#### Golder Associates Inc.

6241 NW 23rd Street, Suite 500 Gainesville, FL USA 32653 Telephone (352) 336-5600 Fax (352) 336-6603 www.golder.com



May 25, 2006

BUREAU OF AIR REGULATION

0637539

Florida Department of Environmental Protection Division of Air Resources Management @ 2600 Blair Stone Road, MS #5505 Tallahassee, FL 32399-2400

Attention: Mr. Jeff Koerner, P.E., Air Permitting North

RE:

OKEELANTA CORPORATION

TITLE V PERMIT REVISION APPLICATION

PERMIT NO. 0990005-018-AC FOR BOILER NO. 16

Dear Mr. Koerner:

Please find enclosed four (4) copies of a Title V operating permit revision application for Okeelanta Corporation to incorporate the provisions of air construction permit no. 0990005-018-AC for Boiler No. 16. Thank you for consideration of this application. If you have any questions, please do not hesitate to call me at (352)336-5600.

Sincerely,

GOLDER ASSOCIATES INC.

David a. buff

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

Principal Engineer

DB/nav

Enclosures

cc:

Bill Tarr, Florida Crystals Matt Capone, Okeelanta A.J. Satyal, PBCHU

R. Blackburn, FDEP South District

Y:\Projects\2006\0637539 Okeelanta TV\4.1\L052506.doc





# APPLICATION FOR REVISION OF TITLE V AIR OPERATION PERMIT FOR OKEELANTA BOILER NO. 16

**OKEELANTA CORPORATION** 

Prepared For: Okeelanta Corporation 21250 U.S. Highway 27 South South Bay, Florida 33493

Prepared By: Golder Associates Inc. 6241 NW 23rd Street, Suite 500 Gainesville, Florida 32653-1500

> May 2006 0637539

#### **DISTRIBUTION:**

- 5 Copies FDEP
- 2 Copies Okeelanta Corporation
- 2 Copies Golder Associates Inc.



# Department of Environmental Protection

# Division of Air Resource Management

#### APPLICATION FOR AIR PERMIT - LONG FORM

#### I. APPLICATION INFORMATION

- Air Construction Permit Use this form to apply for an air construction permit at a facility operating under a federally enforceable state air operation permit (FESOP) or Title V air permit. Also use this form to apply for an air construction permit:
- For a proposed project subject to prevention of significant deterioration (PSD) review, nonattainment area (NAA) new source review, or maximum achievable control technology (MACT) review; or
- Where the applicant proposes to assume a restriction on the potential emissions of one or more pollutants to escape a federal program requirement such as PSD review, NAA new source review, Title V, or MACT; or
- Where the applicant proposes to establish, revise, or renew a plantwide applicability limit (PAL).

#### **Air Operation Permit** – Use this form to apply for:

- an initial federally enforceable state air operation permit (FESOP); or
- an initial/revised/renewal Title V air operation permit.

Air Construction Permit & Title V Air Operation Permit (Concurrent Processing Option) – Use this form to apply for both an air construction permit and a revised or renewal Title V air operation permit incorporating the proposed project.

To ensure accuracy, please see form instructions.

#### **Identification of Facility** 1. Facility Owner/Company Name: Okeelanta Corporation Site Name: Okeelanta Sugar Mill 3. Facility Identification Number: 0990005 4. Facility Location...: Street Address or Other Locator: 21250 U.S. Highway 27 South City: South Bay County: Palm Beach Zip Code: **33493** 5. Relocatable Facility? 6. Existing Title V Permitted Facility? ⊠ Yes ∏ Yes ⊠ No □ No **Application Contact**

1.	Application	Contact Name: Matthew	/ Capone, [	Directo	or of Environmental Programs	
2.	Application Contact Mailing Address					
	Organization/Firm: Okeelanta Corporation					
	Street Ad	ddress: 21250 U.S. High	wa <u>y</u> 27			
		City: South Bay	State:	FL	Zip Code: <b>33493</b>	
3.	Application	Contact Telephone Nun	nbers		·	
	Telephone:	(561) 993-1658	ext.	Fax:	(561) 992-7326	
4.	Application	Contact Email Address:	matthew_	capon	e@floridacrystals.com	

#### **Application Processing Information (DEP Use)**

1. Date of Receipt of Application:	3. PSD Number (if applicable):
2. Project Number(s):	4. Siting Number (if applicable):

DEP Form No. 62-210.900(1) – Form Effective: 2/2/06

# **Purpose of Application**

This application for air permit is submitted to obtain: (Check one)
Air Construction Permit  ☐ Air construction permit. ☐ Air construction permit to establish, revise, or renew a plantwide applicability limit (PAL). ☐ Air construction permit to establish, revise, or renew a plantwide applicability limit (PAL), and separate air construction permit to authorize construction or modification of one or more emissions units covered by the PAL.
Air Operation Permit  ☐ Initial Title V air operation permit.  ☐ Title V air operation permit revision.  ☐ Title V air operation permit renewal.  ☐ Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is required.  ☐ Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is not required.
Air Construction Permit and Revised/Renewal Title V Air Operation Permit (Concurrent Processing)  ☐ Air construction permit and Title V permit revision, incorporating the proposed project. ☐ Air construction permit and Title V permit renewal, incorporating the proposed project.
Note: By checking one of the above two boxes, you, the applicant, are requesting concurrent processing pursuant to Rule 62-213.405, F.A.C. In such case, you must also check the following box:   I hereby request that the department waive the processing time requirements of the air construction permit to accommodate the processing time frames of the Title V air operation permit.
Application Comment
The purpose of this application is to revise Title V Permit No. 0990005-012-AV to incorporate the conditions of Air Construction Permit No. 0990005-018-AC for Boiler No. 16.

DEP Form No. 62-210.900(1) – Form Effective: 2/2/06

# **Scope of Application**

Emissions Unit ID Number	Description of Emissions Unit	Air Permit Type	Air Permit Proc. Fee
014	Okeelanta Mill Boiler No. 16		
			·
		· .	
	·		
			·
	·		
	· · ·		
·			
		•	

Application Processing Fee	
Check one: Attached - Amount: \$	

#### Owner/Authorized Representative Statement

Complete if applying for an air construction permit or an initial FESOP. 1. Owner/Authorized Representative Name: 2. Owner/Authorized Representative Mailing Address... Organization/Firm: Street Address: City: State: Zip Code: 3. Owner/Authorized Representative Telephone Numbers... Telephone: ( ext. 4. Owner/Authorized Representative Email Address: 5. Owner/Authorized Representative Statement: I, the undersigned, am the owner or authorized representative of the facility 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 requirements identified in this application to which the facility 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. Signature Date

#### **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 63	responsible official.				
1.	Application Responsible Official Name: Ricardo A. Lima, Vice President and General Manager				
2.	Application Responsible Official Qualification (Check one or more of the following				
	options, as applicable):				
	For a corporation, the president, secretary, treasurer, or vice-president of the corporation in				
	charge of a principal business function, or any other person who performs similar policy or				
	decision-making functions for the corporation, or a duly authorized representative of such				
	person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under				
	Chapter 62-213, F.A.C.				
	For a partnership or sole proprietorship, a general partner or the proprietor, respectively.				
	For a municipality, county, state, federal, or other public agency, either a principal executive				
	officer or ranking elected official.				
	The designated representative at an Acid Rain source.				
3.	Application Responsible Official Mailing Address				
	Organization/Firm: Okeelanta Corporation				
	Street Address: 21250 U.S. Highway 27				
	City: South Bay State: FL Zip Code: 33493				
4.	Application Responsible Official Telephone Numbers				
	Telephone: (561) 993-1600 ext. Fax: (561) 992-7326				
	Application Responsible Official Email Address: ricardo_lima@floridacrystals.com				
6.	Application Responsible Official Certification:				
	I, the undersigned, am a responsible official of the Title V source addressed in this air				
	permit application. I hereby certify, based on information and belief formed after				
	reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this				
	application are based upon reasonable techniques for calculating emissions. The air				
	pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control				
	of air pollutant emissions found in the statutes of the State of Florida and rules of the				
	Department of Environmental Protection and revisions thereof and all other applicable				
	requirements identified in this application to which the Title V source is subject. I				
	understand that a permit, if granted by the department, cannot be transferred without				
	authorization from the department, and I will promptly notify the department upon sale or				
	legal transfer of the facility or any permitted emissions unit. Finally, I certify that the				
	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				
	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				
	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				
	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				

