPP Boilers A, B, and C should be set at 50-percent greater than 14-percent opacity (i.e., at 21-percent opacity). A 50-percent average opacity above the normal range is atypical, and setting the indicator range at 50-percent greater than 14-percent opacity (i.e., at 21-percent opacity), is an appropriate range of opacity, above which may indicate potential problems with the ESP. However, Boilers A, B, and C each have a stack opacity limit of 20 percent. Therefore, the indicator range is set at a maximum of 20 percent during non-startup, shutdown, and malfunction conditions.

When an excursion occurs, corrective action will be initiated, beginning with an evaluation of the occurrence, to determine the action required (if any) to correct the situation. All excursions will be documented and reported.

**TABLE 1**  
**CAM APPLICABILITY DETERMINATION FOR OKEELANTA CORPORATION AND NEW HOPE POWER PARTNERSHIP**

Emission Source	Title V EU ID	Control Equipment	Pollutants with Emission Limits	Uncontrolled Emission Rate (TPY)	CAM Plan Required? (Yes/No)	Comments
<b>Okeelanta Mill Boiler No. 16</b>	014	Flue Gas Recirculation	NO <sub>x</sub>	126.8	No	Title V permit specifies continuous compliance determination method.
		None	CO	--	No	No control device for CO.
<b>Okeelanta Sugar Transshipment Facility</b>						
Central Vacuum System	018	Baghouse	PM	<100	No	PM uncontrolled emissions < 100 TPY.
Packaging Lines (1-9)	019	Baghouse	PM	2.5	No	PM uncontrolled emissions < 100 TPY.
Grinder	020	None	PM	--	No	No control device.
Sugar Silo Nos. 1, 2, and 3	026, 027, 028	Baghouse	PM	1.2	No	PM uncontrolled emissions < 100 TPY.
Powdered Sugar Dryer/Cooler	045	Baghouse	PM	<100	No	PM uncontrolled emissions < 100 TPY.
Powdered Sugar Hopper	046	None	PM	--	No	No control device.
Packaging Lines (11 - 14)	047	Baghouse	PM	1.1	No	PM uncontrolled emissions < 100 TPY.
<b>Okeelanta Sugar Refinery</b>						
Central Dust Collection System No. 1	021	Rotoclone	PM	4,135.8	Yes	PM uncontrolled emissions >100 TPY.
(Wet Rotoclone No. 1)		Rotoclone	PM <sub>10</sub>	165.4	Yes	PM <sub>10</sub> uncontrolled emissions >100 TPY.
Central Dust Collection System No. 2	022	Rotoclone	PM	183.4	Yes	PM uncontrolled emissions >100 TPY.
(Wet Rotoclone No. 2)		Rotoclone	PM <sub>10</sub>	7.3	No	PM <sub>10</sub> uncontrolled emissions <100 TPY.
Cooler No. 1 / Rotoclone No. 3	023	Rotoclone	PM	227.5	Yes	PM uncontrolled emissions >100 TPY.
(Wet Rotoclone No. 3)		Rotoclone	PM <sub>10</sub>	9.1	No	PM <sub>10</sub> uncontrolled emissions <100 TPY.
Cooler No. 2 / Rotoclone No. 4	024	Rotoclone	PM	227.5	Yes	PM uncontrolled emissions >100 TPY.
(Wet Rotoclone No. 4)		Rotoclone	PM <sub>10</sub>	9.1	No	PM <sub>10</sub> uncontrolled emissions <100 TPY.
Fluidized Bed Dryer	025	Baghouse	PM	3,900.0	Yes	PM uncontrolled emissions >100 TPY.
		Baghouse	PM <sub>10</sub>	156.0	Yes	PM <sub>10</sub> uncontrolled emissions >100 TPY.
Bulk Load-out Operations	034	None	PM	--	No	No control device.
		None	PM <sub>10</sub>	--	No	No control device.
Transfer Bulk Load-out Operations	035	None	PM	--	No	No control device.
		None	PM <sub>10</sub>	--	No	No control device.
<b>Okeelanta Paint Booth</b>	048	None	VOC	--	No	No control device.
<b>New Hope Power Boilers A, B, C</b>	001, 002, 003	ESP	PM	7,223.5	Yes	PM uncontrolled emissions >100 TPY.
(each)		ESP	PM <sub>10</sub>	7,223.5	Yes	PM <sub>10</sub> uncontrolled emissions >100 TPY.
		SNCR	NO <sub>x</sub>	732.3	No	Title V permit specifies continuous compliance determination method.
		None	CO	--	No	No control device.
		None	SO <sub>2</sub>	--	No	No control device.
		None	VOC	--	No	No control device.
		ESP	Pb	0.4	No	Pb uncontrolled emissions <100 TPY.
		Carbon Injection	Hg	0.018	No	Hg uncontrolled emissions <100 TPY.
<b>New Hope Power Material Handling and Storage Operations</b>						
Fly Ash Silo	004	Baghouse	PM	93.9	No	PM uncontrolled emissions < 100 TPY.
Mercury Reagent Silo	004	Baghouse	PM	0.1	No	PM uncontrolled emissions < 100 TPY.

**TABLE 2**  
**UNCONTROLLED NOX EMISSIONS FROM BOILER NO. 16, OKEELANTA CORPORATION**

Regulated Pollutant	Natural Gas Combustion					
	Emission Factor	Emission Factor	Ref.	Activity Factor <sup>a</sup>	Hourly Emissions	Annual Emissions <sup>b</sup>
	(lb/10 <sup>6</sup> scf)	(lb/MMBtu)		(MMBtu/hr)	(lb/hr)	(TPY)
Nitrogen oxides (NO <sub>x</sub> )	140	0.14	1	211	28.96	126.85

## References:

- Factors for natural gas combustion from AP-42, Table 1.4-1 (7/98).  
Factors were converted to lb/MMBtu by dividing by 1,020 Btu/scf.

## Footnotes:

- <sup>a</sup> The maximum permitted heat input rate is 211 MMBtu/hr for natural gas and 202 MMBtu/hr for fuel oil.
- <sup>b</sup> Based on maximum operation of 8,760 hours.

## Sample Calculations:

Hourly Emissions = Emission Factor x Activity Factor

Annual Emissions = Hourly Emissions x hours of operation (hrs/yr) / 2,000 (lb/ton)

**TABLE 3  
UNCONTROLLED PM EMISSIONS FROM THE TRANSSHIPMENT FACILITY**

Source	Control Device	Point Point ID	Type of Operation <sup>a</sup>	M Moisture Content (%)	U Wind Speed <sup>b</sup> (MPH)	Uncontrolled PM Emission Factor (lb/ton)	Annual Activity Factor <sup>c</sup> (TPY)	No. of Drop Points	Maximum Uncontrolled Annual PM Emissions (tons/yr)
Packaging Lines (1-9)	Baghouse	019	CONTINUOUS DROP	0.25	1.3	0.00755	218,579	3	2.5
Sugar Silo No. 1, 2, and 3	Baghouse	026, 027, 028	CONTINUOUS DROP	0.25	1.3	0.00755	315,725	1	1.2
Packaging Lines (11 - 14)	Baghouse	047	CONTINUOUS DROP	0.25	1.3	0.00755	97,146	3	1.1

## Notes/References:

<sup>a</sup> Continuous Drop Emission Factors are computed from AP-42 (USEPA, 1995) Section 13.2.4:

$$E = k \times 0.0032 \times (U/5)^{1.3} / (M/2)^{1.4} \text{ lb/ton, where } k = 0.74 \text{ for PM.}$$

<sup>b</sup> Since the transfer points are enclosed, a wind speed of 1.3 mph was used for which the equation maintains an "A" quality rating.

<sup>c</sup> Based on 865 tons/day sugar production, permit condition in permit No. 0990005-012-AV. Total throughput prorated through packaging lines based on number of lines.

**TABLE 4**  
**ANNUAL AND SHORT TERM UNCONTROLLED PARTICULATE MATTER EMISSIONS FROM OKEELANTA SUGAR REFINERY**  
**USING THE COMBINATION OF THE FLUIDIZED BED DRYING SYSTEM AND THE ROATRY DRYING SYSTEM**

Source Emission Point Description	Emission Unit ID No.	Refined Sugar Throughput		PM Uncontrolled Emission Factor	Uncontrolled PM Emissions (TPY)
		(TPD)	(lb/hr)		
<b>Particulate Matter (PM)</b>					
<u>Fluidized Bed Drying System</u>					
Fluidized Bed Baghouse	025	1,050	87,500	260,000	1.5 % 3900.0
<u>Rotary Drying System</u>					
Cooler No. 1 / Wet Rotoclone No. 3	023	450	37,500	130,000	0.175 % 227.5
Cooler No. 2 / Wet Rotoclone No. 4	024	450	37,500	130,000	0.175 % 227.5
AAF Skimmer/Wet Rotoclone No. 1 (from dryer)	021	450	37,500	130,000	3.150 % 4095.0
<u>Material Handling</u>					
AAF Skimmer/Wet Rotoclone No.1 (from transfer points)	021	1,500	125,000	390,000	0.2090 lb/ton 40.8
AAF Wet Rotoclone No. 2	022	1,500	125,000	390,000	0.9407 lb/ton 183.4
<u>Bulk and Transfer Load-Out Operations</u>					
Bulk Load-out Operations	034	600	88,000	117,000	0.105 lb/ton 6.1
Transfer Bulk Load-out Operations	035	1,200	144,000	273,000	0.105 lb/ton 14.3
					8694.6
<b>Particulate Matter (PM<sub>10</sub>)</b>					
<u>Fluidized Bed Drying System</u>					
Fluidized Bed Baghouse	025	1,050	87,500	260,000	0.060 % 156.0
<u>Rotary Drying System</u>					
Cooler No. 1 / Wet Rotoclone No. 3	023	450	37,500	130,000	0.007 % 9.1
Cooler No. 2 / Wet Rotoclone No. 4	024	450	37,500	130,000	0.007 % 9.1
AAF Skimmer/Wet Rotoclone No. 1 (from dryer)	021	450	37,500	130,000	0.126 % 163.8
<u>Material Handling</u>					
AAF Skimmer/Wet Rotoclone No. 1 (from transfer points)	021	1,500	125,000	390,000	0.00836 lb/ton 1.6
AAF Wet Rotoclone No. 2	022	1,500	125,000	390,000	0.03763 lb/ton 7.3
<u>Bulk and Transfer Load-Out Operations</u>					
Bulk Load-out Operations	034	600	88,000	117,000	0.00418 lb/ton 0.2
Transfer Bulk Load-out Operations	035	1,200	144,000	273,000	0.00418 lb/ton 0.6
					347.8

Note: See Attachment OC-EU3-F1.8 of the Title V renewal application for footnotes concerning emission factors and control efficiencies.



**TABLE 5**  
**MAXIMUM ANNUAL UNCONTROLLED EMISSIONS PER BOILER, NEW HOPE POWER PARTNERSHIP COGENERATION FACILITY**

Regulated Pollutant	Biomass		Alternate Fuel			Total Annual Uncontrolled Emissions Per Boiler (TPY)	
	Uncontrolled Emission Factor (lb/MMBtu)	Activity Factor (10 <sup>12</sup> Btu/yr)	Uncontrolled Annual Emissions (TPY)	Uncontrolled Emission Factor (lb/MMBtu)	Activity Factor (10 <sup>12</sup> Btu/yr)		Uncontrolled Annual Emissions (TPY)
<b><u>100% Bagasse</u></b>							
Particulate (PM)	2.17 (1)	6.658	7223.5	--	--	--	7,223.5 <sup>a</sup>
Nitrogen oxides	0.17 (1)	6.658	565.9	--	--	--	565.9
Lead	1.2E-04 (2)	6.658	0.399	--	--	--	0.40 <sup>a</sup>
Mercury	1.3E-06 (2)	6.658	0.0043	--	--	--	0.004
<b><u>100% Wood</u></b>							
Particulate (PM)	0.56 (3)	6.658	1864.1	--	--	--	1,864.1
Nitrogen oxides	0.22 (3)	6.658	732.3	--	--	--	732.3 <sup>a</sup>
Lead	4.8E-05 (3)	6.658	0.160	--	--	--	0.16
Mercury	5.4E-06 (3)	6.658	0.0180	--	--	--	0.018 <sup>a</sup>
<b><u>75.1% Biomass / 24.9% Fuel Oil <sup>b</sup></u></b>							
Particulate (PM)	2.17 (1)	5.000	5424.8	0.014 (4)	1.658	11.6	5,436.45
Nitrogen oxides	0.22 (3)	5.000	550.0	0.174 (4)	1.658	144.2	694.21
Lead	1.2E-04 (2)	5.000	0.300	9.0E-06 (4)	1.658	7.46E-03	0.31
Mercury	5.4E-06 (3)	5.000	0.0135	3.0E-06 (4)	1.658	0.0025	0.016
<b><u>75.1% Biomass / 24.9% Natural Gas <sup>b</sup></u></b>							
Particulate (PM)	2.17 (1)	5.000	5424.8	0.0075 (5)	1.658	6.2	5,431.06
Nitrogen oxides	0.22 (3)	5.000	550.0	0.186 (5)	1.658	154.2	704.15
Lead	1.2E-04 (2)	5.000	0.300	4.9E-07 (5)	1.658	4.06E-04	0.30
Mercury	5.4E-06 (3)	5.000	0.0135	2.6E-07 (5)	1.658	2.11E-04	0.014

<sup>a</sup> Denotes maximum annual emissions for any fuel scenario.

<sup>b</sup> Utilizes the worst-case emission factor for either bagasse or wood.

**References**

- (1) Bagasse combustion in sugar mills, AP-42, Table 1.8-1.
- (2) Fuel analysis data from sugar industry.
- (3) Wood combustion, AP-42, Tables 1.6-1, 1.6-2, and 1.6-4.
- (4) Fuel oil combustion, AP-42, Tables 1.3-1 and 1.3-10.
- (5) Natural gas combustion, AP-42, Tables 1.4-1, 1.4-2, and 1.4-4.

**TABLE 6**  
**NEW HOPE POWER PARTNERSHIP COGENERATION FACILITY UNCONTROLLED EMISSIONS**  
**FROM MATERIALS HANDLING AND STORAGE OPERATIONS**

SOURCE	Controlled		Activity Factor (acfm)	Control	Control Efficiency (%)	Uncontrolled		Uncontrolled	
	Emission Factor					Emission Factor <sup>a</sup>		Maximum Emissions <sup>b</sup>	
	PM (gr/acf)	PM <sub>10</sub> (gr/acf)				PM (gr/acf)	PM <sub>10</sub> (gr/acf)	PM(TSP) (TPY)	PM <sub>10</sub> (TPY)
Fly Ash Silo	0.01	0.00473	2,500	BAGHOUSE	99	1.0	0.473	93.9	44.4
Mercury Reagent Silo	0.01	0.00473	2,500	BAGHOUSE	99	1.0	0.473	0.11	0.05

## Notes/References:

<sup>a</sup> Back-calculated based on controlled emission rate and control efficiency used in the controlled emission rate calculation.

<sup>b</sup> For Fly Ash silo, based on 8,760 hr/yr operation. For Mercury Reagent Silo, based on 8 lb/hr/unit usage @ 8,760 hr/yr (105 TPY total); 10 TPH loaded per truck (10 hrs/yr operating time).

**ATTACHMENT A**

**SIGNATURE PAGES**

# APPLICATION INFORMATION

## Professional Engineer Certification

1. Professional Engineer Name: <b>David A. Buff</b> Registration Number: <b>19011</b>
2. Professional Engineer Mailing Address... Organization/Firm: <b>Golder Associates Inc.**</b> Street Address: <b>6241 NW 23<sup>rd</sup> Street, Suite 500</b> City: <b>Gainesville</b> State: <b>FL</b> Zip Code: <b>32653</b>
3. Professional Engineer Telephone Numbers... Telephone: <b>(352) 336-5600</b> ext. <b>545</b> Fax: <b>(352) 336-6603</b>
4. Professional Engineer Email Address: <b>dbuff@golder.com</b>
5. Professional Engineer Statement: <i>I, the undersigned, hereby certify, except as particularly noted herein*, that:</i> <i>(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</i> <i>(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.</i> <i>(3) If the purpose of this application is to obtain a Title V air operation permit (check here <input type="checkbox"/>, 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.</i> <i>(4) If the purpose of this application is to obtain an air construction permit (check here <input type="checkbox"/>, 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 <input type="checkbox"/>, 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.</i> <i>(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 <input checked="" type="checkbox"/>, 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.</i>  Signature: <u>David A. Buff</u> Date: <u>12/15/05</u>

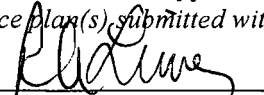
\* Attach any exception to certification statement.

Board of Professional Engineers Certificate of Authorization #00001670

## 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: <b>Ricardo A. Lima, Vice President and General Manager</b>
2. Application Responsible Official Qualification (Check one or more of the following options, as applicable): <input checked="" type="checkbox"/> 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. <input type="checkbox"/> For a partnership or sole proprietorship, a general partner or the proprietor, respectively. <input type="checkbox"/> For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official. <input type="checkbox"/> The designated representative at an Acid Rain source.
3. Application Responsible Official Mailing Address... Organization/Firm: <b>Okeelanta Corporation</b> Street Address: <b>21250 U.S. Highway 27 South</b> City: <b>South Bay</b> State: <b>FL</b> Zip Code: <b>33493</b>
4. Application Responsible Official Telephone Numbers... Telephone: <b>(561) 993-1600</b> ext. Fax: <b>(561) 992-7326</b>
5. Application Responsible Official Email Address:
6. Application Responsible Official Certification: <i>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.</i>  Signature <u></u> Date <u>12-14-05</u>

**VISIBLE EMISSIONS OBSERVATION FORMS**

# South Florida Environmental Services

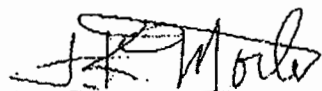
## VISIBLE EMISSIONS TEST REPORT

**PREPARED FOR:**  
OKEELANTA CORPORATION  
21250 US HIGHWAY 27  
SOUTH BAY, FLORIDA

**CONCERNING:**  
Visible Emissions Test Program  
Eleven Emissions Units  
Okeelanta Corporation  
South Bay, Florida  
September 21-22, 2003

**PREPARED BY:**  
South Florida Environmental Services, LLC  
6861 Vista Parkway North  
West Palm beach, Florida 33411

I hereby certify that the information contained in this report is true and accurate to the best of my knowledge.



Francis K. Morlu  
Manager, Technical Operations

Oct. 8, 2004  
Date

OKEELANTA CORPORATION  
VISIBLE EMISSIONS TEST REPORT

**COMPENDIUM:**

At the request of Okeelanta Corporation and in compliance with the Florida Statutes [62-297.310(4)(a)2, F.A.C.], as stipulated in their permit (No. 0990005-003-AV), South Florida Environmental Services performed Compliance Testing for Visible Emissions at Okeelanta Corporation on September 21 & 22, 2004. Testing was conducted on eleven of the twelve Emissions Units that are not subject to a multiple-valued opacity standard (potential PM Emissions < 100 tons per year). Emissions Unit # 028 was tested on 6/11/04.

During the compliance test, all units were observed to be operating at normal condition. The test on each unit was conducted for a thirty-minute period. All testing and data reduction were conducted in accordance with EPA Method 9 as found in 40 CFR 60 Appendix A, as amended.