DEP Form No. 62-210.900(1) - Form Effective: 2/2/06

	Ofessional Engineer Certification
1.	Professional Engineer Name: David A. Buff
2	Registration Number: 19011
2.	Professional Engineer Mailing Address  Organization/Firm: Golder Associates Inc.**
	Street Address: 6241 NW 23 <sup>rd</sup> Street, Suite 500
	City: Gainesville State: FL Zip Code: 32653
3.	Professional Engineer Telephone Numbers
	Telephone: (352) 336-5600 ext.545 Fax: (352) 336-6603
4.	Professional Engineer Email Address: dbuff@golder.com
5.	Professional Engineer Statement:
	I, the undersigned, hereby certify, except as particularly noted herein*, that:
	(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this application for air permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and
	(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.
	(3) If the purpose of this application is to obtain a Title V air operation permit (check here $\square$ , 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 $\square$ , 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 $\square$ , 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.
and Control	(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 \(\infty\), if the purpose 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.
	-125 M
,	S Sugaratura Date
200	(seal)
11,	*Attach any Execution to certification statement.  **Board of Professional Engineers Certificate of Authorization #00001670
	EP Form No. 62-210.900(1) – Form 0637539/OK_DB_Okeelanta-Blr10

#### A. GENERAL FACILITY INFORMATION

Facility Location and Type	Facility	Location	and	Type
----------------------------	----------	----------	-----	------

1.	Facility UTM Coordinates			Facility Latitude/Lo	· ·	
	Zone 17 East	(km) <b>524.90</b>		Latitude (DD/MM/	SS)	26°35'00"
	North (km) 2940.10			Longitude (DD/MN	1/SS	S) 80°45'00"
3.	Governmental	4. Facility Status	5.	Facility Major	6.	Facility SIC(s):
	Facility Code:	Code:		Group SIC Code:		2061, 2062, 4911
	0	Α		20	,	
7.	Facility Comment:					4 .
		•				

#### **Facility Contact**

1.	Facility Con Matthew Cap	tact Name: oone, Director of Envir	onment	al Programs		
2.	-	tact Mailing Address.			•	
	Organization	ո/Firm: Okeelanta Cor	poratior	1		
	Street Ac	ldress: <b>21250 U.S. Higl</b>	hway 27	South		
		City: South Bay	,	State: FL	Zip Code: <b>33493</b>	
3.	Facility Con	tact Telephone Numb	ers:			
	Telephone:	(561) 993-1658	ext.	Fax:	(561) 992-7326	
4.	Facility Con	tact Email Address: m	atthew_	_capone@flo	ridacrystals.com	

#### Facility Primary Responsible Official

Complete if an "application responsible official" is identified in Section I. that is not the facility "primary responsible official."

1.	Facility Primary Res	ponsible Official N	lame:	
2.	Facility Primary Res Organization/Firm:	ponsible Official N	Mailing Address	
	Street Address:			
	City:		State:	Zip Code:
3.	Facility Primary Res	ponsible Official T	elephone Numbers	
	Telephone: ( )	- ex	ct. Fax: (	) -
4.	Facility Primary Res	ponsible Official E	Email Address:	_

DEP Form No. 62-210.900(1) – Form Effective: 2/2/06

#### **Facility Regulatory Classifications**

Check all that would apply *following* completion of all projects and implementation of all other changes proposed in this application for air permit. Refer to instructions to distinguish between a "major source" and a "synthetic minor source."

1.	Small Business Stationary Source
2.	Synthetic Non-Title V Source
3. 🛛	Title V Source
4. 🛛	Major Source of Air Pollutants, Other than Hazardous Air Pollutants (HAPs)
5. 🔲	Synthetic Minor Source of Air Pollutants, Other than HAPs
6. 🛛	Major Source of Hazardous Air Pollutants (HAPs)
7. 🗆 :	Synthetic Minor Source of HAPs
8. 🛛	One or More Emissions Units Subject to NSPS (40 CFR Part 60)
9. 🗆 (	One or More Emissions Units Subject to Emission Guidelines (40 CFR Part 60)
10. 🛛	One or More Emissions Units Subject to NESHAP (40 CFR Part 61 or Part 63)
11. 🔲 1	Title V Source Solely by EPA Designation (40 CFR 70.3(a)(5))
12. Faci	ility Regulatory Classifications Comment:

# **List of Pollutants Emitted by Facility**

1. Pollutant Emitted	2. Pollutant Classification	3. Emissions Cap [Y or N]?
Particulate Matter Total - PM	Α	N
Particulate Matter - PM <sub>10</sub>	A	N ·
Sulfur Dioxide - SO <sub>2</sub>	A	N
Nitrogen Oxides - NO <sub>x</sub>	A	N
Carbon Monoxide - CO	А	. N
Volatile Organic Compounds - VOC	А	N
Lead - Pb	В	N
Hydrogen Chloride - H106	A	N
Mercury Compounds - H114	В	. N
Total Hazardous Air Pollutants - HAPs	Α.	. N
·		
		·

# **B. EMISSIONS CAPS**

### Facility-Wide or Multi-Unit Emissions Caps

Subject to Emissions Cap	2. Facility Wide Cap [Y or N]? (all units)	3. Emissions Unit ID No.s Under Cap (if not all units)	4. Hourly Cap (lb/hr)	5. Annual Cap (ton/yr)	6. Basis for Emissions Cap
·					
			,		
					-
,					
				-	-
	-	·			
7. Facility	 -Wide or Multi	 -Unit Emissions Ca	n Comment:		
/. I doming					
,	,au orau.				
Ž					
·	, , , , , , , , , , , , , , , , , , ,	<b>2</b> 2			
	, , , , , , , , , , , , , , , , , , ,	om Simonono es			·
	, , , , , , , , , , , , , , , , , , ,				
	, , , , , , , , , , , , , , , , , , ,			·	
				·	
	· · ·				
				·	
	· ·				
	· ·				
	· ·				
	· ·				

### C. FACILITY ADDITIONAL INFORMATION

# Additional Requirements for All Applications, Except as Otherwise Stated

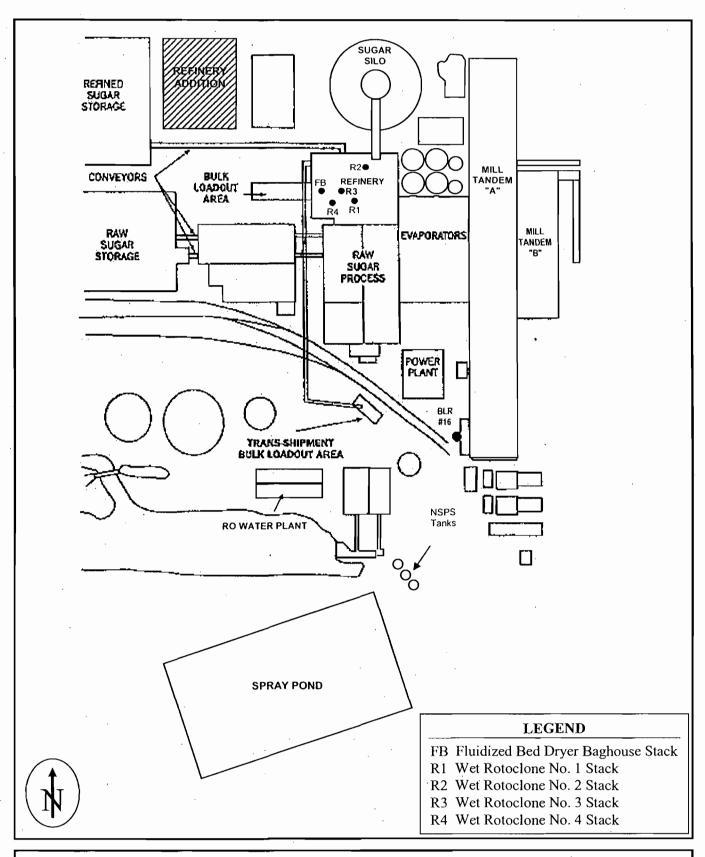
1.	Facility Plot Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)  ✓ Attached, Document ID: OK-FI-C1
2.	Process Flow Diagram(s): (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)  ☑ Attached, Document ID: OK-FI-C2 ☐ Previously Submitted, Date:
3.	Precautions to Prevent Emissions of Unconfined Particulate Matter: (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)  Attached, Document ID: Previously Submitted, Date: May 20, 2005
	Area Map Showing Facility Location:
1.	☐ Attached, Document ID: Not Applicable (existing permitted facility)
2.	Description of Proposed Construction, Modification, or Plantwide Applicability Limit
	(PAL):  ☐ Attached, Document ID:
3	Rule Applicability Analysis:
"	☐ Attached, Document ID:
4.	List of Exempt Emissions Units (Rule 62-210.300(3), F.A.C.):
	Attached, Document ID: Not Applicable (no exempt units at facility)
5.	Fugitive Emissions Identification:  Attached, Document ID: Not Applicable
6.	Air Quality Analysis (Rule 62-212.400(7), F.A.C.):
	☐ Attached, Document ID: ☐ Not Applicable
7.	Source Impact Analysis (Rule 62-212.400(5), F.A.C.):
	Attached, Document ID: Not Applicable
8.	Air Quality Impact since 1977 (Rule 62-212.400(4)(e), F.A.C.):   Not Applicable
9.	Additional Impact Analyses (Rules 62-212.400(8) and 62-212.500(4)(e), F.A.C.):
-	☐ Attached, Document ID: ☐ Not Applicable
10	. Alternative Analysis Requirement (Rule 62-212.500(4)(g), F.A.C.):
	☐ Attached, Document ID: ☐ Not Applicable

DEP Form No. 62-210.900(1) – Form Effective: 2/2/06

# Additional Requirements for FESOP Applications 1. List of Exempt Emissions Units (Rule 62-210.300(3)(a) or (b)1., F.A.C.): ☐ Attached, Document ID: ☐ Not Applicable (no exempt units at facility) Additional Requirements for Title V Air Operation Permit Applications 1. List of Insignificant Activities (Required for initial/renewal applications only): Attached, Document ID: 2. Identification of Applicable Requirements (Required for initial/renewal applications, and for revision applications if this information would be changed as a result of the revision being sought): ☐ Attached, Document ID: Not Applicable (revision application with no change in applicable requirements) 3. Compliance Report and Plan (Required for all initial/revision/renewal applications): Note: A compliance plan must be submitted for each emissions unit that is not in compliance with all applicable requirements at the time of application and/or at any time during application processing. The department must be notified of any changes in compliance status during application processing. 4. List of Equipment/Activities Regulated under Title VI (If applicable, required for initial/renewal applications only): ☐ Attached, Document ID:\_\_\_\_ ☐ Equipment/Activities On site but Not Required to be Individually Listed 5. Verification of Risk Management Plan Submission to EPA (If applicable, required for initial/renewal applications only): Attached, Document ID: 6. Requested Changes to Current Title V Air Operation Permit: ☐ Attached, Document ID:\_ **Additional Requirements Comment**

ATTACHMENT OK-FI-C1

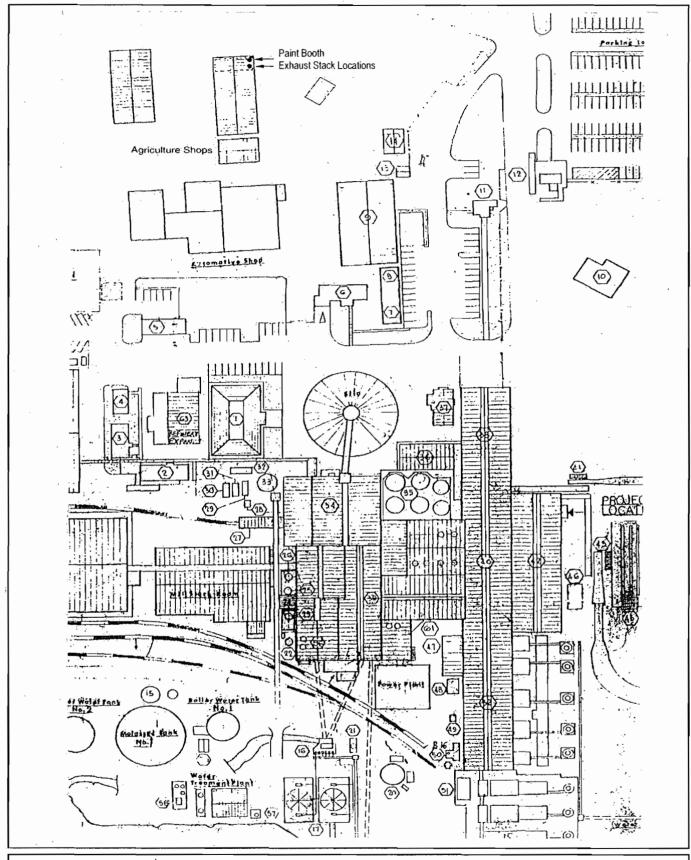
FACILITY PLOT PLAN



Attachment OK-FI-C1a
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 0637539/4.4/OK-FI-C1a  $\dot{}$ 