Francis K Morlu and John Jallah of South Florida Environmental Services were the Certified Visible Emissions Evaluators at the time of testing. Mr. Mathew Capone, Director of Environmental Programs, was responsible for coordinating the plant operation.

The results (summarized in Table 1), show that all the Emissions Units are operating in compliance with Florida Statutes and as required by regulatory conditions stipulated in their permit (NO. 0990005-003-AV).

**Table 1: Summary of Results**

Location	Highest Six Minute Average Opacity (%)	Overall Opacity (%)	Allowable Opacity (%)
EU 018*	-	-	-
EU 019	0.0 %	0.0	5
EU 020	0.0%	0.0	5
EU 021	0.0%	0.0	5
EU 022	0.0%	0.0	5
EU 023*	-	-	-
EU 024*	-	-	-
EU 025	0.0%	0.0	5
EU 026	0.0%	0.0	5
EU 027	0.0%	0.0	5
EU 028 <sup>y</sup>	-	-	-
EU 034	0.0%	0.0	5
EU 035	0.0%	0.0	5
EU046	0.0%	0.0	5
EU 047	0.0%	0.0	5

\* These Units are out of service; <sup>y</sup>Visible Emission done on 6/11/04.





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VISIBLE EMISSION OBSERVATION FORM 1

Method 9 203A 203B Other

Company Name: OKEELANTA CORP  
 Facility Name: SAME AS ABOVE  
 Street Address: 2125 U.S. HIGHWAY 27  
 City: SOUTH BAY State: FL Zip: 33493

Process: DUST COLLECTION Unit: 1 Operating Mode: NORMAL Operating Mode:  
 Control Equipment:

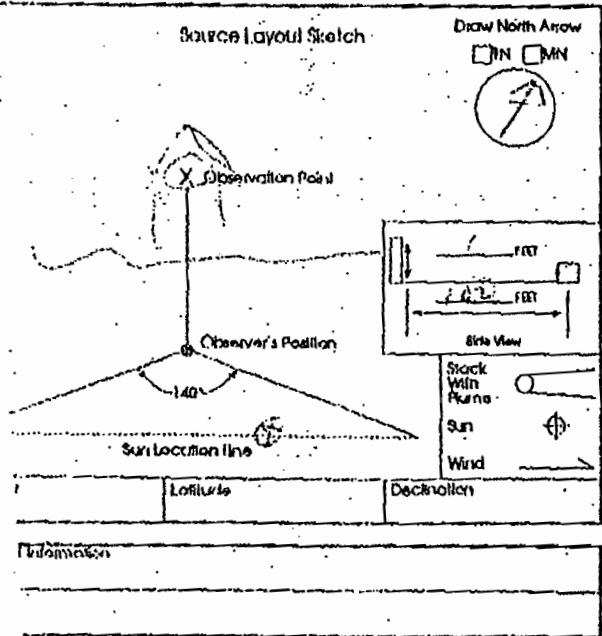
Describe Emission Point: TOP OF DUST COLLECTOR  
 STACK

Height of Emission Pt. from Observer's Position: Start 11 End 1  
 Direction to Emission Pt. (Degrees): Start 0 End 180

Direction to Obs. Pt. (Degrees): Start 0 End 0  
 Direction to Emission Pt. from Emission Point: Start 0 End SAME

Stack Height: NONE  
 Wind Direction: NONE  
 Attached  Detached  None

Stack Color: NONE  
 Sky Condition: CLEAR/SMALL  
 Wind Direction: E  
 Wet Bulb Temp: 85 End 85



Form Number \_\_\_\_\_ Page 1 of 1  
 Continued on VED Form Number \_\_\_\_\_

Sec Mn	Time Zone EST				Start Time 1320	End Time 1350	Comments
	0	15	30	45			
1	0	0	0	0			
2	0	0	0	0			
3	0	0	0	0			
4	0	0	0	0			
5	0	0	0	0			
6	0	0	0	0			
6	0	0	0	0			
7	0	0	0	0			
8	0	0	0	0			
9	0	0	0	0			
10	0	0	0	0			
11	0	0	0	0			
12	0	0	0	0			
13	0	0	0	0			
14	0	0	0	0			
15	0	0	0	0			
16	0	0	0	0			
17	0	0	0	0			
18	0	0	0	0			
19	0	0	0	0			
20	0	0	0	0			
21	0	0	0	0			
22	0	0	0	0			
23	0	0	0	0			
24	0	0	0	0			
25	0	0	0	0			
26	0	0	0	0			
27	0	0	0	0			
28	0	0	0	0			
29	0	0	0	0			
30	0	0	0	0			

Observer's Name (Print): FRANCIS K. MORLEY  
 Observer's Signature: [Signature]  
 Organization: SFES  
 Date: 12/15/07  
 Certified By: [Signature]  
 South Florida Environmental Services

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VISIBLE EMISSION OBSERVATION FORM 1

Method (Select One) 203A 203B Other: \_\_\_\_\_

Company Name OKEELANTA  
 Facility Name SANIC AIR PAKS  
 Street Address 2125 US HIGHWAY 27  
 City SOUTH BAY State FL Zip 33473

Process DUST COLLECTION Unit 202 Operating Mode NORMAL  
 Control Equipment \_\_\_\_\_ Operating Mode \_\_\_\_\_

Location Emission Point TOP OF DUST COLLECTION  
STACK

Height of Emiss. Pt. at \_\_\_\_\_ End 100 Height of Emiss. Pt. Rel. to Observer Start \_\_\_\_\_ End \_\_\_\_\_  
 Direction to Emiss. Pt. at \_\_\_\_\_ End 120 Direction to Emiss. Pt. (Degrees) Start \_\_\_\_\_ End SO SO

Altitude Angle to Obs. Pt. at \_\_\_\_\_ End \_\_\_\_\_ Direction to Obs. Pt. (Degrees) Start \_\_\_\_\_ End SO SO  
 Emiss. Pt. Direction to Observation Point from Emission Point at \_\_\_\_\_ End SAME

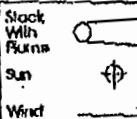
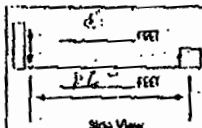
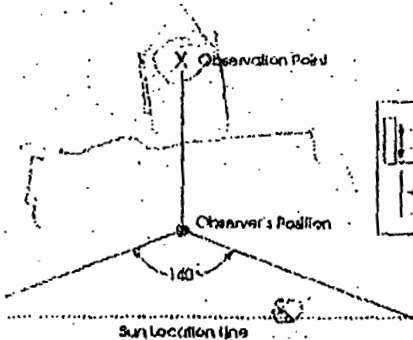
Water Droplet Size NONE End NONE  
 Water Droplet Name Attached  Detached  None

Background Color SMOKE End SAME Sky Condition Start \_\_\_\_\_ End SAME  
 Wind Direction at \_\_\_\_\_ End 10 Wind Direction Start \_\_\_\_\_ End \_\_\_\_\_  
 Wind Temp. at \_\_\_\_\_ End 85 Wind Temp. Start \_\_\_\_\_ End \_\_\_\_\_

Source Layout Sketch

Draw North Arrow

IN  MN



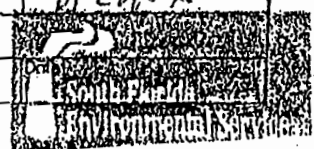
Latitude \_\_\_\_\_ Decidation \_\_\_\_\_

Information \_\_\_\_\_

Form Number \_\_\_\_\_ Page 1  
 Continued on VEO Form Number \_\_\_\_\_

Sec Min	Emiss. Zone				Start Time	End Time	Comments
	0	15	30	45			
1	0	0	0	0	1:51	1:59	
2	0	0	0	0			
3	0	0	0	0			
4	0	0	0	0			
5	0	0	0	0			
6	0	0	0	0			
7	0	0	0	0			
8	0	0	0	0			
9	0	0	0	0			
10	0	0	0	0			
11	0	0	0	0			
12	0	0	0	0			
13	0	0	0	0			
14	0	0	0	0			
15	0	0	0	0			
16	0	0	0	0			
17	0	0	0	0			
18	0	0	0	0			
19	0	0	0	0			
20	0	0	0	0			
21	0	0	0	0			
22	0	0	0	0			
23	0	0	0	0			
24	0	0	0	0			
25	0	0	0	0			
26	0	0	0	0			
27	0	0	0	0			
28	0	0	0	0			
29	0	0	0	0			
30	0	0	0	0			

Observer's Name (Print) FRANCIS K. MCELROY  
 Observer's Signature [Signature] Date 12/21/07  
 Organization SFOS  
 Certified By ETA - 7/20/07



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VISIBLE EMISSION OBSERVATION FORM 1

Method Used (Circle One)  
 Method 203A 203B Other

Company Name  
 OKEELANTA SUGAR  
 Facility Name  
 SAME AS ABOVE  
 Street Address  
 21250 U.S. HIGHWAY 27  
 City SOUTH BAY State FL Zip 33443

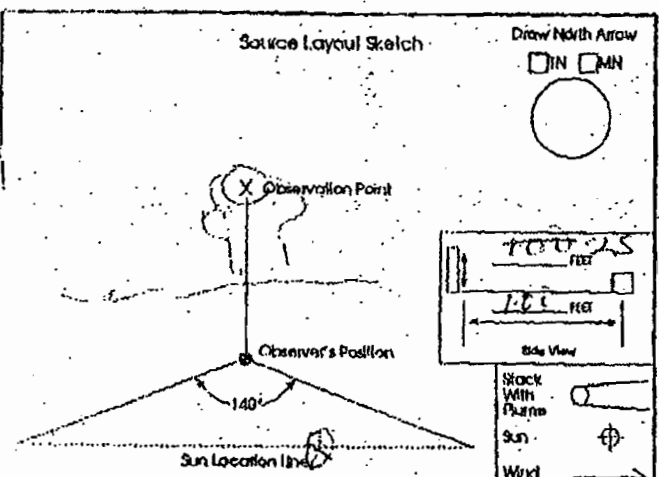
Process  
 DRYER COOLER Unit # 25 Operating Mode  
 Control Equipment Operating Mode

Describe Emission Point  
 STACK OF DRYER COOLER  
 Height of Emis. Pt.  
 Start 100 End 100  
 Height of Emis. Pt. Rel. to Observer  
 Start 25 End 25  
 Direction to Emis. Pt. (Degrees)  
 Start 30 End 30

Wind Angle to Obs. Pt.  
 Start 14 End 14  
 Direction to Obs. Pt. (Degrees)  
 Start 30 End 30  
 Distance and Direction to Observation Point from Emission Point  
 Start 100 End 30 Direction SAME

Describe Emissions  
 Start NONE  
 End NONE  
 Water Droplet Flame  
 Attached Detached None

Describe Plume Background  
 Start SKY  
 End SKY  
 Sky Color  
 Start GRAY End SHADY  
 Sky Condition  
 Start CLOUDY End SHADY  
 Wind Speed  
 Start 0-10 End 0-10  
 Wind Direction  
 Start E End E  
 Wet Bulb Temp.    
 Start 85 End 85



Latitude Longitude Destination

Additional Information

Form Number Page 1 of 1  
 Continued on VEO Form Number

Observation Date	Time Zone	Start Time	End Time	Comments		
9/21/07	EST	1320	1350			
Min	Sec	0	15	30	45	
1	0	0	0	0		
2	0	0	0	0		
3	0	0	0	0		
4	0	0	0	0		
5	0	0	0	0		
6	0	0	0	0		
7	0	0	0	0		
8	0	0	0	0		
9	0	0	0	0		
10	0	0	0	0		
11	0	0	0	0		
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22	0	0	0	0		
23	0	0	0	0		
24	0	0	0	0		
25	0	0	0	0		
26	0	0	0	0		
27	0	0	0	0		
28	0	0	0	0		
29	0	0	0	0		
30	0	0	0	0		

Observer's Name (Print)  
 FRANCIS K. MORLEY  
 Observer's Signature  
 Date 9/21/07  
 Organization SPES  
 Certified by EIA-7/10/07

**ATTACHMENT B**

**DETAILED DESCRIPTION OF CONTROL EQUIPMENT**

**TABLE B-1  
CONTROL EQUIPMENT PARAMETERS AND PARTICULATE REMOVAL EFFICIENCIES FOR  
SUGAR DUST WET COLLECTION SYSTEMS AT OKEELANTA SUGAR REFINERY**

Name	Rotary Dryer Wet Rotoclone No. 1	Conveying Wet Rotoclone No. 2	Cooler No. 1 Wet Rotoclone No. 3	Cooler No. 2 Wet Rotoclone No. 4
ID Designation	021	022	023	024
Manufacturer	American Air Filter (AAF)	American Air Filter (AAF)	American Air Filter (AAF)	American Air Filter (AAF)
Type/Design	Wet Rotoclone Type W, Size 27	Wet Rotoclone Type W, Size 27	Wet Rotoclone Type W, Size 27	Wet Rotoclone Type W, Size 27
Outlet Gas Temp (°F)	100	100	100	100
Outlet Gas Flow Rate (acfm)	15,000	15,000	15,000	15,000
Water Injection Rate (gal/min) (minimum) <sup>a</sup>	2.2	2.2	2 to 9	2 to 9
Pressure Drop Across Device (inches H <sub>2</sub> O) (min) <sup>a</sup>	6.8	6.8	2 to 9	2 to 9
Total PM Control Efficiency (%) <sup>b</sup>	99.9	99.9	99.9	99.9
Total PM <sub>10</sub> Control Efficiency (%) <sup>b</sup>	99.0	99.0	99.0	99.0

Sample calculations:

$$\text{Control efficiency (\%)} = [ (\text{inlet loading rate} - \text{outlet loading rate}) / \text{inlet loading rate} ] \times 100$$

Footnotes:

<sup>a</sup> Based on 2002 stack testing for Rotoclones No. 1 and 2, and manufacturer's data for Rotoclones No. 3 and 4.

<sup>b</sup> Control efficiency is manufacturer's efficiency rating.

**TABLE B-2  
CONTROL EQUIPMENT PARAMETERS AND PARTICULATE REMOVAL EFFICIENCY DERIVATION  
FOR FLUIDIZED BED DRYER/COOLER PULSE JET BAGHOUSE (EU 025)  
AT OKEELANTA SUGAR REFINERY**

<b>Manufacturer</b>	<b>BETH GmbH, 23556 Lobeck</b>		
<b>Type</b>	<b>BETHPULS 6.60 x 7.5.10</b>		
Outlet Gas Temp (°F)	115		
Outlet Gas Flow Rate (acfm)	70,620		
Exhaust Gas Moisture Content (%)	0.7		
Cleaning Method	Pulse Jet Compressed Air		
Compressed Air Consumption (cfm)	51.8		
Number of Bags	420		
Total Filter Media Surface Area (sq. ft)	9,041		
Air to Cloth Ratio (cfm per sq ft.)	7.81		
Outlet Loading (grains/dscf)	0.00348 <sup>a</sup>		
	Inlet <sup>b</sup> Loading (lb/hr)	Control <sup>c</sup> Efficiency (%)	Outlet Loading (lb/hr)
Particulate Matter	960	99.80	1.92

Note: All parameters are based on manufacturers design information.

Footnotes:

<sup>a</sup> Calculated based on expected outlet loading rate (lb/hr) and outlet gas flow rate (scfm) at operational conditions.

<sup>b</sup> Inlet loading to the filter specified by the fluidized bed dryer manufacturer while operating at Okeelanta's estimated maximum refined sugar production (includes a 20% design safety factor).

<sup>c</sup> Control efficiency based on baghouse manufacturers design information for dust content in raw gas (10g/m<sup>3</sup> at standard conditions) and for dust content in clean gas (20 mg/m<sup>3</sup> at standard conditions).

Sample calculations:

Outlet loading rate = inlet loading rate X [1-(control efficiency/100)].

**ATTACHMENT B-3****DETAILED DESCRIPTION OF CONTROL EQUIPMENT  
FOR COGENERATION BOILERS A, B, AND C**

The cogeneration facility utilizes several emission control techniques to reduce emissions. A selective non-catalytic reduction (SNCR) system is used to reduce NO<sub>x</sub> emissions. Further, the cogeneration boilers minimize CO and VOC through proper furnace design and good combustion practices, including control of combustion air and combustion temperature, distribution of fuel on the combustion grate, and control over the furnace loads and transient conditions. Particulate emissions are controlled by an electrostatic precipitator (ESP). Multiple cyclones were installed during the 2000 calendar year to improve control of particulate emissions. Mercury emissions are controlled through a carbon injection system and the ESP system.

**Electrostatic Precipitator**

The EPSs for the New Hope Power Partnership (NHPP) facility are manufactured by Flakt, Inc. Design specifications for the ESP (one per boiler) are provided below:

Chambers = 1

Collecting Plate = 12.30 ft L x 39.37 ft H

Fields/Chamber = 3

Specific Collection Area = 200 ft<sup>2</sup>/1,000 acfm (minimum)

Gas Velocity = <4 ft/s

Pressure Drop = less than 2.8 inches H<sub>2</sub>O

Operating Temperature = 350°F

Ash Handling = Trough hopper with screw conveyor

Particulate removal efficiency: >99.2%

**NO<sub>x</sub> Control System**

The NO<sub>x</sub> control system design employs a urea injection system manufactured by Nalco-Fueltech for NO<sub>x</sub> control. The technology is a SNCR process, which reduces NO<sub>x</sub> emissions through chemical reaction with urea. In the process, urea is injected into the flue gas stream and reacts with NO<sub>x</sub> to form nitrogen and water vapor.

The NO<sub>x</sub> control system includes the following major components:

- Carrier air compressors,
- Urea tank,
- Urea/air flow controls,
- Control panel,
- Injection manifolds and injectors, and
- Valves and instrumentation.

A single urea storage tank system is installed to supply urea to all three boilers. Urea for injection into the boilers is drawn from the tank. Two injection zones are used to provide injection at full and part load conditions. Each zone has six injectors. Zone switching valves will direct the urea/carrier mixture to the appropriate injection zone.

Specifications for the urea injection system to meet the NO<sub>x</sub> emission rate of 0.15 lb/MMBtu when firing biomass or No. 2 fuel oil are provided below (on a per boiler basis):

Urea injection rate - 65 gal/hr (max)

Ammonia Slip - Biomass, No. 2 fuel oil, natural gas - 25 ppm (max)

### **Mercury Control System**

The mercury control system is supplied by ABB Environmental Systems and Chemco, Inc. A volumetric feeder with integral supply hopper meters activated carbon for injection at a point in the ductwork between the ESP and the ID fan. This promotes turbulent mixing and provides adequate residence time. A blower system transports the carbon to the injection point. The ESP will effectively capture the activated carbon particles along with the boiler fly ash (which also contains some carbon). The system is designed to inject up to 13 lb/hr of carbon into the flue gases of each boiler.

### **Dust Control System**

The cyclone dust collectors are supplied by Barron Industries, Model 460 Tube Base III 9K15-2023 AU. These are mechanical cyclone dust collectors which remove larger size particulate matter prior to the ESP. There are 460 cyclone tubes in all.



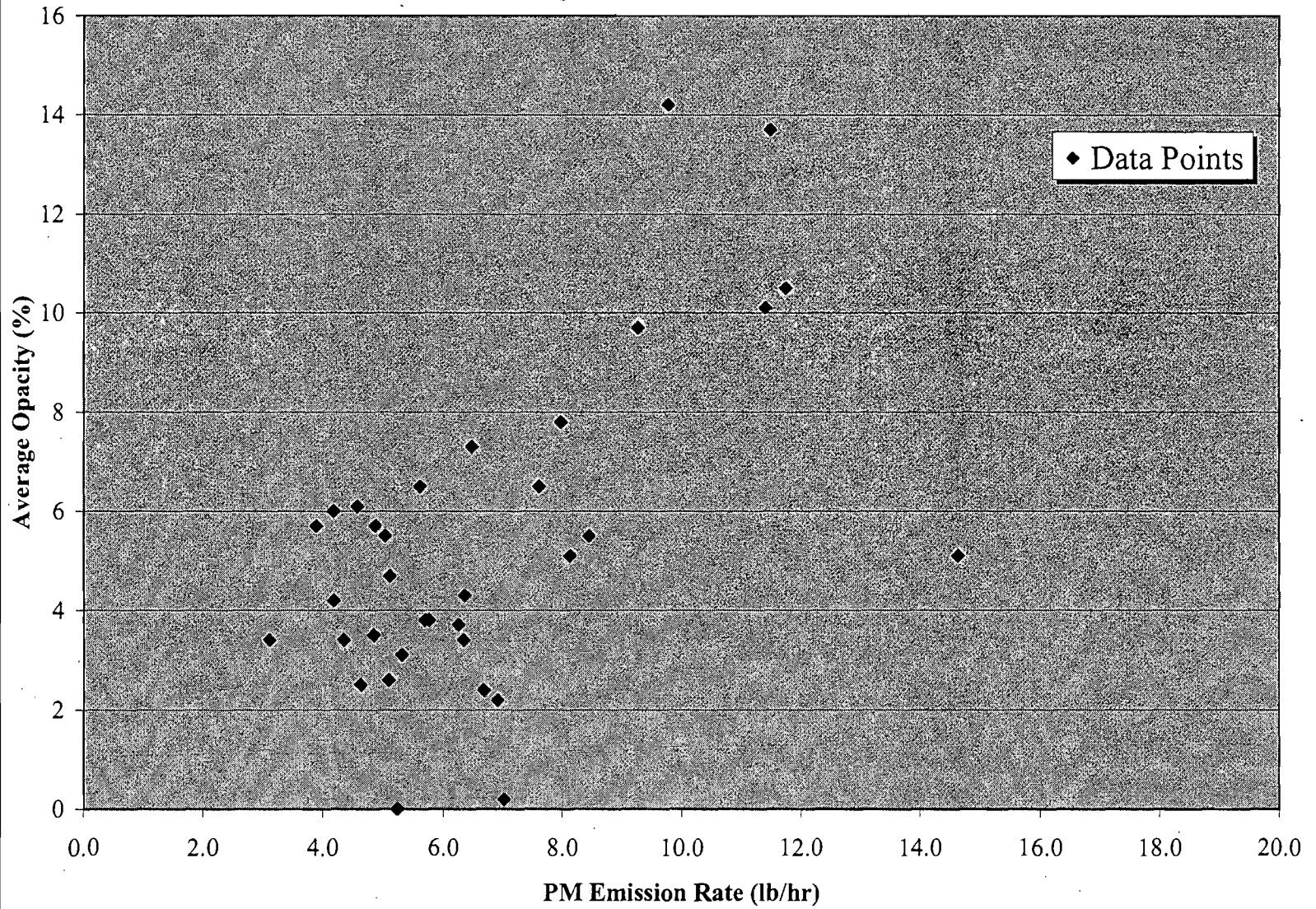
**ATTACHMENT C**

**OPACITY DATA**

Table C-1. NHPP Cogeneration Facility Stack Opacity Test Data Summary

Boiler	Run	Period Start	Period End	Average Opacity	Average PM Emissions	
				(%)	lb/MMBtu	lb/hr
A	Run 1	2/24/2005 1:31:00 PM	2/24/2005 2:38:00 PM	9.7	0.0138	9.27
	Run 2	2/24/2005 3:08:00 PM	2/24/2005 4:11:00 PM	10.1	0.0177	11.40
	Run 3	2/24/2005 4:47:00 PM	2/24/2005 5:45:00 PM	10.5	0.0172	11.75
	Run 1	2/16/2004 9:15:00 AM	2/16/2004 10:21:00 AM	3.4	0.0052	3.11
	Run 2	2/16/2004 11:01:00 AM	2/16/2004 12:05:00 PM	2.6	0.0080	5.10
	Run 3	2/16/2004 12:47:00 PM	2/16/2004 1:49:00 PM	2.5	0.0072	4.63
	Run 1	1/22/2003 9:43:00 AM	1/22/2003 11:42:00 AM	3.4	0.0085	6.34
	Run 2	1/22/2003 12:17:00 PM	1/22/2003 1:20:00 PM	2.4	0.0090	6.68
	Run 3	1/22/2003 2:03:00 PM	1/22/2003 3:06:00 PM	2.2	0.0093	6.91
	Run 1	2/13/2002 10:16:00 AM	2/13/2002 11:19:00 AM	5.5	0.0110	8.45
	Run 2	2/13/2002 12:09:00 PM	2/13/2002 1:13:00 PM	4.7	0.0070	5.11
	Run 3	2/13/2002 1:44:00 PM	2/13/2002 2:48:00 PM	4.2	0.0050	4.18
	B	Run 1	2/23/2005 1:55:00 PM	2/23/2005 3:01:00 PM	14.2	0.0143
Run 2		2/23/2005 3:46:00 PM	2/23/2005 4:49:00 PM	13.7	0.0174	11.49
Run 3		2/24/2005 9:23:00 AM	2/24/2005 10:27:00 AM	7.8	0.0117	7.98
Run 1		2/13/2004 8:52:00 AM	2/13/2004 9:54:00 AM	7.3	0.0101	6.48
Run 2		2/13/2004 12:40:00 PM	2/13/2004 1:44:00 PM	5.5	0.0077	5.03
Run 3		2/13/2004 2:27:00 PM	2/13/2004 3:32:00 PM	6.5	0.0115	7.62
Run 1		1/23/2003 10:58:00 AM	1/23/2003 12:01:00 PM	3.7	0.0088	6.26
Run 2		1/23/2003 12:31:00 PM	1/23/2003 1:34:00 PM	3.8	0.0082	5.76
Run 3		1/23/2003 2:01:00 PM	1/23/2003 3:04:00 PM	3.5	0.0067	4.84
Run 1		2/14/2002 9:35:00 AM	2/14/2002 10:39:00 AM	5.1	0.0110	8.12
Run 2		2/14/2002 11:10:00 AM	2/14/2002 12:15:00 PM	4.3	0.0090	6.36
Run 3		2/14/2002 12:49:00 PM	2/14/2002 1:54:00 PM	3.8	0.0080	5.70
C		Run 1	2/22/2005 2:15:00 PM	2/22/2005 3:19:00 PM	6.5	0.0132
	Run 3	2/23/2005 8:53:00 AM	2/23/2005 9:56:00 AM	6	0.0060	4.18
	Run 1	2/11/2004 9:50:00 AM	2/11/2004 10:54:00 AM	6.1	0.0072	4.57
	Run 2	2/11/2004 11:36:00 AM	2/11/2004 12:42:00 PM	5.7	0.0080	4.87
	Run 3	2/11/2004 1:20:00 PM	2/11/2004 2:25:00 PM	5.7	0.0062	3.90
	Run 1	1/21/2003 12:16:00 PM	1/21/2003 1:21:00 PM	0	0.0074	5.23
	Run 2	1/21/2003 2:07:00 PM	1/21/2003 3:10:00 PM	0	0.0072	5.24
	Run 3	1/21/2003 4:13:00 PM	1/21/2003 5:24:00 PM	0.2	0.0096	7.01
	Run 1	2/12/2002 10:14:00 AM	2/12/2002 11:19:00 AM	5.1	0.0190	14.63
	Run 2	2/12/2002 12:35:00 PM	2/12/2002 1:39:00 PM	3.1	0.0070	5.31
	Run 3	2/12/2002 2:11:00 PM	2/12/2002 3:15:00 PM	3.4	0.0060	4.35

Opacity vs. PM Emission Rate



**2005**

GE Energy Services NetDAHS©  
Average Values Report  
Generated: 04/11/05 09:38

Company: Okeelanta CoGen	Period Start: 02/24/2005 08:53
Plant:	Period End: 02/24/2005 09:56
City/St: South Bay, FL	Validation Type: 1/1 min
Source: Stack 1	Averaging Period: 1 min
	Type: Block Avg

Period Start	Average Opacity_1 %	Period Start	Average Opacity_1 %
2/24/2005 13:31	7	2/24/2005 14:13	9.8
2/24/2005 13:32	6.8	2/24/2005 14:14	9.8
2/24/2005 13:33	6.7	2/24/2005 14:15	13.4
2/24/2005 13:34	6.8	2/24/2005 14:16	10.2
2/24/2005 13:35	7	2/24/2005 14:17	12.6
2/24/2005 13:36	7.3	2/24/2005 14:18	9.7
2/24/2005 13:37	12.9	2/24/2005 14:19	10
2/24/2005 13:38	9.6	2/24/2005 14:20	8.6
2/24/2005 13:39	7.2	2/24/2005 14:21	9.7
2/24/2005 13:40	7.1	2/24/2005 14:22	9.4
2/24/2005 13:41	7.8	2/24/2005 14:23	16.7
2/24/2005 13:42	7.7	2/24/2005 14:24	13.8
2/24/2005 13:43	6.8	2/24/2005 14:25	20.3
2/24/2005 13:44	7.1	2/24/2005 14:26	10.3
2/24/2005 13:45	7.2	2/24/2005 14:27	9.9
2/24/2005 13:46	7.3	2/24/2005 14:28	9.2
2/24/2005 13:47	6.8	2/24/2005 14:29	10.3
2/24/2005 13:48	6.9	2/24/2005 14:30	15.3
2/24/2005 13:49	6.5	2/24/2005 14:31	11.3
2/24/2005 13:50	7.4	2/24/2005 14:32	9.2
2/24/2005 13:51	8.6	2/24/2005 14:33	9.3
2/24/2005 13:52	9.9	2/24/2005 14:34	8.9
2/24/2005 13:53	7.4	2/24/2005 14:35	8.0
2/24/2005 13:54	6.8	2/24/2005 14:36	11.6
2/24/2005 13:55	6.8	2/24/2005 14:37	8.1
2/24/2005 13:56	8.3	2/24/2005 14:38	21.1
2/24/2005 13:57	7.3	<b>Final Average*</b>	9.7
2/24/2005 13:58	8.2	<b>Maximum*</b>	23.40
2/24/2005 13:59	8	<b>Minimum*</b>	6.50
2/24/2005 14:00	8		
2/24/2005 14:01	23.4		
2/24/2005 14:02	10.3		
2/24/2005 14:03	9.3		
2/24/2005 14:04	8.3		
2/24/2005 14:05	7.8		
2/24/2005 14:06	9.9		
2/24/2005 14:07	8.4		
2/24/2005 14:08	15.2		
2/24/2005 14:09	10.7		
2/24/2005 14:10	12.1		
2/24/2005 14:11	8.7		
2/24/2005 14:12	9.3		

\*Does not include Invalid Averaging Periods ("N/A")

GE Energy Services NetDAHS©  
Average Values Report  
Generated: 04/11/05 09:40

Company:	Okeelanta CoGen	Period Start:	02/24/2005	15:08
Plant:		Period End:	02/24/2005	16:11
City/St:	South Bay, FL	Validation Type:	1/1 min	
Source:	Stack 1	Averaging Period:	1 min	
		Type:	Block Avg	

<u>Period Start</u>	<u>Average Opacity_1</u>	<u>%</u>	<u>Period Start</u>	<u>Average Opacity_1</u>	<u>%</u>
2/24/2005	15:08	6.8	2/24/2005	15:50	9.6
2/24/2005	15:09	7.1	2/24/2005	15:51	13
2/24/2005	15:10	8.2	2/24/2005	15:52	10.5
2/24/2005	15:11	8.7	2/24/2005	15:53	9.7
2/24/2005	15:12	8.4	2/24/2005	15:54	10.3
2/24/2005	15:13	7	2/24/2005	15:55	9.5
2/24/2005	15:14	7.1	2/24/2005	15:56	11.5
2/24/2005	15:15	7.2	2/24/2005	15:57	9.9
2/24/2005	15:16	7.4	2/24/2005	15:58	9.5
2/24/2005	15:17	7.5	2/24/2005	15:59	11.1
2/24/2005	15:18	7.2	2/24/2005	16:00	10.6
2/24/2005	15:19	8.2	2/24/2005	16:01	8.9
2/24/2005	15:20	8.3	2/24/2005	16:02	9.6
2/24/2005	15:21	7.5	2/24/2005	16:03	11.4
2/24/2005	15:22	7.3	2/24/2005	16:04	9.7
2/24/2005	15:23	10.3	2/24/2005	16:05	8.8
2/24/2005	15:24	10.2	2/24/2005	16:06	9.8
2/24/2005	15:25	9	2/24/2005	16:07	9.7
2/24/2005	15:26	8.8	2/24/2005	16:08	10.8
2/24/2005	15:27	8.1	2/24/2005	16:09	9.1
2/24/2005	15:28	10.7	2/24/2005	16:10	9
2/24/2005	15:29	9.3	2/24/2005	16:11	10
2/24/2005	15:30	9.1	<b>Final Average*</b>		10.1
2/24/2005	15:31	9.9	<b>Maximum*</b>		38.0
2/24/2005	15:32	9.3	<b>Minimum*</b>		6.8
2/24/2005	15:33	8.5			
2/24/2005	15:34	8.1			
2/24/2005	15:35	8.7			
2/24/2005	15:36	11.1			
2/24/2005	15:37	9.4			
2/24/2005	15:38	38			
2/24/2005	15:39	11.3			
2/24/2005	15:40	10.2			
2/24/2005	15:41	13.3			
2/24/2005	15:42	14.3			
2/24/2005	15:43	14.3			
2/24/2005	15:44	11.3			
2/24/2005	15:45	11.5			
2/24/2005	15:46	11.2			
2/24/2005	15:47	9.3			
2/24/2005	15:48	9.8			
2/24/2005	15:49	13.7			

\*Does not include Invalid Averaging Periods ("N/A")

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Average Values Report  
Generated: 04/11/05 09:41

Company: Okeelanta CoGen	Period Start: 02/24/2005 16:47
Plant:	Period End: 02/24/2005 17:45
City/St: South Bay, FL	Validation Type: 1/1 min
Source: Stack 1	Averaging Period: 1 min
	Type: Block Avg

<b>Period Start</b>	<b>Average Opacity_1 %</b>	<b>Period Start</b>	<b>Average Opacity_1 %</b>
2/24/2005 16:47	7.5	2/24/2005 17:29	13.1
2/24/2005 16:48	8.4	2/24/2005 17:30	14.3
2/24/2005 16:49	8.3	2/24/2005 17:31	12.1
2/24/2005 16:50	8.1	2/24/2005 17:32	12.8
2/24/2005 16:51	11.6	2/24/2005 17:33	11.9
2/24/2005 16:52	10.7	2/24/2005 17:34	11.3
2/24/2005 16:53	8.1	2/24/2005 17:35	11
2/24/2005 16:54	7.3	2/24/2005 17:36	13.9
2/24/2005 16:55	8.3	2/24/2005 17:37	12.5
2/24/2005 16:56	8.6	2/24/2005 17:38	12.8
2/24/2005 16:57	9	2/24/2005 17:39	13.2
2/24/2005 16:58	9	2/24/2005 17:40	12.1
2/24/2005 16:59	8.9	2/24/2005 17:41	12.1
2/24/2005 17:00	11.7	2/24/2005 17:42	12
2/24/2005 17:01	9.1	2/24/2005 17:43	12.2
2/24/2005 17:02	8.8	2/24/2005 17:44	17.9
2/24/2005 17:03	8.1	2/24/2005 17:45	12.3
2/24/2005 17:04	8.7	<b>Final Average*</b>	10.5
2/24/2005 17:05	7.6	<b>Maximum*</b>	17.9
2/24/2005 17:06	8.5	<b>Minimum*</b>	7.3
2/24/2005 17:07	7.9		
2/24/2005 17:08	7.5		
2/24/2005 17:09	7.6		
2/24/2005 17:10	8.2		
2/24/2005 17:11	7.8		
2/24/2005 17:12	9.3		
2/24/2005 17:13	9.5		
2/24/2005 17:14	10		
2/24/2005 17:15	12.2		
2/24/2005 17:16	10.7		
2/24/2005 17:17	10.8		
2/24/2005 17:18	9.8		
2/24/2005 17:19	10.1		
2/24/2005 17:20	9.7		
2/24/2005 17:21	11		
2/24/2005 17:22	11.2		
2/24/2005 17:23	11.1		
2/24/2005 17:24	12.8		
2/24/2005 17:25	13.9		
2/24/2005 17:26	12.2		
2/24/2005 17:27	12		
2/24/2005 17:28	12.3		

\*Does not include Invalid Averaging Periods ("N/A")

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Average Values Report  
Generated: 04/08/05 08:25

Company: Okeelanta CoGen	Period Start: 02/23/2005 13:55
Plant:	Period End: 02/23/2005 15:01
City/St: South Bay, FL	Validation Type: 1/1 min
Source: Stack 2	Averaging Period: 1 min
	Type: Block Avg

<b>Period Start</b>	<b>Average Opacity_1 %</b>	<b>Period Start</b>	<b>Average Opacity_1 %</b>
2/23/2005 13:55	8.1	2/23/2005 14:37	22.1
2/23/2005 13:56	7.9	2/23/2005 14:38	32.2
2/23/2005 13:57	7.4	2/23/2005 14:39	23.2
2/23/2005 13:58	7.5	2/23/2005 14:40	12.7
2/23/2005 13:59	7.8	2/23/2005 14:41	15.1
2/23/2005 14:00	11.6	2/23/2005 14:42	12.2
2/23/2005 14:01	13.4	2/23/2005 14:43	10.6
2/23/2005 14:02	13.9	2/23/2005 14:44	11.7
2/23/2005 14:03	10	2/23/2005 14:45	9.5
2/23/2005 14:04	11.5	2/23/2005 14:46	9.9
2/23/2005 14:05	11.6	2/23/2005 14:47	13.2
2/23/2005 14:06	10.7	2/23/2005 14:48	11.3
2/23/2005 14:07	14.9	2/23/2005 14:49	10.2
2/23/2005 14:08	11.7	2/23/2005 14:50	9.8
2/23/2005 14:09	11.8	2/23/2005 14:51	14.6
2/23/2005 14:10	14.7	2/23/2005 14:52	9.9
2/23/2005 14:11	15	2/23/2005 14:53	10.5
2/23/2005 14:12	11.3	2/23/2005 14:54	10.3
2/23/2005 14:13	13.4	2/23/2005 14:55	9.1
2/23/2005 14:14	11.7	2/23/2005 14:56	8.2
2/23/2005 14:15	12.3	2/23/2005 14:57	7.5
2/23/2005 14:16	17.9	2/23/2005 14:58	8.5
2/23/2005 14:17	17.9	2/23/2005 14:59	10.0
2/23/2005 14:18	12.2	2/23/2005 15:00	10.9
2/23/2005 14:19	16.9	2/23/2005 15:01	8.7
2/23/2005 14:20	13.9	<b>Final Average*</b>	14.2
2/23/2005 14:21	13	<b>Maximum*</b>	32.20
2/23/2005 14:22	16.4	<b>Minimum*</b>	7.40
2/23/2005 14:23	17.3		
2/23/2005 14:24	13.7		
2/23/2005 14:25	14.8		
2/23/2005 14:26	22.9		
2/23/2005 14:27	21.9		
2/23/2005 14:28	23.4		
2/23/2005 14:29	23.9		
2/23/2005 14:30	18.2		
2/23/2005 14:31	24.2		
2/23/2005 14:32	28.9		
2/23/2005 14:33	19.7		
2/23/2005 14:34	19.4		
2/23/2005 14:35	27.2		
2/23/2005 14:36	19.6		