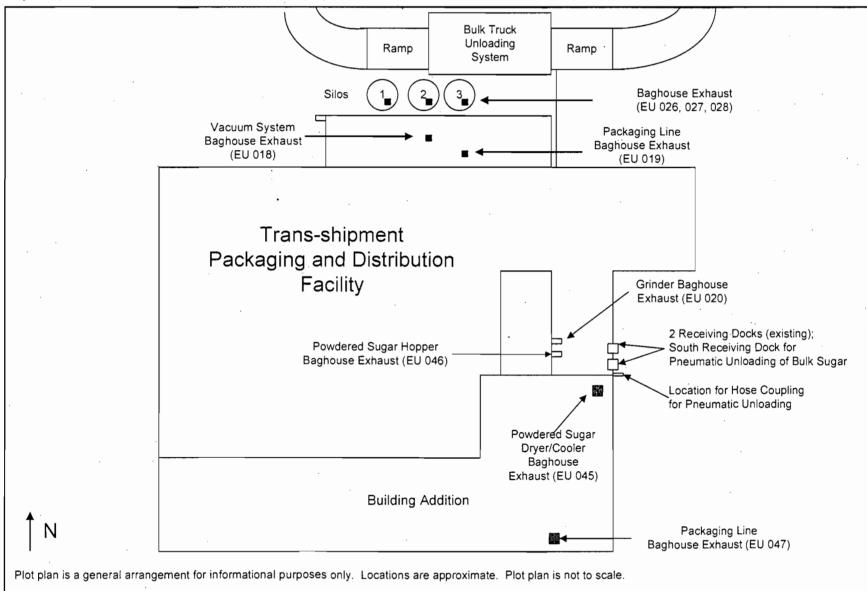


Attachment OK-FI-C1b
Facility Plot Plan, including Paint Booth

Source: Golder, 2005. 0637539/4.4/OK-FI-C1b



May 2006

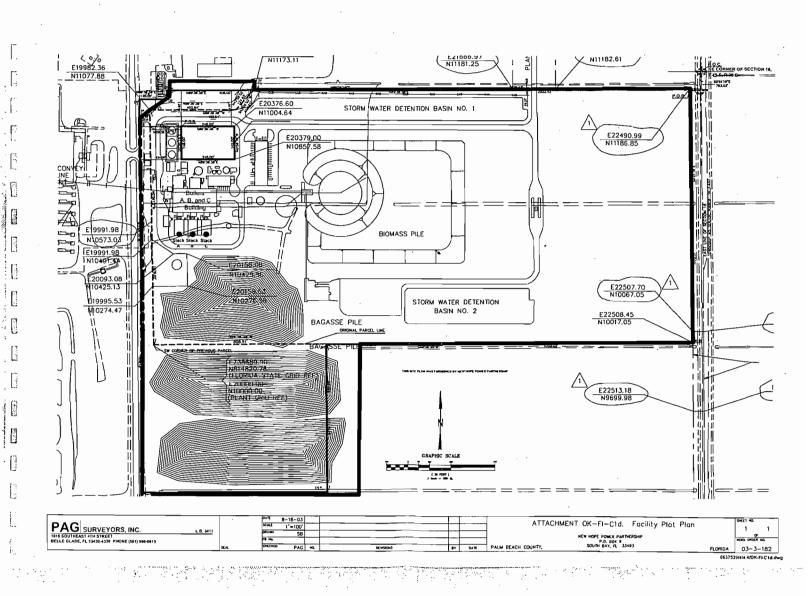


Attachment OK-FI-C1c
Trans-shipment Packaging and Distribution
Facility Plot Plan
Okeelanta Corporation



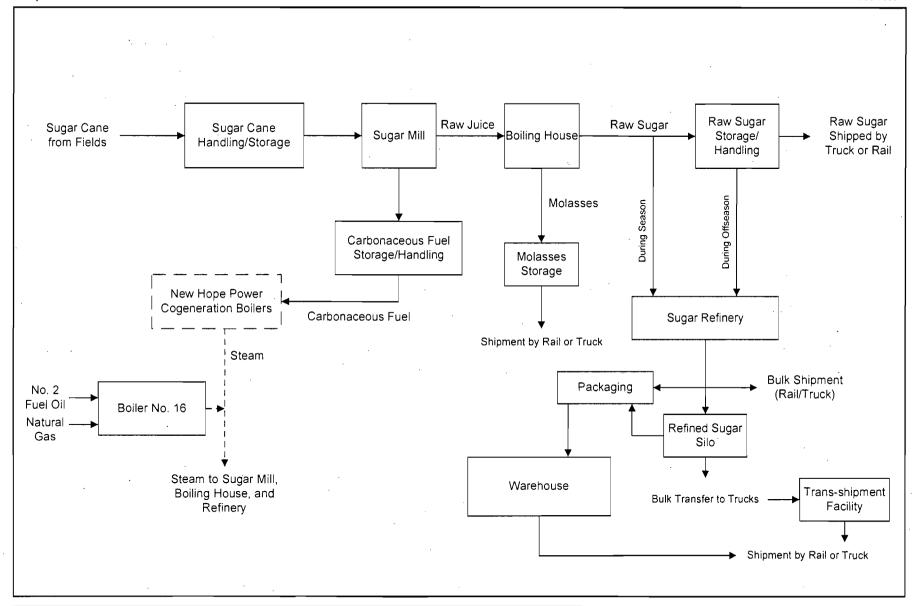
063-7539

# **Best Available Copy**



**ATTACHMENT OK-FI-C2** 

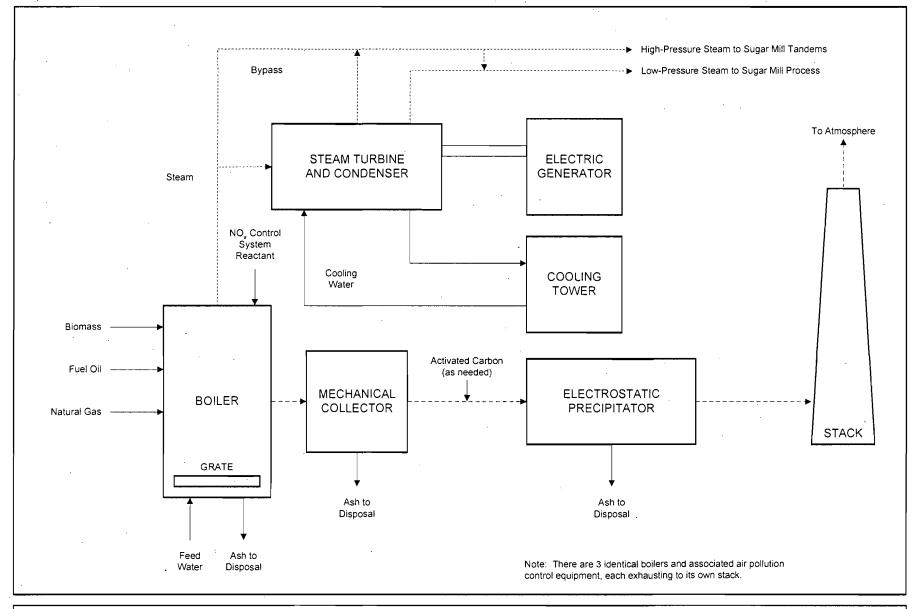
PROCESS FLOW DIAGRAM



Attachment OK-FI-C2a Sugar Manufacturing Process Flow Diagram Okeelanta Corporation South Bay, FL Overall Sugar Mill - Facility Flow Diagram

Process Flow Legend
Solid/Liquid
Steam
Gas





Attachment OK-FI-C2b Simplified Flow Diagram New Hope Power Partnership Cogeneration Facility South Bay, FL

Process Flo	w Legend
Solid/Liquid	<b></b>
Steam	•••••
Gas	



ATTACHMENT OK-FI-CV3

COMPLIANCE REPORT AND PLAN

#### ATTACHMENT OK-FI-CV3

#### COMPLIANCE REPORT AND PLAN

Okeelanta Corporation certifies that the Okeelanta sugar mill, refinery, and trans-shipment facilities, as of the date of this application, is in compliance with each applicable requirement addressed in this Title V air permit revision application except for the items presented in the Compliance Report and Plan in Attachment OK-FI-CV3a.

I, the undersigned, am the responsible official as defined in Chapter 62-213, F.A.C., of the Title V source for which this report is being submitted. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made and data contained in this report are true, accurate, and complete.

Compliance statements for this facility will be submitted on an annual basis to FDEP, before March 1st of each year.

Matile Copin for K.a. Lima Signature, Responsible Official

5/25/2006

#### ATTACHMENT OK-FI-CV3a

# COMPLIANCE REPORT AND PLAN FOR OKEELANTA CORPORATION

Mill Boiler No. 16 (EU 014)

#### A. INITIAL NO<sub>x</sub> AND OPACITY TESTING

May 2006

#### **Deviations from Applicable Requirements**

The new construction permit was issued on April 12, 2006 that reduced the annual operation of Boiler No. 16 to no more than 10 percent annual capacity, thereby eliminating the need for a continuous emissions monitoring system (CEMS) for NO<sub>x</sub> (Permit No. 0990005-018-AC). Specific Condition No. III.A.9 of this permit requires that initial NO<sub>x</sub> emissions and opacity compliance testing be conducted while burning natural gas and while burning distillate fuel oil. Testing is required to be conducted within 12 months of issuance of the permit (i.e., by April 12, 2007).

Okeelanta has not operated the boiler since the permit was issued on April 12, 2006, and has no immediate plans to operate the boiler. Therefore, NOx emissions and opacity testing has not been conducted on the boiler.