\*Does not include Invalid Averaging Periods ("N/A")



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Average Values Report  
Generated: 04/08/05 08:28

Company: Okeelanta CoGen	Period Start: 02/23/2005 15:46
Plant:	Period End: 02/23/2005 16:49
City/St: South Bay, FL	Validation Type: 1/1 min
Source: Stack 2	Averaging Period: 1 min
	Type: Block Avg

Period Start	Average Opacity_1 %
2/23/2005 15:46	10.1
2/23/2005 15:47	8.6
2/23/2005 15:48	8.4
2/23/2005 15:49	9.6
2/23/2005 15:50	13.9
2/23/2005 15:51	16.1
2/23/2005 15:52	11.3
2/23/2005 15:53	8.3
2/23/2005 15:54	8.7
2/23/2005 15:55	10.6
2/23/2005 15:56	11.9
2/23/2005 15:57	9.4
2/23/2005 15:58	9.4
2/23/2005 15:59	12
2/23/2005 16:00	11.3
2/23/2005 16:01	10.7
2/23/2005 16:02	14
2/23/2005 16:03	10.5
2/23/2005 16:04	11.4
2/23/2005 16:05	11.6
2/23/2005 16:06	11
2/23/2005 16:07	15.4
2/23/2005 16:08	27.3
2/23/2005 16:09	12.1
2/23/2005 16:10	12.2
2/23/2005 16:11	21.5
2/23/2005 16:12	18.8
2/23/2005 16:13	13.8
2/23/2005 16:14	11.8
2/23/2005 16:15	12.9
2/23/2005 16:16	12.1
2/23/2005 16:17	11.8
2/23/2005 16:18	13.5
2/23/2005 16:19	15.2
2/23/2005 16:20	15.9
2/23/2005 16:21	13.5
2/23/2005 16:22	11.2
2/23/2005 16:23	11.1
2/23/2005 16:24	17.2
2/23/2005 16:25	14.2
2/23/2005 16:26	11.9
2/23/2005 16:27	18.3

Period Start	Average Opacity_1 %
2/23/2005 16:28	16.3
2/23/2005 16:29	11.8
2/23/2005 16:30	11.5
2/23/2005 16:31	13.5
2/23/2005 16:32	16.6
2/23/2005 16:33	11.9
2/23/2005 16:34	12.4
2/23/2005 16:35	10.8
2/23/2005 16:36	12
2/23/2005 16:37	19.9
2/23/2005 16:38	19.4
2/23/2005 16:39	15.1
2/23/2005 16:40	13.4
2/23/2005 16:41	10.7
2/23/2005 16:42	14.1
2/23/2005 16:43	14.7
2/23/2005 16:44	13.5
2/23/2005 16:45	18.9
2/23/2005 16:46	17.6
2/23/2005 16:47	23.3
2/23/2005 16:48	17.8
2/23/2005 16:49	19
<b>Final Average*</b>	13.7
<b>Maximum*</b>	27.30
<b>Minimum*</b>	8.30

\*Does not include Invalid Averaging Periods ("N/A")

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Average Values Report  
Generated: 04/08/05 09:05

Company: Okeelanta CoGen  
Plant:  
City/St: South Bay, FL  
Source: Stack 2

Period Start: 02/24/2005 09:23  
Period End: 02/24/2005 10:27  
Validation Type: 1/1 min  
Averaging Period: 1 min  
Type: Block Avg

Period Start		Average Opacity_1 %
2/24/2005	9:23	7.4
2/24/2005	9:24	10.5
2/24/2005	9:25	8.2
2/24/2005	9:26	7.8
2/24/2005	9:27	7.3
2/24/2005	9:28	7.6
2/24/2005	9:29	8.1
2/24/2005	9:30	7.8
2/24/2005	9:31	7.5
2/24/2005	9:32	7.3
2/24/2005	9:33	6.9
2/24/2005	9:34	6.8
2/24/2005	9:35	7
2/24/2005	9:36	7
2/24/2005	9:37	6.9
2/24/2005	9:38	6.6
2/24/2005	9:39	6.5
2/24/2005	9:40	6.7
2/24/2005	9:41	6.6
2/24/2005	9:42	6.9
2/24/2005	9:43	6.9
2/24/2005	9:44	6.8
2/24/2005	9:45	6.8
2/24/2005	9:46	9
2/24/2005	9:47	7.3
2/24/2005	9:48	7.1
2/24/2005	9:49	7.3
2/24/2005	9:50	7.1
2/24/2005	9:51	7.5
2/24/2005	9:52	7.6
2/24/2005	9:53	7.8
2/24/2005	9:54	7
2/24/2005	9:55	8
2/24/2005	9:56	6.9
2/24/2005	9:57	8.2
2/24/2005	9:58	7.4
2/24/2005	9:59	7.1
2/24/2005	10:00	6.9
2/24/2005	10:01	7.1
2/24/2005	10:02	7.5
2/24/2005	10:03	8.2
2/24/2005	10:04	7.9

Period Start		Average Opacity_1 %
2/24/2005	10:05	7.9
2/24/2005	10:06	7.4
2/24/2005	10:07	7.3
2/24/2005	10:08	7.1
2/24/2005	10:09	7.1
2/24/2005	10:10	7.4
2/24/2005	10:11	7.2
2/24/2005	10:12	7.6
2/24/2005	10:13	7.3
2/24/2005	10:14	7.7
2/24/2005	10:15	7.1
2/24/2005	10:16	7.2
2/24/2005	10:17	7.2
2/24/2005	10:18	8.3
2/24/2005	10:19	7.2
2/24/2005	10:20	6.9
2/24/2005	10:21	7.1
2/24/2005	10:22	7.1
2/24/2005	10:23	7.5
2/24/2005	10:24	7.3
2/24/2005	10:25	8.2
2/24/2005	10:26	22.2
2/24/2005	10:27	18.4

**Final Average\*** 7.8  
**Maximum\*** 22.20  
**Minimum\*** 6.50

\*Does not include Invalid Averaging Periods ("N/A")

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Average Values Report  
Generated: 04/07/05 13:38

Company: Okeelanta CoGen	Period Start: 02/22/2005 14:15
Plant:	Period End: 02/22/2005 15:19
City/St: South Bay, FL	Validation Type: 1/1 min
Source: Stack 3	Averaging Period: 1 min
	Type: Block Avg

Period Start	Average Opacity_1 %	Period Start	Average Opacity_1 %
2/22/2005 14:15	5.5	2/22/2005 14:57	5.4
2/22/2005 14:16	5.8	2/22/2005 14:58	5.4
2/22/2005 14:17	5.5	2/22/2005 14:59	5.3
2/22/2005 14:18	5.7	2/22/2005 15:00	5.3
2/22/2005 14:19	7.9	2/22/2005 15:01	5.3
2/22/2005 14:20	15	2/22/2005 15:02	6.2
2/22/2005 14:21	9.1	2/22/2005 15:03	44.9
2/22/2005 14:22	5.8	2/22/2005 15:04	9.2
2/22/2005 14:23	5.5	2/22/2005 15:05	5.4
2/22/2005 14:24	7.5	2/22/2005 15:06	5.4
2/22/2005 14:25	6.1	2/22/2005 15:07	5.4
2/22/2005 14:26	5.6	2/22/2005 15:08	5.5
2/22/2005 14:27	5.6	2/22/2005 15:09	5.3
2/22/2005 14:28	5.8	2/22/2005 15:10	5.3
2/22/2005 14:29	6.4	2/22/2005 15:11	5.3
2/22/2005 14:30	5.7	2/22/2005 15:12	5.3
2/22/2005 14:31	5.6	2/22/2005 15:13	5.2
2/22/2005 14:32	6.5	2/22/2005 15:14	5.3
2/22/2005 14:33	5.9	2/22/2005 15:15	5.2
2/22/2005 14:34	5.8	2/22/2005 15:16	5.4
2/22/2005 14:35	5.6	2/22/2005 15:17	5.5
2/22/2005 14:36	5.6	2/22/2005 15:18	5.5
2/22/2005 14:37	5.5	2/22/2005 15:19	5.4
2/22/2005 14:38	5.5	<b>Final Average*</b>	6.5
2/22/2005 14:39	5.5	<b>Maximum*</b>	44.9
2/22/2005 14:40	5.5	<b>Minimum*</b>	5.2
2/22/2005 14:41	5.3		
2/22/2005 14:42	5.8		
2/22/2005 14:43	7		
2/22/2005 14:44	5.5		
2/22/2005 14:45	5.8		
2/22/2005 14:46	6.1		
2/22/2005 14:47	5.7		
2/22/2005 14:48	5.5		
2/22/2005 14:49	5.7		
2/22/2005 14:50	6.3		
2/22/2005 14:51	5.5		
2/22/2005 14:52	5.5		
2/22/2005 14:53	5.5		
2/22/2005 14:54	5.7		
2/22/2005 14:55	5.5		
2/22/2005 14:56	5.4		

\*Does not include Invalid Averaging Periods ("N/A")

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Average Values Report  
Generated: 04/08/05 09:05

Company: Okeelanta CoGen  
Plant:  
City/St: South Bay, FL  
Source: Stack 3

Period Start: 02/23/2005 08:53  
Period End: 02/23/2005 09:56  
Validation Type: 1/1 min  
Averaging Period: 1 min  
Type: Block Avg

Period Start	Average Opacity_1 %
2/23/2005 8:53	6
2/23/2005 8:54	5.9
2/23/2005 8:55	5.8
2/23/2005 8:56	5.9
2/23/2005 8:57	5.9
2/23/2005 8:58	5.7
2/23/2005 8:59	5.8
2/23/2005 9:00	5.8
2/23/2005 9:01	5.9
2/23/2005 9:02	5.8
2/23/2005 9:03	5.8
2/23/2005 9:04	5.9
2/23/2005 9:05	6
2/23/2005 9:06	5.8
2/23/2005 9:07	6
2/23/2005 9:08	5.9
2/23/2005 9:09	6.2
2/23/2005 9:10	5.8
2/23/2005 9:11	5.9
2/23/2005 9:12	5.9
2/23/2005 9:13	6
2/23/2005 9:14	6
2/23/2005 9:15	5.8
2/23/2005 9:16	5.9
2/23/2005 9:17	5.9
2/23/2005 9:18	5.9
2/23/2005 9:19	6
2/23/2005 9:20	6.3
2/23/2005 9:21	5.9
2/23/2005 9:22	6.1
2/23/2005 9:23	6
2/23/2005 9:24	6
2/23/2005 9:25	6
2/23/2005 9:26	6
2/23/2005 9:27	6
2/23/2005 9:28	6.3
2/23/2005 9:29	6.1
2/23/2005 9:30	6
2/23/2005 9:31	6.1
2/23/2005 9:32	6.4
2/23/2005 9:33	6.1
2/23/2005 9:34	6

Period Start	Average Opacity_1 %
2/23/2005 9:35	6.1
2/23/2005 9:36	6
2/23/2005 9:37	6.3
2/23/2005 9:38	6
2/23/2005 9:39	6.1
2/23/2005 9:40	6
2/23/2005 9:41	6.1
2/23/2005 9:42	6.1
2/23/2005 9:43	6.4
2/23/2005 9:44	6.4
2/23/2005 9:45	6.4
2/23/2005 9:46	6.4
2/23/2005 9:47	6.3
2/23/2005 9:48	6.2
2/23/2005 9:49	6.5
2/23/2005 9:50	6.3
2/23/2005 9:51	6.1
2/23/2005 9:52	6.1
2/23/2005 9:53	6
2/23/2005 9:54	6
2/23/2005 9:55	5.9
2/23/2005 9:56	6.1
<b>Final Average*</b>	6.0
<b>Maximum*</b>	6.5
<b>Minimum*</b>	5.7

\*Does not include Invalid Averaging Periods ("N/A")

2004

GE Energy Services NetDAHS©  
Average Values Report  
Generated: 03/31/05 15:22

Company: Okeelanta CoGen	Period Start: 02/16/2004	09:15
Plant:	Period End: 02/16/2004	10:21
City/St: South Bay, FL	Validation Type: 1/1 min	
Source: Stack 1	Averaging Period: 1 min	
	Type: Block Avg	

<u>Period Start</u>	<u>Average Opacity_1</u>	<u>%</u>	<u>Period Start</u>	<u>Average Opacity_1</u>	<u>%</u>
2/16/2004	9:15	2.4	2/16/2004	9:57	2.7
2/16/2004	9:16	2.4	2/16/2004	9:58	3
2/16/2004	9:17	2.5	2/16/2004	9:59	3.3
2/16/2004	9:18	2.3	2/16/2004	10:00	3.2
2/16/2004	9:19	2.4	2/16/2004	10:01	2.8
2/16/2004	9:20	2.3	2/16/2004	10:02	2.7
2/16/2004	9:21	2.4	2/16/2004	10:03	2.7
2/16/2004	9:22	2.3	2/16/2004	10:04	2.9
2/16/2004	9:23	2.4	2/16/2004	10:05	2.8
2/16/2004	9:24	2.4	2/16/2004	10:06	2.8
2/16/2004	9:25	2.7	2/16/2004	10:07	2.9
2/16/2004	9:26	2.7	2/16/2004	10:08	3.2
2/16/2004	9:27	2.4	2/16/2004	10:09	3.3
2/16/2004	9:28	2.5	2/16/2004	10:10	2.8
2/16/2004	9:29	2.5	2/16/2004	10:11	2.7
2/16/2004	9:30	2.5	2/16/2004	10:12	2.8
2/16/2004	9:31	2.5	2/16/2004	10:13	4.7
2/16/2004	9:32	2.5	2/16/2004	10:14	5
2/16/2004	9:33	2.5	2/16/2004	10:15	3.7
2/16/2004	9:34	2.6	2/16/2004	10:16	34.1
2/16/2004	9:35	2.5	2/16/2004	10:17	5.1
2/16/2004	9:36	2.5	2/16/2004	10:18	6.6
2/16/2004	9:37	2.5	2/16/2004	10:19	4
2/16/2004	9:38	2.5	2/16/2004	10:20	3.6
2/16/2004	9:39	2.5	2/16/2004	10:21	3.3
2/16/2004	9:40	2.5	<b>Final Average*</b>		3.4
2/16/2004	9:41	2.5	<b>Maximum*</b>		34.1
2/16/2004	9:42	2.6	<b>Minimum*</b>		2.3
2/16/2004	9:43	2.6			
2/16/2004	9:44	2.7			
2/16/2004	9:45	2.7			
2/16/2004	9:46	2.6			
2/16/2004	9:47	3.1			
2/16/2004	9:48	2.7			
2/16/2004	9:49	2.8			
2/16/2004	9:50	2.6			
2/16/2004	9:51	2.7			
2/16/2004	9:52	2.8			
2/16/2004	9:53	3.2			
2/16/2004	9:54	2.9			
2/16/2004	9:55	2.8			
2/16/2004	9:56	2.8			

\*Does not include Invalid Averaging Periods ("N/A")

GE Energy Services NetDAHS©  
Average Values Report  
Generated: 03/31/05 15:34

Company: Okeelanta CoGen	Period Start: 02/16/2004 11:01
Plant:	Period End: 02/16/2004 12:05
City/St: South Bay, FL	Validation Type: 1/1 min
Source: Stack 1	Averaging Period: 1 min
	Type: Block Avg

Period Start	Average Opacity_1 %	Period Start	Average Opacity_1 %
2/16/2004 11:01	2.3	2/16/2004 11:43	2.7
2/16/2004 11:02	2.4	2/16/2004 11:44	2.5
2/16/2004 11:03	2.5	2/16/2004 11:45	3.1
2/16/2004 11:04	2.4	2/16/2004 11:46	2.5
2/16/2004 11:05	2.3	2/16/2004 11:47	2.6
2/16/2004 11:06	2.4	2/16/2004 11:48	2.9
2/16/2004 11:07	2.3	2/16/2004 11:49	2.9
2/16/2004 11:08	2.3	2/16/2004 11:50	2.7
2/16/2004 11:09	2.4	2/16/2004 11:51	2.8
2/16/2004 11:10	2.3	2/16/2004 11:52	2.6
2/16/2004 11:11	2.5	2/16/2004 11:53	3.4
2/16/2004 11:12	2.5	2/16/2004 11:54	3.2
2/16/2004 11:13	3	2/16/2004 11:55	3
2/16/2004 11:14	2.9	2/16/2004 11:56	3
2/16/2004 11:15	2.3	2/16/2004 11:57	3
2/16/2004 11:16	2.4	2/16/2004 11:58	3.9
2/16/2004 11:17	2.4	2/16/2004 11:59	2.9
2/16/2004 11:18	2.5	2/16/2004 12:00	2.9
2/16/2004 11:19	2.6	2/16/2004 12:01	3
2/16/2004 11:20	2.4	2/16/2004 12:02	3.1
2/16/2004 11:21	2.4	2/16/2004 12:03	2.7
2/16/2004 11:22	2.2	2/16/2004 12:04	4.9
2/16/2004 11:23	2.3	2/16/2004 12:05	2.3
2/16/2004 11:24	2.3	<b>Final Average*</b>	2.6
2/16/2004 11:25	2.3	<b>Maximum*</b>	4.9
2/16/2004 11:26	2.4	<b>Minimum*</b>	2.1
2/16/2004 11:27	2.3		
2/16/2004 11:28	2.2		
2/16/2004 11:29	2.1		
2/16/2004 11:30	2.1		
2/16/2004 11:31	2.3		
2/16/2004 11:32	3.5		
2/16/2004 11:33	2.3		
2/16/2004 11:34	2.9		
2/16/2004 11:35	2.4		
2/16/2004 11:36	2.6		
2/16/2004 11:37	2.6		
2/16/2004 11:38	2.3		
2/16/2004 11:39	2.2		
2/16/2004 11:40	2.2		
2/16/2004 11:41	2.4		
2/16/2004 11:42	2.3		

\*Does not include Invalid Averaging Periods ("N/A")

GE Energy Services NetDAHS©  
Average Values Report  
Generated: 03/31/05 15:40

Company: Okeelanta CoGen  
Plant:  
City/St: South Bay, FL  
Source: Stack 1

Period Start: 02/16/2004 12:47  
Period End: 02/16/2004 13:49  
Validation Type: 1/1 min  
Averaging Period: 1 min  
Type: Block Avg

Period Start	Average Opacity_1 %	Period Start	Average Opacity_1 %
2/16/2004 12:47	2.4	2/16/2004 13:29	2.4
2/16/2004 12:48	2.3	2/16/2004 13:30	2.6
2/16/2004 12:49	2.6	2/16/2004 13:31	2.5
2/16/2004 12:50	2.5	2/16/2004 13:32	2.7
2/16/2004 12:51	2.3	2/16/2004 13:33	2.5
2/16/2004 12:52	2.3	2/16/2004 13:34	2.4
2/16/2004 12:53	2.3	2/16/2004 13:35	2.4
2/16/2004 12:54	2.2	2/16/2004 13:36	2.3
2/16/2004 12:55	2.1	2/16/2004 13:37	2.4
2/16/2004 12:56	2.3	2/16/2004 13:38	2.4
2/16/2004 12:57	2.3	2/16/2004 13:39	2.6
2/16/2004 12:58	2.3	2/16/2004 13:40	2.3
2/16/2004 12:59	2.3	2/16/2004 13:41	2.5
2/16/2004 13:00	2.3	2/16/2004 13:42	2.5
2/16/2004 13:01	2.3	2/16/2004 13:43	2.6
2/16/2004 13:02	2.2	2/16/2004 13:44	4.2
2/16/2004 13:03	2.2	2/16/2004 13:45	2.5
2/16/2004 13:04	2.3	2/16/2004 13:46	2.3
2/16/2004 13:05	2.4	2/16/2004 13:47	2.2
2/16/2004 13:06	2.4	2/16/2004 13:48	2.7
2/16/2004 13:07	2.3	2/16/2004 13:49	9.5
2/16/2004 13:08	2.3	<b>Final Average*</b>	2.5
2/16/2004 13:09	2.4	<b>Maximum*</b>	9.5
2/16/2004 13:10	2.2	<b>Minimum*</b>	2.1
2/16/2004 13:11	2.2		
2/16/2004 13:12	2.2		
2/16/2004 13:13	2.3		
2/16/2004 13:14	2.3		
2/16/2004 13:15	2.3		
2/16/2004 13:16	2.3		
2/16/2004 13:17	2.3		
2/16/2004 13:18	2.4		
2/16/2004 13:19	2.5		
2/16/2004 13:20	2.6		
2/16/2004 13:21	2.3		
2/16/2004 13:22	2.4		
2/16/2004 13:23	2.3		
2/16/2004 13:24	2.3		
2/16/2004 13:25	2.3		
2/16/2004 13:26	2.4		
2/16/2004 13:27	2.6		
2/16/2004 13:28	2.7		

\*Does not include Invalid Averaging Periods ("N/A")



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Average Values Report  
Generated: 03/31/05 15:45

Company: Okeelanta CoGen  
Plant:  
City/St: South Bay, FL  
Source: Stack 2

Period Start: 02/13/2004 08:52  
Period End: 02/13/2004 09:54  
Validation Type: 1/1 min  
Averaging Period: 1 min  
Type: Block Avg

Period Start	Average Opacity_1 %	Average Opacity_1 %
2/13/2004 8:52	5.7	5.7
2/13/2004 8:53	5.8	5.8
2/13/2004 8:54	5.9	5.9
2/13/2004 8:55	5.6	5.6
2/13/2004 8:56	6	6
2/13/2004 8:57	5.9	5.9
2/13/2004 8:58	5.8	5.8
2/13/2004 8:59	5.8	5.8
2/13/2004 9:00	5.9	5.9
2/13/2004 9:01	5.5	5.5
2/13/2004 9:02	5.7	5.7
2/13/2004 9:03	6	6
2/13/2004 9:04	6	6
2/13/2004 9:05	5.8	5.8
2/13/2004 9:06	5.8	5.8
2/13/2004 9:07	6.2	6.2
2/13/2004 9:08	6.3	6.3
2/13/2004 9:09	6.2	6.2
2/13/2004 9:10	6.4	6.4
2/13/2004 9:11	6.1	6.1
2/13/2004 9:12	6.4	6.4
2/13/2004 9:13	5.9	5.9
2/13/2004 9:14	6.1	6.1
2/13/2004 9:15	6.4	6.4
2/13/2004 9:16	6.1	6.1
2/13/2004 9:17	6	6
2/13/2004 9:18	6.1	6.1
2/13/2004 9:19	6	6
2/13/2004 9:20	5.9	5.9
2/13/2004 9:21	6.1	6.1
2/13/2004 9:22	6.2	6.2
2/13/2004 9:23	6.8	6.8
2/13/2004 9:24	6	6
2/13/2004 9:25	6.3	6.3
2/13/2004 9:26	6.6	6.6
2/13/2004 9:27	6.4	6.4
2/13/2004 9:28	6.4	6.4
2/13/2004 9:29	6.7	6.7
2/13/2004 9:30	6.8	6.8
2/13/2004 9:31	6.8	6.8
2/13/2004 9:32	6.7	6.7
2/13/2004 9:33	7	7

Period Start	Average Opacity_1 %	Average Opacity_1 %
2/13/2004 9:34	7.1	7.1
2/13/2004 9:35	7.9	7.9
2/13/2004 9:36	6.8	6.8
2/13/2004 9:37	6.8	6.8
2/13/2004 9:38	8	8
2/13/2004 9:39	7.6	7.6
2/13/2004 9:40	7.6	7.6
2/13/2004 9:41	7.3	7.3
2/13/2004 9:42	7.6	7.6
2/13/2004 9:43	7.4	7.4
2/13/2004 9:44	6.7	6.7
2/13/2004 9:45	7.4	7.4
2/13/2004 9:46	7.1	7.1
2/13/2004 9:47	6.7	6.7
2/13/2004 9:48	6.6	6.6
2/13/2004 9:49	12.2	12.2
2/13/2004 9:50	6.7	6.7
2/13/2004 9:51	20.4	20.4
2/13/2004 9:52	27.1	27.1
2/13/2004 9:53	12.9	12.9
2/13/2004 9:54	13	13
<b>Final Average*</b>		7.3
<b>Maximum*</b>		27.1
<b>Minimum*</b>		5.5

\*Does not include Invalid Averaging Periods ("N/A")

GE Energy Services NetDAHS©  
Average Values Report  
Generated: 03/31/05 15:47

Company:	Okeelanta CoGen	Period Start:	02/13/2004	12:40
Plant:		Period End:	02/13/2004	13:44
City/St:	South Bay, FL	Validation Type:	1/1 min	
Source:	Stack 2	Averaging Period:	1 min	
		Type:	Block Avg	

<u>Period Start</u>	<u>Average Opacity_1</u>	<u>%</u>	<u>Period Start</u>	<u>Average Opacity_1</u>	<u>%</u>
2/13/2004	12:40	4.8	2/13/2004	13:22	5.5
2/13/2004	12:41	5	2/13/2004	13:23	5.6
2/13/2004	12:42	5	2/13/2004	13:24	6.6
2/13/2004	12:43	5.2	2/13/2004	13:25	5.8
2/13/2004	12:44	5	2/13/2004	13:26	5.3
2/13/2004	12:45	5.1	2/13/2004	13:27	5.4
2/13/2004	12:46	4.9	2/13/2004	13:28	5.5
2/13/2004	12:47	4.8	2/13/2004	13:29	5.6
2/13/2004	12:48	5.9	2/13/2004	13:30	5.6
2/13/2004	12:49	5.7	2/13/2004	13:31	7
2/13/2004	12:50	5	2/13/2004	13:32	6
2/13/2004	12:51	5.1	2/13/2004	13:33	6
2/13/2004	12:52	5.8	2/13/2004	13:34	5.4
2/13/2004	12:53	6	2/13/2004	13:35	5.5
2/13/2004	12:54	5.1	2/13/2004	13:36	5.4
2/13/2004	12:55	4.9	2/13/2004	13:37	5.5
2/13/2004	12:56	5.1	2/13/2004	13:38	5.6
2/13/2004	12:57	5.2	2/13/2004	13:39	5.2
2/13/2004	12:58	5	2/13/2004	13:40	5.6
2/13/2004	12:59	5	2/13/2004	13:41	5.8
2/13/2004	13:00	4.9	2/13/2004	13:42	5.3
2/13/2004	13:01	5.3	2/13/2004	13:43	5.4
2/13/2004	13:02	5.1	<b>Final Average*</b>		5.5
2/13/2004	13:03	5.1	<b>Maximum*</b>		8
2/13/2004	13:04	6.3	<b>Minimum*</b>		4.8
2/13/2004	13:05	5.5			
2/13/2004	13:06	5.3			
2/13/2004	13:07	6.2			
2/13/2004	13:08	8			
2/13/2004	13:09	5.5			
2/13/2004	13:10	5.3			
2/13/2004	13:11	5.3			
2/13/2004	13:12	5.5			
2/13/2004	13:13	5.5			
2/13/2004	13:14	5.3			
2/13/2004	13:15	5.6			
2/13/2004	13:16	5.5			
2/13/2004	13:17	5.2			
2/13/2004	13:18	5.2			
2/13/2004	13:19	7.9			
2/13/2004	13:20	6.2			
2/13/2004	13:21	6.6			

\*Does not include Invalid Averaging Periods ("N/A")

GE Energy Services NetDAHS©  
Average Values Report  
Generated: 03/31/05 15:49

Company: Okeelanta CoGen	Period Start: 02/13/2004 14:27
Plant:	Period End: 02/13/2004 15:32
City/St: South Bay, FL	Validation Type: 1/1 min
Source: Stack 2	Averaging Period: 1 min
	Type: Block Avg

<u>Period Start</u>	<u>Average Opacity_1 %</u>	<u>Period Start</u>	<u>Average Opacity_1 %</u>
2/13/2004 14:27	6.8	2/13/2004 15:09	6
2/13/2004 14:28	8.3	2/13/2004 15:10	7
2/13/2004 14:29	6.2	2/13/2004 15:11	6
2/13/2004 14:30	8.6	2/13/2004 15:12	6.7
2/13/2004 14:31	5.4	2/13/2004 15:13	5.8
2/13/2004 14:32	5.1	2/13/2004 15:14	6.6
2/13/2004 14:33	5.7	2/13/2004 15:15	6
2/13/2004 14:34	5.8	2/13/2004 15:16	6.5
2/13/2004 14:35	5.5	2/13/2004 15:17	6
2/13/2004 14:36	5.6	2/13/2004 15:18	5.9
2/13/2004 14:37	5.4	2/13/2004 15:19	6.3
2/13/2004 14:38	5.7	2/13/2004 15:20	7.6
2/13/2004 14:39	6.3	2/13/2004 15:21	6.6
2/13/2004 14:40	5.6	2/13/2004 15:22	6.5
2/13/2004 14:41	5.7	2/13/2004 15:23	6.4
2/13/2004 14:42	5.5	2/13/2004 15:24	6.2
2/13/2004 14:43	6	2/13/2004 15:25	5.8
2/13/2004 14:44	5.5	2/13/2004 15:26	5.9
2/13/2004 14:45	5.7	2/13/2004 15:27	6.1
2/13/2004 14:46	5.6	2/13/2004 15:28	11
2/13/2004 14:47	5.8	2/13/2004 15:29	6.6
2/13/2004 14:48	5.9	2/13/2004 15:30	6.7
2/13/2004 14:49	5.8	2/13/2004 15:31	13.6
2/13/2004 14:50	6.2	2/13/2004 15:32	6.4
2/13/2004 14:51	6.2		
2/13/2004 14:52	5.9	<b>Final Average*</b>	6.5
2/13/2004 14:53	5.8	<b>Maximum*</b>	16.4
2/13/2004 14:54	5.5	<b>Minimum*</b>	5.1
2/13/2004 14:55	5.5		
2/13/2004 14:56	5.5		
2/13/2004 14:57	5.9		
2/13/2004 14:58	5.9		
2/13/2004 14:59	5.8		
2/13/2004 15:00	7.1		
2/13/2004 15:01	6.2		
2/13/2004 15:02	5.7		
2/13/2004 15:03	6		
2/13/2004 15:04	6.1		
2/13/2004 15:05	6.7		
2/13/2004 15:06	5.8		
2/13/2004 15:07	6.3		
2/13/2004 15:08	6.1		

\*Does not include Invalid Averaging Periods ("N/A")

GE Energy Services NetDAHS©  
Average Values Report  
Generated: 03/31/05 15:52

Company: Okeelanta CoGen  
Plant:  
City/St: South Bay, FL  
Source: Stack 3

Period Start: 02/11/2004 09:50  
Period End: 02/11/2004 10:54  
Validation Type: 1/1 min  
Averaging Period: 1 min  
Type: Block Avg

Period Start	Average Opacity_1 %	Period Start	Average Opacity_1 %
2/11/2004 9:50	5.9	2/11/2004 10:32	5.9
2/11/2004 9:51	5.9	2/11/2004 10:33	6
2/11/2004 9:52	5.9	2/11/2004 10:34	5.9
2/11/2004 9:53	5.8	2/11/2004 10:35	5.9
2/11/2004 9:54	5.9	2/11/2004 10:36	5.9
2/11/2004 9:55	5.8	2/11/2004 10:37	5.9
2/11/2004 9:56	5.9	2/11/2004 10:38	5.9
2/11/2004 9:57	5.9	2/11/2004 10:39	6
2/11/2004 9:58	5.9	2/11/2004 10:40	6
2/11/2004 9:59	6	2/11/2004 10:41	6
2/11/2004 10:00	5.9	2/11/2004 10:42	6
2/11/2004 10:01	5.9	2/11/2004 10:43	6
2/11/2004 10:02	5.9	2/11/2004 10:44	6
2/11/2004 10:03	5.9	2/11/2004 10:45	6
2/11/2004 10:04	6.2	2/11/2004 10:46	6.1
2/11/2004 10:05	6.1	2/11/2004 10:47	6.1
2/11/2004 10:06	6	2/11/2004 10:48	6
2/11/2004 10:07	5.9	2/11/2004 10:49	5.9
2/11/2004 10:08	6	2/11/2004 10:50	7.2
2/11/2004 10:09	6	2/11/2004 10:51	6.3
2/11/2004 10:10	6.1	2/11/2004 10:52	6.5
2/11/2004 10:11	6	2/11/2004 10:53	7.9
2/11/2004 10:12	6.1	2/11/2004 10:54	9.6
2/11/2004 10:13	6	<b>Final Average*</b>	6.1
2/11/2004 10:14	6	<b>Maximum*</b>	9.6
2/11/2004 10:15	6.1	<b>Minimum*</b>	5.8
2/11/2004 10:16	6		
2/11/2004 10:17	6		
2/11/2004 10:18	6.1		
2/11/2004 10:19	6.1		
2/11/2004 10:20	6		
2/11/2004 10:21	6		
2/11/2004 10:22	5.9		
2/11/2004 10:23	5.9		
2/11/2004 10:24	6		
2/11/2004 10:25	5.9		
2/11/2004 10:26	6		
2/11/2004 10:27	6		
2/11/2004 10:28	6		
2/11/2004 10:29	5.9		
2/11/2004 10:30	6		
2/11/2004 10:31	5.9		

\*Does not include Invalid Averaging Periods ("N/A")

GE Energy Services NetDAHS©  
Average Values Report  
Generated: 03/31/05 15:55

Company:	Okeelanta CoGen	Period Start:	02/11/2004	11:36
Plant:		Period End:	02/11/2004	12:42
City/St:	South Bay, FL	Validation Type:	1/1 min	
Source:	Stack 3	Averaging Period:	1 min	
		Type:	Block Avg	

<u>Period Start</u>		<u>Average Opacity_1 %</u>	<u>Period Start</u>		<u>Average Opacity_1 %</u>
2/11/2004	11:36	6.2	2/11/2004	12:18	5.5
2/11/2004	11:37	5.9	2/11/2004	12:19	5.6
2/11/2004	11:38	6	2/11/2004	12:20	5.5
2/11/2004	11:39	6	2/11/2004	12:21	5.5
2/11/2004	11:40	5.9	2/11/2004	12:22	5.5
2/11/2004	11:41	5.9	2/11/2004	12:23	5.8
2/11/2004	11:42	5.9	2/11/2004	12:24	5.6
2/11/2004	11:43	5.9	2/11/2004	12:25	5.4
2/11/2004	11:44	5.7	2/11/2004	12:26	5.5
2/11/2004	11:45	5.8	2/11/2004	12:27	5.6
2/11/2004	11:46	5.8	2/11/2004	12:28	5.5
2/11/2004	11:47	5.8	2/11/2004	12:29	5.5
2/11/2004	11:48	5.6	2/11/2004	12:30	5.4
2/11/2004	11:49	5.6	2/11/2004	12:31	5.3
2/11/2004	11:50	5.7	2/11/2004	12:32	5.4
2/11/2004	11:51	5.6	2/11/2004	12:33	5.5
2/11/2004	11:52	5.5	2/11/2004	12:34	5.6
2/11/2004	11:53	5.5	2/11/2004	12:35	5.4
2/11/2004	11:54	5.5	2/11/2004	12:36	6.6
2/11/2004	11:55	5.6	2/11/2004	12:37	5.7
2/11/2004	11:56	5.5	2/11/2004	12:38	6.4
2/11/2004	11:57	5.5	2/11/2004	12:39	6.3
2/11/2004	11:58	5.5	2/11/2004	12:40	6.3
2/11/2004	11:59	5.5	2/11/2004	12:41	5.8
2/11/2004	12:00	5.4	2/11/2004	12:42	8.8
2/11/2004	12:01	5.6			
2/11/2004	12:02	5.6	<b>Final Average*</b>		5.7
2/11/2004	12:03	5.6	<b>Maximum*</b>		8.8
2/11/2004	12:04	5.7	<b>Minimum*</b>		5.3
2/11/2004	12:05	5.6			
2/11/2004	12:06	5.6			
2/11/2004	12:07	5.7			
2/11/2004	12:08	5.5			
2/11/2004	12:09	5.7			
2/11/2004	12:10	5.6			
2/11/2004	12:11	5.6			
2/11/2004	12:12	5.6			
2/11/2004	12:13	5.7			
2/11/2004	12:14	5.5			
2/11/2004	12:15	5.7			
2/11/2004	12:16	5.5			
2/11/2004	12:17	5.5			

\*Does not include Invalid Averaging Periods ("N/A")

## GE Energy Services NetDAHS©

## Average Values Report

Generated: 03/31/05 15:56

Company: Okeelanta CoGen  
 Plant:  
 City/St: South Bay, FL  
 Source: Stack 3

Period Start: 02/11/2004 13:20  
 Period End: 02/11/2004 14:25  
 Validation Type: 1/1 min  
 Averaging Period: 1 min  
 Type: Block Avg