#### Compliance Plan

Okeelanta has no immediate plans to operate the boiler. However, if and when Okeelanta does first operate the boiler, Okeelanta proposes to conduct initial compliance testing within 60 days of initially operating the boiler on a particular fuel type. It is also possible that Okeelanta will not operate the boiler within the first 12 months after the permit issuance. Therefore, we request that Specific Condition II.A.9 be revised to require that initial NOx and opacity testing on natural gas be required within 60 days of first operating the boiler on natural gas, and initial NOx and opacity testing on distillate oil be required within 60 days of first operating the boiler on distillate fuel oil.

#### B. FUEL OIL SAMPLING

#### **Deviations from Applicable Requirements**

Specific Condition No. III.A.10 of permit No. 0990005-018-AC requires that an initial fuel oil sample be taken from the fuel oil storage tanks serving Boiler No. 16. The sample is to be analyzed for fuel sulfur, and reported with the initial emissions compliance test report. Okeelanta has not performed the required sampling and analysis because there have been no fuel oil deliveries of No. 2 oil since the construction permit was issued on April 12, 2006, and no fuel oil has been fired in the boiler since that time. There currently remains only about 5,000 gallons of distillate oil in the tanks from previous operation of the boiler.

#### Compliance Plan

In order to comply with the permit requirement for testing of the fuel oil, Okeelanta will perform the required sampling prior to burning any fuel oil in Boiler No. 16. The analysis results will be submitted to the Department no later than 30 days after commencing operation of Boiler No. 16 on oil.

Section [1] Mill Boiler No. 16

#### 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.

DEP Form No. 62-210.900(1) – Form Effective: 02/02/06

Section [1] Mill Boiler No. 16

#### 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.)				
·	<ul> <li>☑ The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.</li> <li>☐ The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.</li> </ul>				
<u>En</u>	nissions Unit	Description and Sta	<u>itus</u>		
1.	Type of Emis	ssions Unit Addresse	d in this Sectio	n: (Check one)	
	process o		activity, which	lresses, as a single em produces one or more int (stack or vent).	
	process o		nd activities wh	ich has at least one de	issions unit, a group of finable emission point
				lresses, as a single em es which produce fug	
2.	Description of Emissions Unit Addressed in this Section:     Mill Boiler No. 16				
3.	Emissions U	nit Identification Nu	mber: <b>014</b>		N
4.	Emissions Unit Status Code: A	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code: 20	8. Acid Rain Unit? ☐ Yes ☑ No
9.	9. Package Unit: Manufacturer: Babcock and Wilcox Model Number: FM 120-97				
10.	10. Generator Nameplate Rating: MW				
11. Emissions Unit Comment: Package Boiler equipped with Low-NO <sub>x</sub> burners for No. 2 distillate fuel oil and natural gas. This unit is designed for approximately 15-percent flue gas recirculation.					

DEP Form No. 62-210.900(1) – Form Effective: 02/02/06

Section [1] Mill Boiler No. 16

# **Emissions Unit Control Equipment**

1.	Control Equipment/Method(s) Description:
	Low-NO <sub>x</sub> Burners
	Flue gas recirculation
2.	Control Device or Method Code(s): 205, 026

Section [1] Mill Boiler No. 16

#### **B. EMISSIONS UNIT CAPACITY INFORMATION**

(Optional for unregulated emissions units.)

# **Emissions Unit Operating Capacity and Schedule**

DEP Form No. 62-210.900(1) – Form Effective: 02/02/06

Section [1] Mill Boiler No. 16

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

## **Emission Point Description and Type**

Identification of Point on Plot Plan or Flow Diagram: BLR 16		2. Emission Point 7	Type Code:	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking:				
4. ID Numbers or Description	ons of Emission Ur	nits with this Emissio	n Point in Common:	
		· .		
5. Discharge Type Code: <b>v</b>	6. Stack Height 75 feet	:	7. Exit Diameter: 5.0 feet	
8. Exit Temperature: 393 °F	9. Actual Volum 118,600 acfn	netric Flow Rate:	10. Water Vapor: 9 %	
11. Maximum Dry Standard dscfm	Flow Rate:	12. Nonstack Emiss feet	ion Point Height:	
13. Emission Point UTM Coo Zone: East (km):		14. Emission Point Latitude/Longitude Latitude (DD/MM/SS)		
North (km	):	Longitude (DD/	MM/SS)	
15. Emission Point Comment		· · · · · · · · · · · · · · · · · · ·		
Stack parameters are based on 2001 stack test data.				
	•			
		·		
·			•	
·				

Section [1] Mill Boiler No. 16

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

# Segment Description and Rate: Segment 1 of 2

·1.	1. Segment Description (Process/Fuel Type):				
	External Combustion Boilers; Industrial; Distillate Oil; Grades 1 and 2 Oil				
	•	•			
			,		
			Γ		
2.	Source Classification Code (SCC):  1-02-005-01  3. SCC Units: 1,000 Gallons Burned			urned	
4.	Maximum Hourly Rate: 1.485	5. Maximum . <b>1,301</b>	Annual Rate:	6.	Estimated Annual Activity Factor:
7.	Maximum % Sulfur: <b>0.05</b>	8. Maximum	% Ash:	9.	Million Btu per SCC Unit: 136
10.	. Segment Comment:			-	
	Based on 202 MMBtu/hr wi capacity factor of 10 perce		uel oil. Maximun	n Anr	nual Rate based on annual
Se	gment Description and Ra	ite: Segment 2 o	of <u>2</u>		
1.	1. Segment Description (Process/Fuel Type):				
External Combustion Boilers; Industrial; Natural Gas; Over 100 MMBtu/hr					
	· · · · · · · · · · · · · · · · · · ·				
2.	Source Classification Code	e (SCC):	3. SCC Units	3:	
	1-02-006-01	· · · · · · · · · · · · · · · · · · ·	Million Cut	oic Fe	eet Burned
4.	Maximum Hourly Rate: 0.207	5. Maximum 181.2	Annual Rate:	6.	Estimated Annual Activity Factor:
7.	Maximum % Sulfur:	8. Maximum	% Ash:	9.	Million Btu per SCC Unit: 1,020
10	. Segment Comment:		,		
	Based on 211 MMBtu/hr wl capacity factor of 10 perce		gas. Maximum	Annı	ual Rate based on annual

Section [1] Mill Boiler No. 16

#### E. EMISSIONS UNIT POLLUTANTS

# List of Pollutants Emitted by Emissions Unit

1. Pollutant Emitted	Primary Control     Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
РМ			NS
PM <sub>10</sub>			NS
SO <sub>2</sub>			EL ·
NO <sub>x</sub>	205	026	EL ·
со			NS
VOC			NS
<u> </u>			
	:		
<u> </u>	· · ·		
	·		
· ·			_
· 			
			·
		·	

Section [1] Mill Boiler No. 16

#### POLLUTANT DETAIL INFORMATION

Page [1] of [2] Sulfur Dioxide - SO<sub>2</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: SO <sub>2</sub>	2. Total Percent Ef	ficiency of Control:		
3. Potential Emissions:	4. S	ynthetically Limited?		
<b>12.12</b> lb/hour <b>5.31</b>		Yes No		
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year				
6. Emission Factor: 0.06 lb/MMBtu		7. Emissions Method Code:		
Reference: Permit No. 0990005-018-A	C	0		
8.a. Baseline Actual Emissions (if required):	8.b. Baseline 24-mo	onth Period:		
tons/year	From: To:			
9.a. Projected Actual Emissions (if required):	9.b. Projected Moni	•		
tons/year	☐ 5 years ☐	10 years		
·				
10. Calculation of Emissions:				
See Attachment OK-EU1-F1.10 for calculatio	ns.			
·		•		
11. Potential Fugitive and Actual Emissions Comment:				
Maximum emissions based on firing maximum No. 2 fuel oil. Limit applies to both fuel oil and natural gas. Limited annual capacity factor to 10 percent, which is equivalent to a fuel oil usage of 1,301,117 gallons per year.				