Period Start	Average Opacity_1 %	Period Start	Average Opacity_1 %
2/11/2004 13:20	5.6	2/11/2004 14:02	5.8
2/11/2004 13:21	5.6	2/11/2004 14:03	5.7
2/11/2004 13:22	5.5	2/11/2004 14:04	5.5
2/11/2004 13:23	5.5	2/11/2004 14:05	5.7
2/11/2004 13:24	5.6	2/11/2004 14:06	5.6
2/11/2004 13:25	5.5	2/11/2004 14:07	5.6
2/11/2004 13:26	5.5	2/11/2004 14:08	5.5
2/11/2004 13:27	5.5	2/11/2004 14:09	5.5
2/11/2004 13:28	5.5	2/11/2004 14:10	5.5
2/11/2004 13:29	5.6	2/11/2004 14:11	5.6
2/11/2004 13:30	5.5	2/11/2004 14:12	6.2
2/11/2004 13:31	5.5	2/11/2004 14:13	6.1
2/11/2004 13:32	5.5	2/11/2004 14:14	5.8
2/11/2004 13:33	5.6	2/11/2004 14:15	5.8
2/11/2004 13:34	5.5	2/11/2004 14:16	5.6
2/11/2004 13:35	5.5	2/11/2004 14:17	5.5
2/11/2004 13:36	5.5	2/11/2004 14:18	5.8
2/11/2004 13:37	5.5	2/11/2004 14:19	5.5
2/11/2004 13:38	5.5	2/11/2004 14:20	6.8
2/11/2004 13:39	5.5	2/11/2004 14:21	6
2/11/2004 13:40	5.5	2/11/2004 14:22	5.9
2/11/2004 13:41	5.5	2/11/2004 14:23	5.9
2/11/2004 13:42	5.5	2/11/2004 14:24	9.3
2/11/2004 13:43	5.4	2/11/2004 14:25	6.1
2/11/2004 13:44	5.4	<b>Final Average*</b>	5.7
2/11/2004 13:45	5.5	<b>Maximum*</b>	9.3
2/11/2004 13:46	5.5	<b>Minimum*</b>	5.4
2/11/2004 13:47	5.4		
2/11/2004 13:48	5.5		
2/11/2004 13:49	5.5		
2/11/2004 13:50	5.5		
2/11/2004 13:51	5.5		
2/11/2004 13:52	5.5		
2/11/2004 13:53	5.7		
2/11/2004 13:54	5.5		
2/11/2004 13:55	5.7		
2/11/2004 13:56	5.5		
2/11/2004 13:57	5.5		
2/11/2004 13:58	5.5		
2/11/2004 13:59	5.5		
2/11/2004 14:00	5.6		
2/11/2004 14:01	5.6		

\*Does not include Invalid Averaging Periods ("N/A")

**2003**

GE Energy Services NetDAHS©  
Average Values Report  
Generated: 04/07/05 12:22

Company: Okeelanta CoGen  
Plant:  
City/St: South Bay, FL  
Source: Stack 1

Period Start: 01/22/03 09:43  
Period End: 01/22/03 11:42  
Validation Type: 1/1 min  
Averaging Period: 1 min  
Type: Block Avg

Period Start	Average Opacity_1 %	Period Start	Average Opacity_1 %
1/22/2003 9:43	2.3	1/22/2003 10:47	5
1/22/2003 9:44	2.3	1/22/2003 10:48	3.1
1/22/2003 9:45	2.3	1/22/2003 10:49	2.4
1/22/2003 9:46	2.2	1/22/2003 10:50	2.6
1/22/2003 9:47	2.3	1/22/2003 10:51	2.3
1/22/2003 9:48	2.3	1/22/2003 10:52	2.7
1/22/2003 9:49	2.3	1/22/2003 10:53	2.6
1/22/2003 9:50	2.2	1/22/2003 10:54	2.2
1/22/2003 9:51	2.2	1/22/2003 10:55	2.1
1/22/2003 9:52	2.3	1/22/2003 10:56	2.2
1/22/2003 9:53	2.3	1/22/2003 10:57	2.1
1/22/2003 9:54	2.3	1/22/2003 10:58	2.2
1/22/2003 9:55	2.2	1/22/2003 10:59	2.1
1/22/2003 9:56	2.1	1/22/2003 11:00	2.2
1/22/2003 9:57	2.1	1/22/2003 11:01	2.3
1/22/2003 9:58	2.2	1/22/2003 11:02	2.1
1/22/2003 9:59	3.1	1/22/2003 11:03	2.3
1/22/2003 10:00	2.7	1/22/2003 11:04	2.1
1/22/2003 10:01	2.4	1/22/2003 11:05	2.3
1/22/2003 10:02	2.2	1/22/2003 11:06	2.2
1/22/2003 10:03	2.3	1/22/2003 11:07	2.1
1/22/2003 10:04	2.3	1/22/2003 11:08	2.3
1/22/2003 10:05	2.4	1/22/2003 11:09	2.1
1/22/2003 10:06	2.3	1/22/2003 11:10	2.4
1/22/2003 10:07	2.1	1/22/2003 11:11	2.3
1/22/2003 10:08	2	1/22/2003 11:12	2.2
1/22/2003 10:09	2	1/22/2003 11:13	2
1/22/2003 10:10	2	1/22/2003 11:14	2.3
1/22/2003 10:11	1.9	1/22/2003 11:15	2.3
1/22/2003 10:12	1.9	1/22/2003 11:16	2.5
1/22/2003 10:13	1.9	1/22/2003 11:17	2.4
1/22/2003 10:14	1.9	1/22/2003 11:18	2.5
1/22/2003 10:15	2	1/22/2003 11:19	2.6
1/22/2003 10:16	2.1	1/22/2003 11:20	2.4
1/22/2003 10:17	2.3	1/22/2003 11:21	2.6
1/22/2003 10:18	2.3	1/22/2003 11:22	2.3
1/22/2003 10:19	2.2	1/22/2003 11:23	2.4
1/22/2003 10:20	2.1	1/22/2003 11:24	2.5
1/22/2003 10:21	5.3	1/22/2003 11:25	2.3
1/22/2003 10:22	6.3	1/22/2003 11:26	2.3
1/22/2003 10:23	2.6	1/22/2003 11:27	2.3
1/22/2003 10:24	2.1	1/22/2003 11:28	2.4
1/22/2003 10:25	2.2	1/22/2003 11:29	2.6
1/22/2003 10:26	2.3	1/22/2003 11:30	2.4
1/22/2003 10:27	2.4	1/22/2003 11:31	2.4
1/22/2003 10:28	6.5	1/22/2003 11:32	2.4
1/22/2003 10:29	3	1/22/2003 11:33	2.4
1/22/2003 10:30	2.5	1/22/2003 11:34	2.3
1/22/2003 10:31	3.1	1/22/2003 11:35	2.3
1/22/2003 10:32	13.5	1/22/2003 11:36	2.2
1/22/2003 10:33	33.1	1/22/2003 11:37	2.1
1/22/2003 10:34	25.8	1/22/2003 11:38	2.5
1/22/2003 10:35	24.8	1/22/2003 11:39	2.2
1/22/2003 10:36	16.6	1/22/2003 11:40	5.4
1/22/2003 10:37	11.3	1/22/2003 11:41	3.9
1/22/2003 10:38	4.6	1/22/2003 11:42	3.5
1/22/2003 10:39	3.1	<b>Final Average*</b>	3.4
1/22/2003 10:40	3	<b>Maximum*</b>	33.1
1/22/2003 10:41	2.7	<b>Minimum*</b>	1.9
1/22/2003 10:42	3		
1/22/2003 10:43	2.8		
1/22/2003 10:44	2.3		
1/22/2003 10:45	2.2		
1/22/2003 10:46	2.4		

\*Does not include Invalid Averaging Periods ("N).



GE Energy Services NetDAHS©  
 Average Values Report  
 Generated: 04/07/05 12:28

Company: Okeelanta CoGen	Period Start: 01/22/03	12:17
Plant:	Period End: 01/22/03	13:20
City/St: South Bay, FL	Validation Type: 1/1 min	
Source: Stack 1	Averaging Period: 1 min	
	Type: Block Avg	

<u>Period Start</u>	<u>Average Opacity_1 %</u>	<u>Period Start</u>	<u>Average Opacity_1 %</u>
1/22/2003 12:17	2.3	1/22/2003 12:59	2.2
1/22/2003 12:18	2.1	1/22/2003 13:00	2.3
1/22/2003 12:19	2.4	1/22/2003 13:01	2.3
1/22/2003 12:20	2.4	1/22/2003 13:02	2.3
1/22/2003 12:21	2.3	1/22/2003 13:03	2.4
1/22/2003 12:22	2.3	1/22/2003 13:04	2.8
1/22/2003 12:23	2.3	1/22/2003 13:05	2.4
1/22/2003 12:24	2.4	1/22/2003 13:06	2.4
1/22/2003 12:25	2.5	1/22/2003 13:07	2.4
1/22/2003 12:26	2.5	1/22/2003 13:08	2.4
1/22/2003 12:27	2.6	1/22/2003 13:09	2.5
1/22/2003 12:28	2.3	1/22/2003 13:10	2.2
1/22/2003 12:29	2.3	1/22/2003 13:11	2.3
1/22/2003 12:30	2.3	1/22/2003 13:12	2.3
1/22/2003 12:31	2.2	1/22/2003 13:13	2.4
1/22/2003 12:32	2.2	1/22/2003 13:14	2.2
1/22/2003 12:33	2.1	1/22/2003 13:15	2.8
1/22/2003 12:34	2.1	1/22/2003 13:16	2.6
1/22/2003 12:35	2.2	1/22/2003 13:17	2.6
1/22/2003 12:36	2.3	1/22/2003 13:18	4.2
1/22/2003 12:37	2.7	1/22/2003 13:19	2.4
1/22/2003 12:38	2.4	1/22/2003 13:20	2.4
1/22/2003 12:39	2.3	<b>Final Average*</b>	2.4
1/22/2003 12:40	2.5	<b>Maximum*</b>	4.2
1/22/2003 12:41	2.6	<b>Minimum*</b>	2.1
1/22/2003 12:42	2.6		
1/22/2003 12:43	2.7		
1/22/2003 12:44	2.9		
1/22/2003 12:45	2.6		
1/22/2003 12:46	2.5		
1/22/2003 12:47	2.4		
1/22/2003 12:48	2.4		
1/22/2003 12:49	2.3		
1/22/2003 12:50	2.4		
1/22/2003 12:51	2.4		
1/22/2003 12:52	2.5		
1/22/2003 12:53	2.5		
1/22/2003 12:54	2.4		
1/22/2003 12:55	2.5		
1/22/2003 12:56	2.4		
1/22/2003 12:57	2.3		
1/22/2003 12:58	2.3		

\*Does not include Invalid Averaging Periods ("N/A")

## GE Energy Services NetDAHS©

## Average Values Report

Generated: 04/07/05 12:30

Company: Okeelanta CoGen  
 Plant:  
 City/St: South Bay, FL  
 Source: Stack 1

Period Start: 01/22/03 14:03  
 Period End: 01/22/03 15:06  
 Validation Type: 1/1 min  
 Averaging Period: 1 min  
 Type: Block Avg

Period Start	Average Opacity_1 %	Period Start	Average Opacity_1 %
1/22/2003 14:03	2	1/22/2003 14:45	2
1/22/2003 14:04	2.3	1/22/2003 14:46	2.1
1/22/2003 14:05	2	1/22/2003 14:47	2.2
1/22/2003 14:06	2	1/22/2003 14:48	2.2
1/22/2003 14:07	2	1/22/2003 14:49	2.1
1/22/2003 14:08	1.9	1/22/2003 14:50	2.3
1/22/2003 14:09	1.9	1/22/2003 14:51	2.1
1/22/2003 14:10	2	1/22/2003 14:52	2.2
1/22/2003 14:11	2	1/22/2003 14:53	2
1/22/2003 14:12	2	1/22/2003 14:54	1.9
1/22/2003 14:13	2.3	1/22/2003 14:55	2.3
1/22/2003 14:14	2.2	1/22/2003 14:56	2.2
1/22/2003 14:15	2.2	1/22/2003 14:57	2.2
1/22/2003 14:16	2	1/22/2003 14:58	2.1
1/22/2003 14:17	2	1/22/2003 14:59	2.1
1/22/2003 14:18	2	1/22/2003 15:00	2
1/22/2003 14:19	2.2	1/22/2003 15:01	2.6
1/22/2003 14:20	2.1	1/22/2003 15:02	2.2
1/22/2003 14:21	2.3	1/22/2003 15:03	2.3
1/22/2003 14:22	2	1/22/2003 15:04	8.1
1/22/2003 14:23	2	1/22/2003 15:05	2.8
1/22/2003 14:24	2	1/22/2003 15:06	2.5
1/22/2003 14:25	2	<b>Final Average*</b>	2.2
1/22/2003 14:26	1.9	<b>Maximum*</b>	8.1
1/22/2003 14:27	1.9	<b>Minimum*</b>	1.8
1/22/2003 14:28	1.8		
1/22/2003 14:29	1.9		
1/22/2003 14:30	2		
1/22/2003 14:31	1.9		
1/22/2003 14:32	1.9		
1/22/2003 14:33	1.9		
1/22/2003 14:34	2		
1/22/2003 14:35	2.1		
1/22/2003 14:36	2		
1/22/2003 14:37	2.2		
1/22/2003 14:38	2.2		
1/22/2003 14:39	2.3		
1/22/2003 14:40	2.1		
1/22/2003 14:41	2		
1/22/2003 14:42	2		
1/22/2003 14:43	2		
1/22/2003 14:44	2.1		

\*Does not include Invalid Averaging Periods ("N/A")

## GE Energy Services NetDAHS©

## Average Values Report

Generated: 04/07/05 12:33

Company: Okeelanta CoGen  
 Plant:  
 City/St: South Bay, FL  
 Source: Stack 2

Period Start: 01/23/03 10:58  
 Period End: 01/23/03 12:01  
 Validation Type: 1/1 min  
 Averaging Period: 1 min  
 Type: Block Avg

Period Start	Average Opacity_1 %	Period Start	Average Opacity_1 %
1/23/2003 10:58	3.6	1/23/2003 11:40	3.9
1/23/2003 10:59	3.7	1/23/2003 11:41	3.8
1/23/2003 11:00	3.6	1/23/2003 11:42	3.7
1/23/2003 11:01	3.6	1/23/2003 11:43	4
1/23/2003 11:02	3.8	1/23/2003 11:44	4
1/23/2003 11:03	3.7	1/23/2003 11:45	3.8
1/23/2003 11:04	4	1/23/2003 11:46	3.6
1/23/2003 11:05	3.6	1/23/2003 11:47	3.7
1/23/2003 11:06	3.6	1/23/2003 11:48	3.6
1/23/2003 11:07	3.7	1/23/2003 11:49	3.6
1/23/2003 11:08	4.9	1/23/2003 11:50	3.6
1/23/2003 11:09	3.7	1/23/2003 11:51	3.6
1/23/2003 11:10	3.7	1/23/2003 11:52	4.1
1/23/2003 11:11	3.6	1/23/2003 11:53	3.6
1/23/2003 11:12	3.6	1/23/2003 11:54	3.7
1/23/2003 11:13	3.6	1/23/2003 11:55	3.6
1/23/2003 11:14	3.6	1/23/2003 11:56	3.6
1/23/2003 11:15	3.7	1/23/2003 11:57	3.6
1/23/2003 11:16	3.7	1/23/2003 11:58	3.9
1/23/2003 11:17	3.6	1/23/2003 11:59	3.7
1/23/2003 11:18	3.9	1/23/2003 12:00	3.6
1/23/2003 11:19	3.6	1/23/2003 12:01	4.1
1/23/2003 11:20	3.6	<b>Final Average*</b>	3.7
1/23/2003 11:21	3.6	<b>Maximum*</b>	4.9
1/23/2003 11:22	3.7	<b>Minimum*</b>	3.6
1/23/2003 11:23	3.7		
1/23/2003 11:24	3.8		
1/23/2003 11:25	3.7		
1/23/2003 11:26	3.8		
1/23/2003 11:27	3.8		
1/23/2003 11:28	3.8		
1/23/2003 11:29	3.7		
1/23/2003 11:30	3.7		
1/23/2003 11:31	3.8		
1/23/2003 11:32	3.8		
1/23/2003 11:33	3.7		
1/23/2003 11:34	3.6		
1/23/2003 11:35	3.7		
1/23/2003 11:36	3.6		
1/23/2003 11:37	3.8		
1/23/2003 11:38	3.8		
1/23/2003 11:39	3.6		

\*Does not include Invalid Averaging Periods ("N/A")

GE Energy Services NetDAHS©  
Average Values Report  
Generated: 04/07/05 12:35

Company: Okeelanta CoGen  
Plant:  
City/St: South Bay, FL  
Source: Stack 2

Period Start: 01/23/03 12:31  
Period End: 01/23/03 13:34  
Validation Type: 1/1 min  
Averaging Period: 1 min  
Type: Block Avg

Period Start	Average Opacity_1 %	Period Start	Average Opacity_1 %
1/23/2003 12:31	3.6	1/23/2003 13:13	3.7
1/23/2003 12:32	3.6	1/23/2003 13:14	3.6
1/23/2003 12:33	3.6	1/23/2003 13:15	3.7
1/23/2003 12:34	3.6	1/23/2003 13:16	3.7
1/23/2003 12:35	3.5	1/23/2003 13:17	3.8
1/23/2003 12:36	3.6	1/23/2003 13:18	3.7
1/23/2003 12:37	3.5	1/23/2003 13:19	3.6
1/23/2003 12:38	3.6	1/23/2003 13:20	3.7
1/23/2003 12:39	3.6	1/23/2003 13:21	3.6
1/23/2003 12:40	3.6	1/23/2003 13:22	3.6
1/23/2003 12:41	3.6	1/23/2003 13:23	3.6
1/23/2003 12:42	3.6	1/23/2003 13:24	3.5
1/23/2003 12:43	3.6	1/23/2003 13:25	3.5
1/23/2003 12:44	3.6	1/23/2003 13:26	3.6
1/23/2003 12:45	3.6	1/23/2003 13:27	3.6
1/23/2003 12:46	3.6	1/23/2003 13:28	4.2
1/23/2003 12:47	3.6	1/23/2003 13:29	7.5
1/23/2003 12:48	3.6	1/23/2003 13:30	6.2
1/23/2003 12:49	3.5	1/23/2003 13:31	7
1/23/2003 12:50	3.5	1/23/2003 13:32	4.8
1/23/2003 12:51	3.6	1/23/2003 13:33	4.2
1/23/2003 12:52	3.5	1/23/2003 13:34	4.4
1/23/2003 12:53	3.6		
1/23/2003 12:54	3.5		
1/23/2003 12:55	3.5		
1/23/2003 12:56	3.6		
1/23/2003 12:57	3.6		
1/23/2003 12:58	3.6		
1/23/2003 12:59	3.4		
1/23/2003 13:00	3.6		
1/23/2003 13:01	3.5		
1/23/2003 13:02	3.6		
1/23/2003 13:03	3.5		
1/23/2003 13:04	3.6		
1/23/2003 13:05	3.5		
1/23/2003 13:06	3.6		
1/23/2003 13:07	3.5		
1/23/2003 13:08	3.6		
1/23/2003 13:09	3.8		
1/23/2003 13:10	4.8		
1/23/2003 13:11	3.7		
1/23/2003 13:12	3.7		
		<b>Final Average*</b>	3.8
		<b>Maximum*</b>	7.5
		<b>Minimum*</b>	3.4

\*Does not include Invalid Averaging Periods ("N/A")

GE Energy Services NetDAHS©  
Average Values Report  
Generated: 04/07/05 12:36

Company: Okeelanta CoGen	Period Start: 01/23/03	14:01
Plant:	Period End: 01/23/03	15:04
City/St: South Bay, FL	Validation Type: 1/1 min	
Source: Stack 2	Averaging Period: 1 min	
	Type: Block Avg	