Section [1] Mill Boiler No. 16

#### POLLUTANT DETAIL INFORMATION

Page [1] of [2] Sulfur Dioxide - SO<sub>2</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 1 of 1

Basis for Allowable Emissions Code:     OTHER	Future Effective Date of Allowable Emissions:				
3. Allowable Emissions and Units: 0.05 percent S	4. Equivalent Allowable Emissions: 12.12 lb/hour 5.31 tons/year				
5. Method of Compliance: Fuel Analysis					
6. Allowable Emissions Comment (Description of Operating Method): Limit is maximum sulfur content of No. 2 fuel oil and a 10 percent annual capacity factor. Permit No. 0990005-018-AC.					
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				
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 [1]

Mill Boiler No. 16

POLLUTANT DETAIL INFORMATION
Page [2] of [2]
Nitrogen Oxides - NOx

# 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.

Pollutant Emitted:     NOx	2. Total Percent Efficiency of Control:			
3. Potential Emissions:	4. Synt		thetically Limited?	
<b>42.2</b> lb/hour <b>18.48</b>	<b>42.2</b> lb/hour <b>18.48</b> tons/year ⊠		⊠ Yes □ No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year				
6. Emission Factor: 0.20 lb/MMBtu  Reference: Permit No. 0990005-018-AC		7. Emissions Method Code: 0		
8.a. Baseline Actual Emissions (if required): tons/year	From: To:			
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period: ☐ 5 years ☐ 10 years			
10. Calculation of Emissions:  See Attachment OK-F1.10 for calculations.				
	·			
11. Potential Fugitive and Actual Emissions Comment:				
Maximum emissions based on natural gas firing. Emission factor applies to both fuel oil firing and natural gas. Annual emissions based on 10 percent annual capacity factor.				

Section [1] Mill Boiler No. 16

#### POLLUTANT DETAIL INFORMATION

Page [2] of [2] Nitrogen Oxides - NOx

# 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 1 of	of <u>2</u>
Basis for Allowable Emissions Code:     OTHER	Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.20 lb/MMBtu	4. Equivalent Allowable Emissions: 42.2 lb/hour 18.48 tons/year
5. Method of Compliance: Annual testing using EPA Method 7E	
6. Allowable Emissions Comment (Description Based on Permit No. 0990005-018-AC. Limit app on 10 percent annual capacity factor.	
Allowable Emissions 2 of	of <u>2</u>
Basis for Allowable Emissions Code:     OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.20 lb/MMBtu	4. Equivalent Allowable Emissions: 40.4 lb/hour 17.7 tons/year
5. Method of Compliance: Annual testing using EPA Method 7E.	
6. Allowable Emissions Comment (Description Based on Permit No. 0990005-018-AC. Limit app based on 10 percent annual capacity factor.	
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	n of Operating Method):

Section [1] Mill Boiler No. 16

#### G. VISIBLE EMISSIONS INFORMATION

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

<u>Visible Emissions Limitation:</u> Visible Emissions Limitation <u>1</u> of <u>1</u>

1.	Visible Emissions Subtype: VE20	2. Basis for Allowable  ⊠ Rule	Opacity:  Other
3.	Allowable Opacity: Normal Conditions:  20 % Ex Maximum Period of Excess Opacity Allower	aceptional Conditions:	27 % 6 min/hour
4.	Method of Compliance: EPA Method 9		
5.	Visible Emissions Comment: Rule 62-296.406(1), F.A.C.		
<u>Vis</u>	sible Emissions Limitation: Visible Emissi	ons Limitation of _	
	Visible Emissions Subtype:	ons Limitation of _  2. Basis for Allowable  □ Rule	
1.	Visible Emissions Subtype:  Allowable Opacity:	2. Basis for Allowable Rule	Opacity:
3.	Visible Emissions Subtype:  Allowable Opacity: Normal Conditions: % Ex	2. Basis for Allowable Rule	Opacity:  Other
<ol> <li>3.</li> <li>4.</li> </ol>	Visible Emissions Subtype:  Allowable Opacity: Normal Conditions: % Ex Maximum Period of Excess Opacity Allowe	2. Basis for Allowable Rule	Opacity:  Other

Section [1] Mill Boiler No. 16

#### H. CONTINUOUS MONITOR INFORMATION

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

<u>Continuous Monitoring System:</u> Continuous Monitor <u>1</u> of <u>3</u>

1.	Parameter Code: Steam Pressure	2. Pollutant(s):
3.	CMS Requirement:	☑ Rule ☐ Other
4.	Manufacturer: Honeywell	
	Model Number: DR4500 Truline	Serial Number:
5.	Installation Date:	6. Performance Specification Test Date:
7.	Continuous Monitor Comment:	
	Existing permit condition requires monitorin or installation date provided because meter performance.	
1.	Parameter Code: Steam Production	2. Pollutant(s):
3.	CMS Requirement:	☐ Rule ☐ Other
4.	Monitor Information  Manufacturer: Honeywell  Model Number: DR4500 Truline	Serial Number:
5.	Installation Date:	6. Performance Specification Test Date:
7.	Continuous Monitor Comment:  Existing permit condition requires monitorin number or installation date provided becaus optimum performance.	
	•	

Section [1] Mill Boiler No. 16

#### H. CONTINUOUS MONITOR INFORMATION

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

Continuous Monitoring System: Continuous Monitor 3 of 3

1.	Parameter Code: TEMP	2. Pollutant(s):
3.	CMS Requirement:	☐ Rule
4.	Monitor Information  Manufacturer: Honeywell	
	Model Number: DR4500 Truline	Serial Number:
5.	Installation Date: 01 OCT 1995	6. Performance Specification Test Date:
7.	Continuous Monitor Comment:  Existing permit condition requires monitoring or provided because meter is routinely replaced to	

#### EMISSIONS UNIT INFORMATION Section [1] Mill Boiler No. 16

#### 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)  Attached, Document ID: OK-EU1-I1 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)  Attached, Document ID: OK-EU1-12 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)  Attached, Document ID: 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)  Attached, Document ID: OK-EU1-14 Previously Submitted, Date
	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)  Attached, Document ID: Previously Submitted, Date
	Not Applicable
6.	Compliance Demonstration Reports/Records  Attached, Document ID:  Test Date(s)/Pollutant(s) Tested:
	Previously Submitted, Date:  Test Date(s)/Pollutant(s) Tested:
	☐ To be Submitted, Date (if known):  Test Date(s)/Pollutant(s) Tested: NO <sub>x</sub> , Opacity
	☐ 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  ☐ Attached, Document ID: ☐ Not Applicable

DEP Form No. 62-210.900(1) – Form Effective: 02/02/06

Section [1] Mill Boiler No. 16

#### 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))
☐ Attached, Document ID: ⊠ 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.)
☐ Attached, Document ID: ⊠ Not Applicable
3. Description of Stack Sampling Facilities (Required for proposed new stack sampling
facilities only)
☐ Attached, Document ID: ⊠ Not Applicable
Additional Requirements for Title V Air Operation Permit Applications
1. Identification of Applicable Requirements
☐ Attached, Document ID: OK-EU1-IV1 ☐ Not Applicable
2. Compliance Assurance Monitoring
☐ Attached, Document ID: ☐ Not Applicable
3. Alternative Methods of Operation
☐ Attached, Document ID: OK-EU1-IV3 ☐ Not Applicable
4. Alternative Modes of Operation (Emissions Trading)
☐ Attached, Document ID: ☐ ☐ Not Applicable
5. Acid Rain Part Application
☐ Certificate of Representation (EPA Form No. 7610-1)
Copy Attached, Document ID:
☐ Acid Rain Part (Form No. 62-210.900(1)(a))
Attached, Document ID:
Previously Submitted, Date:
Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
Attached, Document ID:
Previously Submitted, Date:
New Unit Exemption (Form No. 62-210.900(1)(a)2.)
Attached, Document ID:
Previously Submitted, Date:
Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)
Attached, Document ID:
☐ Previously Submitted, Date:
Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.)
☐ Attached, Document ID:
☐ Previously Submitted, Date:
Phase II NOx Averaging Plan (Form No. 62-210.900(1)(a)5.)
Attached, Document ID:
Previously Submitted, Date:
Not Applicable Not Applicable

# Section [1] Mill Boiler No. 16 Additional Requirements Comment

DEP Form No. 62-210.900(1) – Form Effective: 02/02/06

**EMISSIONS UNIT INFORMATION** 

ATTACHMENT OK-EU1-F1.10

MAXIMUM EMISSIONS FROM BOILER NO. 16

#### ATTACHMENT OK-EUI-F1.10

			Nat	ural Gas Co	nbustion					No. 2	Fuel Oil Co	nbustion			Maximum Hourly	Maximum Annua
Regulated	Emission	Entission		Activity	Activity	Hourly	Annual	Emission	Emission		Activity	Activity	Hourly	Annual	Emissions Duc	Emissions Due
Pollutant	Factor	Factor	Ref.	Factor*	Factor <sup>b</sup>	Emissions	Emissions	Factor	Factor	Ref.	Factor*	Factor <sup>b</sup>	Entissions	Entissions	to Either Fuel <sup>e</sup>	to Either Fuel
	(lh/10 <sup>6</sup> sef)	(lb/MMBtu)		(MMBtu/hr	(MMBtu/yr	) (lb/h <b>r</b> )	(TPY)	(lb/1000 gal)	lb/MMBtu)		(MMBtu/hr	(MMBtu/yr)	(lb/hr)	(TPY)	(lb/br)	(TPY)
Particulate Matter (PM)	1.9	1.86E-03	1	211	184,836	0.39	0.17		0.03	4	202	176,952	6.06	2.65	6.06	2.65
Particulate Matter (PM <sub>10</sub> )	1.9	1.86E-03	1	211	184,836	0.39	0.17		0.03	4	202	176,952	6.06	2.65	6.06	2.65
Sulfur dioxide (SO <sub>2</sub> )		1.00E-03	4	211	184,836	0.21	0.09	7.85	0.06	4	202	176,952	12.12	5.31	12.12	5.31
Nitrogen oxides (NO <sub>x</sub> )		0.20	7	211	184,836	42.20	18.48		0.20	4	202	176,952	40.40	17.70	42.20	18.48
Carbon monoxide (CO)	_	0.11	7	211	184,836	23.21	10.17		0.11	4	202	176,952	22.22	9.73	23.21	10.17
Volatile Organic Compounds (VOC)	·	0.03	2	211	184,836	6.33	2.77		0.03	2	202	176,952	6.06	2.65	6.33	2.77
Sulfuric acid mist (SAM)		6.13E-05	3	211	184,836	1.29E-02	5.66E-03		2.57E-03	6	202	176,952	0.52	0.23	0.52	0.23
Lead (Pb)	5.E-04	4.90E-07	1	211	184,836	1.03E-04	4.53E-05		9.00E-06	5	202	176,952	1.82E-03	7.96E-04	1.82E-03	7.96E-04
Mercury (Hg)	2.6E-04	2.55E-07	1	211	184,836	5.38E-05	2.36E-05		3.00E-06	5	202	176,952	6.06E-04	2.65E:04	6.06E-04	2.65E-04
Beryllium (Be)	1.2E-05	1.18E-08	- 1	211	184,836	2.49E-06	1.09E-06	*-	3.00E-06	5	202	176,952	6:06E-04	2.65E-04	6.06E-04	2.65E-04
Fluorides (FI)	_										_					

#### References:

- 1. Factors for natural gas combustion from AP-42, Tables 1.4-1, 1.4-2 and 1.4-4 (7/98). Factors were converted to lb/MMBtu by dividing by 1,020 Btu/sef.
- 2. Based on emission guarantees from vendor.
- 3. Based on similar derivation of sulfuric acid mist from AP-42 for fuel oil. 5% of SO<sub>2</sub> becomes SO<sub>3</sub> then take into account the ratio of sulfuric acid mist and gaseous sulfate molecular weights (98/80).
- 4. Based on Permit No. 0990005-009-AC.
  5. Factors for No. 2 fuel oil combustion, AP-42 Table 1.3-1, 1.3-3, and 1.3-10 (9/98). A heating value of 136,000 Btu/gal and a maximum sulfur content of 0.05% were used for the No. 2 fuel oil.
- 6. The emission factor for SO<sub>3</sub> emissions from a No. 2 fuel fired boiler with low NOx burners (5.7S lb/10<sup>3</sup> gal where S is the sulfur content) was multiplied by the ratio of sulfuric acid mist and gaseous sulfate molecular weights (98/80).
- 7. Natural gas emission factor based on worst-case fuel, i.e. fuel oil factor.

- \* 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 10% annual capacity factor: fuel oil usage of 1,301,118 gal/yr or 176,952 MMBtu/yr and natural gas usage of 181.2 MMset/yr or 184,836 MMBtu/yr.
- <sup>6</sup> Maximum emissions predicted for either natural gas combustion only or No. 2 fuel oil eombustion only.

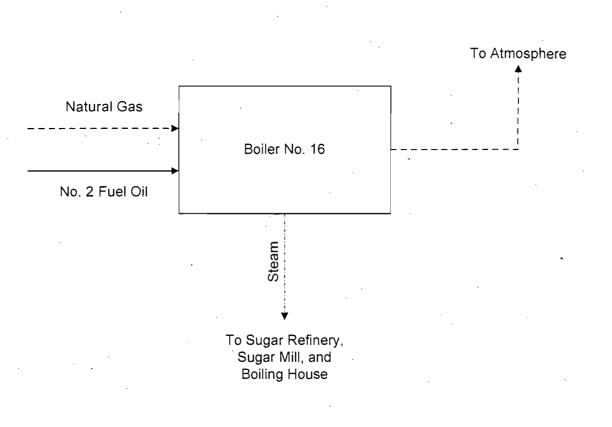
Hourly Emissions = Emission Factor (Ib/MMBtu) x Activity Factor (MMBtu/yr)

Annual Emissions = Activity Factor (MMBtu/yr) x Emission Factor (Ib/MMBtu) / 2,000 (Ib/ton)

0637539/4.4/OK-EU1-F1.10

ATTACHMENT OK-EU1-I1

PROCESS FLOW DIAGRAM



Attachment OK-EU1-I1 Boiler No. 16 - Process Flow Diagram

Okeelanta Corporation - South Bay, FL

Process Flow Legend
Solid/Liquid
Gas
Steam

Filename: 0637539/4.4/OK-EU1-I1.vsd

Date: 25/05/06



ATTACHMENT OK-EU1-I2

DESIGN FUEL SPECIFICATIONS

# ATTACHMENT OK-EU1-I2 DESIGN FUEL SPECIFICATIONS FOR BOILER NO. 16<sup>a</sup>

		<u>_</u>	· · · · · · · · · · · · · · · · · · ·
Parame	ter	No. 2 Fuel Oil	Natural Gas
Specific Gravity		0.865	_
Heating Value	(Btu/lb)	19,175	<del></del> .
Heating Value	(Btu/gal)	136,000	_
Heating Value	(Btu/scf)	_	.1,020
Ultimate Analys	is (dry basis	percentage):	
Carbon		87.01	82.96
Hydrogen		12.47	5.41
Nitrogen		0.02	1.58
Oxygen			5.72
Sulfur		0.05	0.67
Ash/Inorganic		-	3.66
•			·
Moisture		<del>-</del> -	4.5

<sup>&</sup>lt;sup>a</sup> Represents average fuel characteristics.