<b>Period Start</b>	<b>Average Opacity_1</b>	<b>%</b>	<b>Period Start</b>	<b>Average Opacity_1</b>	<b>%</b>
1/23/2003	14:01	3.3	1/23/2003	14:43	3.4
1/23/2003	14:02	3.3	1/23/2003	14:44	3.3
1/23/2003	14:03	3.5	1/23/2003	14:45	3.3
1/23/2003	14:04	3.3	1/23/2003	14:46	3.3
1/23/2003	14:05	3.2	1/23/2003	14:47	3.3
1/23/2003	14:06	3.5	1/23/2003	14:48	3.6
1/23/2003	14:07	3.5	1/23/2003	14:49	3.5
1/23/2003	14:08	3.7	1/23/2003	14:50	3.5
1/23/2003	14:09	3.6	1/23/2003	14:51	3.5
1/23/2003	14:10	3.7	1/23/2003	14:52	4.1
1/23/2003	14:11	3.7	1/23/2003	14:53	3.6
1/23/2003	14:12	3.8	1/23/2003	14:54	3.6
1/23/2003	14:13	3.7	1/23/2003	14:55	3.8
1/23/2003	14:14	3.6	1/23/2003	14:56	3.8
1/23/2003	14:15	3.4	1/23/2003	14:57	3.8
1/23/2003	14:16	3.4	1/23/2003	14:58	3.6
1/23/2003	14:17	3.4	1/23/2003	14:59	3.7
1/23/2003	14:18	3.4	1/23/2003	15:00	3.5
1/23/2003	14:19	3.6	1/23/2003	15:01	6.5
1/23/2003	14:20	3.4	1/23/2003	15:02	4
1/23/2003	14:21	3.4	1/23/2003	15:03	3.8
1/23/2003	14:22	3.4	1/23/2003	15:04	4.1
1/23/2003	14:23	3.4	<b>Final Average*</b>		3.5
1/23/2003	14:24	3.4	<b>Maximum*</b>		6.5
1/23/2003	14:25	3.3	<b>Minimum*</b>		3.1
1/23/2003	14:26	3.4			
1/23/2003	14:27	3.3			
1/23/2003	14:28	3.6			
1/23/2003	14:29	3.6			
1/23/2003	14:30	3.5			
1/23/2003	14:31	3.6			
1/23/2003	14:32	3.4			
1/23/2003	14:33	3.2			
1/23/2003	14:34	3.2			
1/23/2003	14:35	3.1			
1/23/2003	14:36	3.1			
1/23/2003	14:37	3.1			
1/23/2003	14:38	3.3			
1/23/2003	14:39	3.3			
1/23/2003	14:40	3.3			
1/23/2003	14:41	3.2			
1/23/2003	14:42	3.5			

\*Does not include Invalid Averaging Periods ("N/A")

GE Energy Services NetDAHS©  
Average Values Report  
Generated: 04/07/05 12:39

Company: Okeelanta CoGen	Period Start: 01/21/03	12:16
Plant:	Period End: 01/21/03	13:21
City/St: South Bay, FL	Validation Type: 1/1 min	
Source: Stack 3	Averaging Period: 1 min	
	Type: Block Avg	

Period Start		Average Opacity_1 %	Period Start		Average Opacity_1 %
1/21/2003	12:16	0.2	1/21/2003	12:58	-0.1
1/21/2003	12:17	0	1/21/2003	12:59	-0.1
1/21/2003	12:18	-0.1	1/21/2003	13:00	-0.1
1/21/2003	12:19	-0.1	1/21/2003	13:01	-0.2
1/21/2003	12:20	-0.1	1/21/2003	13:02	-0.2
1/21/2003	12:21	0	1/21/2003	13:03	-0.1
1/21/2003	12:22	0.1	1/21/2003	13:04	0.1
1/21/2003	12:23	-0.1	1/21/2003	13:05	0.1
1/21/2003	12:24	-0.1	1/21/2003	13:06	-0.2
1/21/2003	12:25	-0.1	1/21/2003	13:07	-0.1
1/21/2003	12:26	-0.1	1/21/2003	13:08	-0.1
1/21/2003	12:27	-0.2	1/21/2003	13:09	0
1/21/2003	12:28	0	1/21/2003	13:10	0.2
1/21/2003	12:29	-0.2	1/21/2003	13:11	-0.1
1/21/2003	12:30	-0.1	1/21/2003	13:12	0
1/21/2003	12:31	0	1/21/2003	13:13	0
1/21/2003	12:32	-0.1	1/21/2003	13:14	0.1
1/21/2003	12:33	-0.2	1/21/2003	13:15	0.1
1/21/2003	12:34	-0.1	1/21/2003	13:16	0.6
1/21/2003	12:35	-0.1	1/21/2003	13:17	-0.1
1/21/2003	12:36	0	1/21/2003	13:18	-0.1
1/21/2003	12:37	-0.2	1/21/2003	13:19	0
1/21/2003	12:38	-0.1	1/21/2003	13:20	0.3
1/21/2003	12:39	-0.1	1/21/2003	13:21	0.8
1/21/2003	12:40	-0.1	<b>Final Average*</b>		0
1/21/2003	12:41	-0.2	<b>Maximum*</b>		1
1/21/2003	12:42	-0.2	<b>Minimum*</b>		-0.3
1/21/2003	12:43	-0.2			
1/21/2003	12:44	-0.3			
1/21/2003	12:45	0.2			
1/21/2003	12:46	1			
1/21/2003	12:47	0.2			
1/21/2003	12:48	0			
1/21/2003	12:49	0			
1/21/2003	12:50	0.5			
1/21/2003	12:51	-0.1			
1/21/2003	12:52	0			
1/21/2003	12:53	-0.1			
1/21/2003	12:54	0			
1/21/2003	12:55	0.1			
1/21/2003	12:56	0.2			
1/21/2003	12:57	-0.1			

\*Does not include Invalid Averaging Periods ("N/A")

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Average Values Report  
Generated: 04/07/05 12:40

Company: Okeelanta CoGen	Period Start: 01/21/03	14:07
Plant:	Period End: 01/21/03	15:10
City/St: South Bay, FL	Validation Type: 1/1 min	
Source: Stack 3	Averaging Period: 1 min	
	Type: Block Avg	

<u>Period Start</u>		<u>Average Opacity_1 %</u>	<u>Period Start</u>		<u>Average Opacity_1 %</u>
1/21/2003	14:07	-0.1	1/21/2003	14:49	-0.3
1/21/2003	14:08	-0.1	1/21/2003	14:50	-0.4
1/21/2003	14:09	-0.2	1/21/2003	14:51	-0.4
1/21/2003	14:10	-0.1	1/21/2003	14:52	-0.3
1/21/2003	14:11	-0.1	1/21/2003	14:53	-0.3
1/21/2003	14:12	-0.2	1/21/2003	14:54	-0.4
1/21/2003	14:13	-0.2	1/21/2003	14:55	-0.4
1/21/2003	14:14	-0.1	1/21/2003	14:56	-0.4
1/21/2003	14:15	0.1	1/21/2003	14:57	-0.3
1/21/2003	14:16	-0.1	1/21/2003	14:58	-0.5
1/21/2003	14:17	-0.1	1/21/2003	14:59	-0.3
1/21/2003	14:18	0.2	1/21/2003	15:00	-0.4
1/21/2003	14:19	-0.2	1/21/2003	15:01	-0.3
1/21/2003	14:20	0.8	1/21/2003	15:02	-0.5
1/21/2003	14:21	0	1/21/2003	15:03	-0.4
1/21/2003	14:22	-0.3	1/21/2003	15:04	-0.2
1/21/2003	14:23	-0.3	1/21/2003	15:05	-0.3
1/21/2003	14:24	-0.3	1/21/2003	15:06	0
1/21/2003	14:25	0.1	1/21/2003	15:07	-0.3
1/21/2003	14:26	-0.1	1/21/2003	15:08	-0.2
1/21/2003	14:27	0.1	1/21/2003	15:09	0.3
1/21/2003	14:28	0	1/21/2003	15:10	-0.2
1/21/2003	14:29	-0.3	<b>Final Average*</b>		-0.2
1/21/2003	14:30	-0.2	<b>Maximum*</b>		0.8
1/21/2003	14:31	-0.2	<b>Minimum*</b>		-0.5
1/21/2003	14:32	-0.1			
1/21/2003	14:33	-0.2			
1/21/2003	14:34	-0.3			
1/21/2003	14:35	0			
1/21/2003	14:36	-0.1			
1/21/2003	14:37	-0.2			
1/21/2003	14:38	-0.3			
1/21/2003	14:39	-0.2			
1/21/2003	14:40	-0.3			
1/21/2003	14:41	-0.2			
1/21/2003	14:42	-0.2			
1/21/2003	14:43	-0.3			
1/21/2003	14:44	-0.2			
1/21/2003	14:45	-0.4			
1/21/2003	14:46	-0.4			
1/21/2003	14:47	-0.3			
1/21/2003	14:48	-0.3			

\*Does not include Invalid Averaging Periods ("N/A")

GE Energy Services NetDAHS©  
Average Values Report  
Generated: 04/07/05 12:42

Company: Okeelanta CoGen	Period Start: 01/21/03	16:13
Plant:	Period End: 01/21/03	17:24
City/St: South Bay, FL	Validation Type: 1/1 min	
Source: Stack 3	Averaging Period: 1 min	
	Type: Block Avg	

<b>Period Start</b>	<b>Average Opacity_1</b>	<b>%</b>	<b>Period Start</b>	<b>Average Opacity_1</b>	<b>%</b>
1/21/2003	16:13	1.6	1/21/2003	16:55	0
1/21/2003	16:14	0.8	1/21/2003	16:56	0.1
1/21/2003	16:15	1.3	1/21/2003	16:57	0
1/21/2003	16:16	0.8	1/21/2003	16:58	0
1/21/2003	16:17	4	1/21/2003	16:59	-0.1
1/21/2003	16:18	4	1/21/2003	17:00	-0.2
1/21/2003	16:19	0.1	1/21/2003	17:01	-0.1
1/21/2003	16:20	-0.1	1/21/2003	17:02	0.2
1/21/2003	16:21	0	1/21/2003	17:03	-0.1
1/21/2003	16:22	-0.1	1/21/2003	17:04	-0.1
1/21/2003	16:23	-0.1	1/21/2003	17:05	-0.2
1/21/2003	16:24	0.1	1/21/2003	17:06	-0.1
1/21/2003	16:25	0	1/21/2003	17:07	-0.1
1/21/2003	16:26	-0.1	1/21/2003	17:08	0
1/21/2003	16:27	0.3	1/21/2003	17:09	0.1
1/21/2003	16:28	0	1/21/2003	17:10	0.2
1/21/2003	16:29	0.2	1/21/2003	17:11	0.2
1/21/2003	16:30	-0.1	1/21/2003	17:12	0.1
1/21/2003	16:31	-0.1	1/21/2003	17:13	0.1
1/21/2003	16:32	-0.1	1/21/2003	17:14	0.1
1/21/2003	16:33	0.3	1/21/2003	17:15	0.1
1/21/2003	16:34	0	1/21/2003	17:16	0.1
1/21/2003	16:35	-0.3	1/21/2003	17:17	0.2
1/21/2003	16:36	-0.3	1/21/2003	17:18	0.1
1/21/2003	16:37	-0.4	1/21/2003	17:19	0.2
1/21/2003	16:38	-0.3	1/21/2003	17:20	0.1
1/21/2003	16:39	-0.3	1/21/2003	17:21	0.7
1/21/2003	16:40	-0.4	1/21/2003	17:22	0.6
1/21/2003	16:41	-0.3	1/21/2003	17:23	0.2
1/21/2003	16:42	-0.1	1/21/2003	17:24	0
1/21/2003	16:43	-0.3	<b>Final Average*</b>		0.2
1/21/2003	16:44	-0.3	<b>Maximum*</b>		4
1/21/2003	16:45	-0.2	<b>Minimum*</b>		-0.4
1/21/2003	16:46	-0.1			
1/21/2003	16:47	-0.2			
1/21/2003	16:48	-0.3			
1/21/2003	16:49	-0.1			
1/21/2003	16:50	0			
1/21/2003	16:51	-0.2			
1/21/2003	16:52	0			
1/21/2003	16:53	0			
1/21/2003	16:54	0			

\*Does not include Invalid Averaging Periods ("N/A")



**2002**

## GE Energy Services NetDAHS©

## Average Values Report

Generated: 04/07/05 13:12

Company: Okeelanta CoGen  
 Plant:  
 City/St: South Bay, FL  
 Source: Stack 1

Period Start: 02/13/02 10:16  
 Period End: 02/13/02 11:19  
 Validation Type: 1/1 min  
 Averaging Period: 1 min  
 Type: Block Avg

Period Start		Average Opacity_1 %	Period Start		Average Opacity_1 %
2/13/2002	10:16	4.6	2/13/2002	10:58	5.9
2/13/2002	10:17	4.5	2/13/2002	10:59	5.7
2/13/2002	10:18	5.1	2/13/2002	11:00	6.2
2/13/2002	10:19	4.8	2/13/2002	11:01	5.3
2/13/2002	10:20	5.5	2/13/2002	11:02	5.5
2/13/2002	10:21	6.7	2/13/2002	11:03	5.4
2/13/2002	10:22	5.1	2/13/2002	11:04	5.9
2/13/2002	10:23	4.2	2/13/2002	11:05	6
2/13/2002	10:24	4.5	2/13/2002	11:06	5.7
2/13/2002	10:25	4.4	2/13/2002	11:07	6.2
2/13/2002	10:26	4.4	2/13/2002	11:08	6.4
2/13/2002	10:27	5.4	2/13/2002	11:09	6
2/13/2002	10:28	5	2/13/2002	11:10	5.1
2/13/2002	10:29	5.4	2/13/2002	11:11	5.5
2/13/2002	10:30	4.9	2/13/2002	11:12	7.2
2/13/2002	10:31	5.2	2/13/2002	11:13	6.3
2/13/2002	10:32	4.9	2/13/2002	11:14	6
2/13/2002	10:33	5.4	2/13/2002	11:15	4.9
2/13/2002	10:34	5.5	2/13/2002	11:16	5.3
2/13/2002	10:35	5.3	2/13/2002	11:17	5
2/13/2002	10:36	4.6	2/13/2002	11:18	5.2
2/13/2002	10:37	4.8	2/13/2002	13:20	2.4
2/13/2002	10:38	5.5	<b>Final Average*</b>		5.5
2/13/2002	10:39	4.5	<b>Maximum*</b>		22.4
2/13/2002	10:40	4.5	<b>Minimum*</b>		4.2
2/13/2002	10:41	4.9			
2/13/2002	10:42	4.5			
2/13/2002	10:43	4.3			
2/13/2002	10:44	4.5			
2/13/2002	10:45	4.6			
2/13/2002	10:46	4.8			
2/13/2002	10:47	6			
2/13/2002	10:48	4.8			
2/13/2002	10:49	4.9			
2/13/2002	10:50	4.9			
2/13/2002	10:51	4.6			
2/13/2002	10:52	5			
2/13/2002	10:53	4.7			
2/13/2002	10:54	5.6			
2/13/2002	10:55	22.4			
2/13/2002	10:56	6.8			
2/13/2002	10:57	5.8			

\*Does not include Invalid Averaging Periods ("N/A")

GE Energy Services NetDAHS©  
Average Values Report  
Generated: 04/07/05 13:15

Company: Okeelanta CoGen	Period Start: 02/13/02	12:09
Plant:	Period End: 02/13/02	13:13
City/St: South Bay, FL	Validation Type: 1/1 min	
Source: Stack 1	Averaging Period: 1 min	
	Type: Block Avg	

<u>Period Start</u>	<u>Average Opacity_1</u>	<u>%</u>	<u>Period Start</u>	<u>Average Opacity_1</u>	<u>%</u>
2/13/2002	12:09	4	2/13/2002	12:51	6
2/13/2002	12:10	3.9	2/13/2002	12:52	4.3
2/13/2002	12:11	4.4	2/13/2002	12:53	4.9
2/13/2002	12:12	3.6	2/13/2002	12:54	4.6
2/13/2002	12:13	3.7	2/13/2002	12:55	5.4
2/13/2002	12:14	3.5	2/13/2002	12:56	4.4
2/13/2002	12:15	3.5	2/13/2002	12:57	4.1
2/13/2002	12:16	3.5	2/13/2002	12:58	4
2/13/2002	12:17	3.6	2/13/2002	12:59	4.5
2/13/2002	12:18	3.7	2/13/2002	13:00	4
2/13/2002	12:19	3.7	2/13/2002	13:01	4.2
2/13/2002	12:20	3.9	2/13/2002	13:02	4
2/13/2002	12:21	4.3	2/13/2002	13:03	4.1
2/13/2002	12:22	3.7	2/13/2002	13:04	4
2/13/2002	12:23	3.7	2/13/2002	13:05	32.6
2/13/2002	12:24	3.8	2/13/2002	13:06	13.9
2/13/2002	12:25	3.7	2/13/2002	13:07	5.9
2/13/2002	12:26	3.9	2/13/2002	13:08	5.6
2/13/2002	12:27	3.8	2/13/2002	13:09	4.9
2/13/2002	12:28	3.8	2/13/2002	13:10	5
2/13/2002	12:29	3.7	2/13/2002	13:11	4.6
2/13/2002	12:30	3.6	2/13/2002	13:12	4.9
2/13/2002	12:31	3.7	2/13/2002	13:13	4.5
2/13/2002	12:32	4.1	<b>Final Average*</b>		4.7
2/13/2002	12:33	5.1	<b>Maximum*</b>		32.6
2/13/2002	12:34	3.9	<b>Minimum*</b>		3.5
2/13/2002	12:35	3.8			
2/13/2002	12:36	3.7			
2/13/2002	12:37	3.7			
2/13/2002	12:38	3.8			
2/13/2002	12:39	3.9			
2/13/2002	12:40	3.7			
2/13/2002	12:41	3.7			
2/13/2002	12:42	3.6			
2/13/2002	12:43	3.8			
2/13/2002	12:44	3.9			
2/13/2002	12:45	3.6			
2/13/2002	12:46	3.6			
2/13/2002	12:47	3.8			
2/13/2002	12:48	4.1			
2/13/2002	12:49	4.1			
2/13/2002	12:50	3.9			

\*Does not include Invalid Averaging Periods ("N/A")

GE Energy Services NetDAHS©  
Average Values Report  
Generated: 04/07/05 13:17

Company: Okeelanta CoGen  
Plant:  
City/St: South Bay, FL  
Source: Stack 1

Period Start: 02/13/02 13:44  
Period End: 02/13/02 14:48  
Validation Type: 1/1 min  
Averaging Period: 1 min  
Type: Block Avg

Period Start	Average Opacity_1 %	Period Start	Average Opacity_1 %
2/13/2002 13:44	3.9	2/13/2002 14:26	3.8
2/13/2002 13:45	4	2/13/2002 14:27	4.4
2/13/2002 13:46	3.9	2/13/2002 14:28	4
2/13/2002 13:47	4.2	2/13/2002 14:29	4
2/13/2002 13:48	3.8	2/13/2002 14:30	3.9
2/13/2002 13:49	3.7	2/13/2002 14:31	4.1
2/13/2002 13:50	3.6	2/13/2002 14:32	4
2/13/2002 13:51	3.5	2/13/2002 14:33	4
2/13/2002 13:52	3.8	2/13/2002 14:34	4.5
2/13/2002 13:53	3.6	2/13/2002 14:35	4.4
2/13/2002 13:54	3.8	2/13/2002 14:36	3.9
2/13/2002 13:55	3.9	2/13/2002 14:37	4.1
2/13/2002 13:56	3.7	2/13/2002 14:38	4.1
2/13/2002 13:57	4.4	2/13/2002 14:39	3.9
2/13/2002 13:58	3.6	2/13/2002 14:40	3.9
2/13/2002 13:59	3.5	2/13/2002 14:41	3.8
2/13/2002 14:00	3.4	2/13/2002 14:42	3.9
2/13/2002 14:01	3.5	2/13/2002 14:43	3.6
2/13/2002 14:02	3.6	2/13/2002 14:44	3.7
2/13/2002 14:03	3.5	2/13/2002 14:45	3.9
2/13/2002 14:04	3.5	2/13/2002 14:46	3.9
2/13/2002 14:05	3.7	2/13/2002 14:47	3.7
2/13/2002 14:06	3.9	2/13/2002 14:48	3.7
2/13/2002 14:07	4	<b>Final Average*</b>	4.2
2/13/2002 14:08	3.6	<b>Maximum*</b>	22.3
2/13/2002 14:09	3.5	<b>Minimum*</b>	3.4
2/13/2002 14:10	3.4		
2/13/2002 14:11	3.5		
2/13/2002 14:12	3.5		
2/13/2002 14:13	3.6		
2/13/2002 14:14	3.6		
2/13/2002 14:15	3.5		
2/13/2002 14:16	22.3		
2/13/2002 14:17	7.8		
2/13/2002 14:18	5.2		
2/13/2002 14:19	4.5		
2/13/2002 14:20	4.3		
2/13/2002 14:21	4.1		
2/13/2002 14:22	4.2		
2/13/2002 14:23	4.3		
2/13/2002 14:24	4.2		
2/13/2002 14:25	4		

\*Does not include Invalid Averaging Periods ("N/A")

GE Energy Services NetDAHS©  
Average Values Report  
Generated: 04/07/05 13:19

Company: Okeelanta CoGen  
Plant:  
City/St: South Bay, FL  
Source: Stack 2

Period Start: 02/14/02 09:35  
Period End: 02/14/02 10:39  
Validation Type: 1/1 min  
Averaging Period: 1 min  
Type: Block Avg

Period Start	Average Opacity_1 %	Period Start	Average Opacity_1 %
2/14/2002 9:35	4.8	2/14/2002 10:17	4.8
2/14/2002 9:36	5	2/14/2002 10:18	5
2/14/2002 9:37	4.6	2/14/2002 10:19	5.5
2/14/2002 9:38	5.2	2/14/2002 10:20	5
2/14/2002 9:39	4.8	2/14/2002 10:21	5.1
2/14/2002 9:40	4.7	2/14/2002 10:22	5.3
2/14/2002 9:41	5.1	2/14/2002 10:23	4.7
2/14/2002 9:42	4.7	2/14/2002 10:24	5.6
2/14/2002 9:43	4.6	2/14/2002 10:25	5.3
2/14/2002 9:44	4.5	2/14/2002 10:26	4.8
2/14/2002 9:45	4.7	2/14/2002 10:27	5.1
2/14/2002 9:46	4.8	2/14/2002 10:28	5.1
2/14/2002 9:47	4.8	2/14/2002 10:29	5.1
2/14/2002 9:48	4.8	2/14/2002 10:30	5.1
2/14/2002 9:49	4.8	2/14/2002 10:31	5.4
2/14/2002 9:50	5	2/14/2002 10:32	5.3
2/14/2002 9:51	5.5	2/14/2002 10:33	5.4
2/14/2002 9:52	5.2	2/14/2002 10:34	5.3
2/14/2002 9:53	4.9	2/14/2002 10:35	4.8
2/14/2002 9:54	5.1	2/14/2002 10:36	5.5
2/14/2002 9:55	5.4	2/14/2002 10:37	5.4
2/14/2002 9:56	6.3	2/14/2002 10:38	5.4
2/14/2002 9:57	5.7	2/14/2002 10:39	3.7
2/14/2002 9:58	5.3	<b>Final Average*</b>	5.1
2/14/2002 9:59	5	<b>Maximum*</b>	6.3
2/14/2002 10:00	4.7	<b>Minimum*</b>	4.5
2/14/2002 10:01	5.1		
2/14/2002 10:02	5.1		
2/14/2002 10:03	4.8		
2/14/2002 10:04	5.4		
2/14/2002 10:05	5		
2/14/2002 10:06	5.2		
2/14/2002 10:07	5.7		
2/14/2002 10:08	5.2		
2/14/2002 10:09	5.3		
2/14/2002 10:10	5.2		
2/14/2002 10:11	5.4		
2/14/2002 10:12	6.1		
2/14/2002 10:13	5.1		
2/14/2002 10:14	5		
2/14/2002 10:15	4.7		
2/14/2002 10:16	4.8		

\*Does not include Invalid Averaging Periods ("N/A")

## GE Energy Services NetDAHS©

## Average Values Report

Generated: 04/07/05 13:20

Company: Okeelanta CoGen  
 Plant:  
 City/St: South Bay, FL  
 Source: Stack 2

Period Start: 02/14/02 11:10  
 Period End: 02/14/02 12:15  
 Validation Type: 1/1 min  
 Averaging Period: 1 min  
 Type: Block Avg

Period Start		Average Opacity_1 %	Period Start		Average Opacity_1 %
2/14/2002	11:10	4.5	2/14/2002	11:52	4
2/14/2002	11:11	4.3	2/14/2002	11:53	3.9
2/14/2002	11:12	4.1	2/14/2002	11:54	4.1
2/14/2002	11:13	4.3	2/14/2002	11:55	4.1
2/14/2002	11:14	4.1	2/14/2002	11:56	4.1
2/14/2002	11:15	5.4	2/14/2002	11:57	4
2/14/2002	11:16	4.2	2/14/2002	11:58	3.9
2/14/2002	11:17	4.3	2/14/2002	11:59	4.1
2/14/2002	11:18	4.2	2/14/2002	12:00	4.2
2/14/2002	11:19	4.3	2/14/2002	12:01	4.5
2/14/2002	11:20	4	2/14/2002	12:02	4.1
2/14/2002	11:21	4.2	2/14/2002	12:03	4
2/14/2002	11:22	4	2/14/2002	12:04	3.9
2/14/2002	11:23	3.9	2/14/2002	12:05	4
2/14/2002	11:24	3.8	2/14/2002	12:06	4.2
2/14/2002	11:25	4.1	2/14/2002	12:07	4.4
2/14/2002	11:26	4.7	2/14/2002	12:08	4.2
2/14/2002	11:27	4.3	2/14/2002	12:09	4.1
2/14/2002	11:28	3.9	2/14/2002	12:10	4.4
2/14/2002	11:29	4	2/14/2002	12:11	4
2/14/2002	11:30	4.2	2/14/2002	12:12	4
2/14/2002	11:31	4.2	2/14/2002	12:13	4.2
2/14/2002	11:32	4.1	2/14/2002	12:14	4.3
2/14/2002	11:33	4.3	2/14/2002	12:15	4.3
2/14/2002	11:34	4	<b>Final Average*</b>		4.3
2/14/2002	11:35	4	<b>Maximum*</b>		9.9
2/14/2002	11:36	4	<b>Minimum*</b>		3.8
2/14/2002	11:37	4.2			
2/14/2002	11:38	4.5			
2/14/2002	11:39	4.1			
2/14/2002	11:40	4.2			
2/14/2002	11:41	6.7			
2/14/2002	11:42	4.3			
2/14/2002	11:43	9.9			
2/14/2002	11:44	4.7			
2/14/2002	11:45	4.1			
2/14/2002	11:46	4.1			
2/14/2002	11:47	4			
2/14/2002	11:48	4.1			
2/14/2002	11:49	4.1			
2/14/2002	11:50	3.9			
2/14/2002	11:51	3.9			

\*Does not include Invalid Averaging Periods ("N/A")

GE Energy Services NetDAHS©  
Average Values Report  
Generated: 04/07/05 13:20

Company: Okeelanta CoGen	Period Start: 02/14/02	12:49
Plant:	Period End: 02/14/02	13:54
City/St: South Bay, FL	Validation Type: 1/1 min	
Source: Stack 2	Averaging Period: 1 min	
	Type: Block Avg	

<b>Period Start</b>	<b>Average Opacity_1 %</b>	<b>Period Start</b>	<b>Average Opacity_1 %</b>
2/14/2002 12:49	4.1	2/14/2002 13:31	4
2/14/2002 12:50	4.1	2/14/2002 13:32	3.8
2/14/2002 12:51	4	2/14/2002 13:33	3.5
2/14/2002 12:52	4.2	2/14/2002 13:34	4.1
2/14/2002 12:53	4.9	2/14/2002 13:35	4.1
2/14/2002 12:54	4.2	2/14/2002 13:36	5.2
2/14/2002 12:55	4	2/14/2002 13:37	4.8
2/14/2002 12:56	4.1	2/14/2002 13:38	3.9
2/14/2002 12:57	4	2/14/2002 13:39	3.8
2/14/2002 12:58	4.1	2/14/2002 13:40	3.9
2/14/2002 12:59	4	2/14/2002 13:41	4
2/14/2002 13:00	3.9	2/14/2002 13:42	3.8
2/14/2002 13:01	3.8	2/14/2002 13:43	4.1
2/14/2002 13:02	3.6	2/14/2002 13:44	3.7
2/14/2002 13:03	3.6	2/14/2002 13:45	3.7
2/14/2002 13:04	3.6	2/14/2002 13:46	3.7
2/14/2002 13:05	3.8	2/14/2002 13:47	3.6
2/14/2002 13:06	3.9	2/14/2002 13:48	3.8
2/14/2002 13:07	3.7	2/14/2002 13:49	3.5
2/14/2002 13:08	3.6	2/14/2002 13:50	3.5
2/14/2002 13:09	3.7	2/14/2002 13:51	3.6
2/14/2002 13:10	3.8	2/14/2002 13:52	3.7
2/14/2002 13:11	3.8	2/14/2002 13:53	3.7
2/14/2002 13:12	3.6	2/14/2002 13:54	4.3
2/14/2002 13:13	3.5	<b>Final Average*</b>	3.8
2/14/2002 13:14	3.5	<b>Maximum*</b>	5.2
2/14/2002 13:15	3.6	<b>Minimum*</b>	3.5
2/14/2002 13:16	3.6		
2/14/2002 13:17	3.6		
2/14/2002 13:18	3.9		
2/14/2002 13:19	3.8		
2/14/2002 13:20	3.6		
2/14/2002 13:21	3.7		
2/14/2002 13:22	3.7		
2/14/2002 13:23	3.6		
2/14/2002 13:24	3.6		
2/14/2002 13:25	3.5		
2/14/2002 13:26	3.6		
2/14/2002 13:27	3.6		
2/14/2002 13:28	3.7		
2/14/2002 13:29	3.7		
2/14/2002 13:30	3.9		

\*Does not include Invalid Averaging Periods ("N/A")

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Average Values Report  
Generated: 04/07/05 13:24

Company: Okeelanta CoGen  
Plant:  
City/St: South Bay, FL  
Source: Stack 3

Period Start: 02/12/02 10:14  
Period End: 02/12/02 11:19  
Validation Type: 1/1 min  
Averaging Period: 1 min  
Type: Block Avg

Period Start	Average Opacity_1 %	Period Start	Average Opacity_1 %
2/12/2002 10:14	3.7	2/12/2002 10:56	4.8
2/12/2002 10:15	3.8	2/12/2002 10:57	4.6
2/12/2002 10:16	3.9	2/12/2002 10:58	4.4
2/12/2002 10:17	3.8	2/12/2002 10:59	4.4
2/12/2002 10:18	3.6	2/12/2002 11:00	4.4
2/12/2002 10:19	3.6	2/12/2002 11:01	4.5
2/12/2002 10:20	3.6	2/12/2002 11:02	4.2
2/12/2002 10:21	3.6	2/12/2002 11:03	4.1
2/12/2002 10:22	3.5	2/12/2002 11:04	3.9
2/12/2002 10:23	3.6	2/12/2002 11:05	4.2
2/12/2002 10:24	3.6	2/12/2002 11:06	4
2/12/2002 10:25	3.6	2/12/2002 11:07	4
2/12/2002 10:26	3.7	2/12/2002 11:08	4
2/12/2002 10:27	3.6	2/12/2002 11:09	4.1
2/12/2002 10:28	3.6	2/12/2002 11:10	3.9
2/12/2002 10:29	3.8	2/12/2002 11:11	3.9
2/12/2002 10:30	3.6	2/12/2002 11:12	3.9
2/12/2002 10:31	3.7	2/12/2002 11:13	3.8
2/12/2002 10:32	3.8	2/12/2002 11:14	4.2
2/12/2002 10:33	4	2/12/2002 11:15	4
2/12/2002 10:34	3.7	2/12/2002 11:16	3.9
2/12/2002 10:35	6.5	2/12/2002 11:17	3.8
2/12/2002 10:36	4.5	2/12/2002 11:18	4
2/12/2002 10:37	4.2	2/12/2002 11:19	3.9
2/12/2002 10:38	4	<b>Final Average*</b>	5.1
2/12/2002 10:39	4.2	<b>Maximum*</b>	45.5
2/12/2002 10:40	4.2	<b>Minimum*</b>	3.5
2/12/2002 10:41	45.5		
2/12/2002 10:42	14.1		
2/12/2002 10:43	9.7		
2/12/2002 10:44	7.6		
2/12/2002 10:45	6.7		
2/12/2002 10:46	6.5		
2/12/2002 10:47	5.7		
2/12/2002 10:48	5.6		
2/12/2002 10:49	5.3		
2/12/2002 10:50	5		
2/12/2002 10:51	5		
2/12/2002 10:52	5.1		
2/12/2002 10:53	4.7		
2/12/2002 10:54	4.5		
2/12/2002 10:55	4.8		

\*Does not include Invalid Averaging Periods ("N/A")



GE Energy Services NetDAHS©  
Average Values Report  
Generated: 04/07/05 13:25

Company: Okeelanta CoGen  
Plant:  
City/St: South Bay, FL  
Source: Stack 3

Period Start: 02/12/02 12:35  
Period End: 02/12/02 13:39  
Validation Type: 1/1 min  
Averaging Period: 1 min  
Type: Block Avg

Average Opacity_1		Average Opacity_1	
Period Start	%	Period Start	%
2/12/2002 12:35	3	2/12/2002 13:17	3.4
2/12/2002 12:36	2.9	2/12/2002 13:18	3.3
2/12/2002 12:37	3	2/12/2002 13:19	3.2
2/12/2002 12:38	3	2/12/2002 13:20	3.3
2/12/2002 12:39	3.1	2/12/2002 13:21	3.1
2/12/2002 12:40	3	2/12/2002 13:22	3
2/12/2002 12:41	3	2/12/2002 13:23	3.4
2/12/2002 12:42	2.9	2/12/2002 13:24	3.2
2/12/2002 12:43	2.9	2/12/2002 13:25	3.1
2/12/2002 12:44	2.8	2/12/2002 13:26	3
2/12/2002 12:45	2.7	2/12/2002 13:27	3.2
2/12/2002 12:46	3	2/12/2002 13:28	3.1
2/12/2002 12:47	2.9	2/12/2002 13:29	3.1
2/12/2002 12:48	3	2/12/2002 13:30	3.1
2/12/2002 12:49	3.1	2/12/2002 13:31	3
2/12/2002 12:50	3.1	2/12/2002 13:32	3.2
2/12/2002 12:51	3.1	2/12/2002 13:33	3
2/12/2002 12:52	3	2/12/2002 13:34	3.3
2/12/2002 12:53	3	2/12/2002 13:35	3.3
2/12/2002 12:54	2.9	2/12/2002 13:36	3.2
2/12/2002 12:55	3.1	2/12/2002 13:37	3.1
2/12/2002 12:56	3	2/12/2002 13:38	3.2
2/12/2002 12:57	3.1	2/12/2002 13:39	3.3
2/12/2002 12:58	3	<b>Final Average*</b>	3.1
2/12/2002 12:59	3	<b>Maximum*</b>	3.5
2/12/2002 13:00	3.1	<b>Minimum*</b>	2.7
2/12/2002 13:01	3.2		
2/12/2002 13:02	3		
2/12/2002 13:03	3		
2/12/2002 13:04	3		
2/12/2002 13:05	2.9		
2/12/2002 13:06	3.4		
2/12/2002 13:07	3.5		
2/12/2002 13:08	3.3		
2/12/2002 13:09	3.3		
2/12/2002 13:10	3.5		
2/12/2002 13:11	3.3		
2/12/2002 13:12	3.3		
2/12/2002 13:13	3.4		
2/12/2002 13:14	3.3		
2/12/2002 13:15	3.4		
2/12/2002 13:16	3.2		

\*Does not include Invalid Averaging Periods ("N/A")

GE Energy Services NetDAHS©  
Average Values Report  
Generated: 04/07/05 13:27

Company: Okeelanta CoGen	Period Start: 02/12/02	14:11
Plant:	Period End: 02/12/02	15:15
City/St: South Bay, FL	Validation Type: 1/1 min	
Source: Stack 3	Averaging Period: 1 min	
	Type: Block Avg	

<u>Period Start</u>	<u>Average Opacity_1 %</u>	<u>Period Start</u>	<u>Average Opacity_1 %</u>		
2/12/2002	14:11	3.1	2/12/2002	14:53	3.7
2/12/2002	14:12	2.8	2/12/2002	14:54	3.8
2/12/2002	14:13	3	2/12/2002	14:55	3.8
2/12/2002	14:14	2.8	2/12/2002	14:56	3.7
2/12/2002	14:15	2.8	2/12/2002	14:57	4
2/12/2002	14:16	2.8	2/12/2002	14:58	3.6
2/12/2002	14:17	2.8	2/12/2002	14:59	3.6
2/12/2002	14:18	2.9	2/12/2002	15:00	3.7
2/12/2002	14:19	2.9	2/12/2002	15:01	3.9
2/12/2002	14:20	2.9	2/12/2002	15:02	3.9
2/12/2002	14:21	3	2/12/2002	15:03	3.8
2/12/2002	14:22	2.7	2/12/2002	15:04	3.6
2/12/2002	14:23	2.8	2/12/2002	15:05	3.8
2/12/2002	14:24	2.8	2/12/2002	15:06	4.3
2/12/2002	14:25	3.1	2/12/2002	15:07	4
2/12/2002	14:26	3	2/12/2002	15:08	4.1
2/12/2002	14:27	3.1	2/12/2002	15:09	4.2
2/12/2002	14:28	3.1	2/12/2002	15:10	4
2/12/2002	14:29	2.9	2/12/2002	15:11	3.9
2/12/2002	14:30	2.8	2/12/2002	15:12	4.1
2/12/2002	14:31	3	2/12/2002	15:13	4.3
2/12/2002	14:32	2.8	2/12/2002	15:14	4.2
2/12/2002	14:33	3.1	2/12/2002	15:15	4.2
2/12/2002	14:34	3.2	<b>Final Average*</b>		3.4
2/12/2002	14:35	3.3	<b>Maximum*</b>		4.3
2/12/2002	14:36	3	<b>Minimum*</b>		2.7
2/12/2002	14:37	3.1			
2/12/2002	14:38	3.4			
2/12/2002	14:39	3.5			
2/12/2002	14:40	3.3			
2/12/2002	14:41	3.3			
2/12/2002	14:42	3.1			
2/12/2002	14:43	3.5			
2/12/2002	14:44	3.2			
2/12/2002	14:45	3.4			
2/12/2002	14:46	3.5			
2/12/2002	14:47	3.7			
2/12/2002	14:48	3.2			
2/12/2002	14:49	3.5			
2/12/2002	14:50	3.7			
2/12/2002	14:51	3.6			
2/12/2002	14:52	3.7			

\*Does not include Invalid Averaging Periods ("N/A")