Sources:

Okeelanta Corp., 2002.

Combustion Engineering, 1981.

#### **ATTACHMENT OK-EU1-I4**

PROCEDURES FOR STARTUP AND SHUTDOWN

#### **ATTACHMENT OK-EU1-14**

#### PROCEDURES FOR STARTUP AND SHUTDOWN BOILER NO. 16

During startup and shutdown of the boiler, excess emissions for more than 2 hours in a 24-hour period are possible. Pursuant to Rule 62-210.700(1), F.A.C., the following procedures and precautions are taken to minimize the magnitude and duration of excess emissions during startup and shutdown of Boiler No. 16.

#### **Startup Procedures**

- 1. Check to ensure all the boiler doors/registers are closed.
- 2. Propane supply to the gun is opened and compressed air is admitted to atomizing system.
- 3. The start switch is turned on to activate the startup sequence. Once oil firing is established, minimum fire (10%) is maintained for 30 minutes on and 30 minutes off for approximately 2 hours.
- 4. Continuous firing is established and steam pressure increased to about 150 psig. Firing continues on low fire until operating pressure (350 psig) is available on the line (about 5 hours after initial firing). Atomization is changed to steam.
- 5. Once consistent steam flow to user(s), e.g., turboalternator, is established, boiler controls are placed in automatic.

#### **Shutdown Procedures**

- 1. Control is turned off and the fuel pump is shut off.
- 2. The atomizing steam valve is closed. The FD fan is shut off.
- 3. After about 3 hours, the drum level is set at maximum level.

#### ATTACHMENT OK-EU1-IV1

MILL BOILER NO. 16
RULE APPLICABILITY FOR OKEELANTA CORPORATION

#### ATTACHMENT OK-EU1-IV1

#### RULE APPLICABILITY FOR ODEELANTA CORPORATION

APPLIC STAT  APPLICABLE	RULE DESCRIP			
APPLICABLE	ROLE DESCRI	RULE NUMBER	RULE TITLE	RATIONALE FOR NON- APPLICABILITY
	60 Subpart A	40CFR60.1	Subpart A General Provisions	
APPLICABLE	60 Subpart A	40CFR60.7	Notification and Record Keeping	
APPLICABLE	60Subpart A	40CFR60.8	Performance Testing	
APPLICABLE	60 Subpart A	40CFR60.11	Compliance with standards and maintenance requirements.	
APPLICABLE	60 Subpart A	40CFR60.12	Circunvention.	
APPLICABLE	60 Subpart A	40CFR60.13	Monitoring requirements.	
APPLICABLE	60 Subpart A	40CFR60.13(a)	Monitoring requirements.	
APPLICABLE	60 Subpart A	40CFR60.13(b)	Monitoring requirements.	
NON-APPLICABLE	60 Subpart A	40CFR60.13(c)	Monitoring requirements.	Alternate monitoring procedure instead of COMs for opacity.
APPLICABLE	60 Subpart A	40CFR60.13(i)	Monitoring requirements.	
APPLICABLE	60 Subpart A	40CFR60.19	General notification and reporting requirements	
NON-APPLICABLE	60 Subpart Da	40CFR60.40a	Subpart Da - NSPS for Electric Utility Units for which construction commenced after Sept. 18, 1978.	Boiler No. 16 is not an electric utility unit.
APPLICABLE	60 Subpart Db	40CFR60.40b	Subpart Db - Applicability and delegation of authority	
APPLICABLE	60 Subpart Db	40CFR60.42b	Standard for sulfur dioxide.	
APPLICABLE	60 Subpart Db	40CFR60.42b(a)		·
NON-APPLICABLE	60 Subpart Db	40CFR60.42b( c)		Boiler No. 16 does not combust coal and
	,			oil as part of a combined cycle system.
NON-APPLICABLE	60 Subpart Db	40CFR60.42b(d)		Boiler No. 16 does not combust coal refuse alone.
APPLICABLE	60 Subpart Db	40CFR60.42b(e)		
NON-APPLICABLE	60 Subpart Db	40CFR60.42b(f)		Boiler No. 16 combusts oil and natural gas.
APPLICABLE	60 Subpart Db	40CFR60.42b(g)		
NON-APPLICABLE	60 Subpart Db	40CFR60.42b(h)		Boiler No. 16 does not use a fuel pretreatment to reduce sulfur dioxide emissions.
NON-APPLICABLE	60 Subpart Db	40CFR60.42b(i)		Boiler No. 16 does not use a sulfur dioxide control system.
APPLICABLE	60 Subpart Db	40CFR60.42b(j)		
APPLICABLE	60 Subpart Db	40CFR60.43b	Standard for particulate matter	
NON-APPLICABLE	60 Subpart Db	40CFR60.43b(a)		Boiler No. 16 does not combust coal.
NON-APPLICABLE	60 Subpart Db	40CFR60.43b(b)		Facility does not use conventional or
	ov suspan 20			emerging technology to reduce sulfur dioxide emissions.
NON-APPLICABLE	60 Subpart Db	40CFR60.43b(c)		Boiler No. 16 does not combust wood.
NON-APPLICABLE	60 Subpart Db	40CFR60.43b(d)		Boiler No. 16 does not combust municipa type solid waste.
NON-APPLICABLE	60 Subpart Db	40CFR60.43b(e)		Boiler No. 16 does not combust coal, wood, or municipal-type solid waste.
APPLICABLE	60 Subpart Db	40CFR60.43b(f)		
APPLICABLE	60 Subpart Db	40CFR60.43b(g)		
APPLICABLE	60 Subpart Db	40CFR60.44b	Standard for nitrogen oxides	-
APPLICABLE	60 Subpart Db	40CFR60.44b(k)		
NON-APPLICABLE	60 Subpart Db	40CFR60.44b(l)		Facility commenced construction/modification before July 9, 1997.
APPLICABLE	60 Subpart Db	40CFR60.45b	Compliance and performance test methods and procedures for sulfur dioxide	
APPLICABLE	60 Subpart Db	40CFR60.45b(a)		
APPLICABLE	60 Subpart Db	40CFR60.45b(j)		
APPLICABLE	60 Subpart Db	40CFR60.46b	Compliance and performance test methods and procedures for particulate matter and nitrogen oxides	Boiler No. 16 is subject to opacity standards.
APPLICABLE	60 Subpart Db	40CFR60.46b(a)		
APPLICABLE	60 Subpart Db	40CFR60.46b(d)		
	60 Subpart Db	40CFR60.46b(d)(7)		EPA Method 9 is used for opacity.
APPLICABLE !	60 Subpart Db	40CFR60.40b(d)(7)	Emission monitoring for sulfur disside	LLTA Method 7 is used for opacity.
APPLICABLE	oo suopan Do		Emission monitoring for sulfur dioxide	
APPLICABLE	(0 C. L DI			
	60 Subpart Db 60 Subpart Db	40CFR60.47b(f) 40CFR60.48b	Emission monitoring for particulate matter and nitrogen oxides	

#### ATTACHMENT OK-EUI-IVI

#### RULE APPLICABILITY FOR ODEELANTA CORPORATION

		RULE APPLICABIL	ITY FOR ODEELANTA CORPORATION	
APPLIC STAT	RULE DESCRIP	RULE NUMBER	RULE TITLE	RATIONALE FOR NON- APPLICABILITY
APPLICABLE	60 Subpart Db	40CFR60.48b(i)		
APPLICABLE	60 Subpart Db	40CFR60.49b	Reporting and recordkeeping requirements	
APPLICABLE	60 Subpart Db	40CFR60.49b(a)		
NON-APPLICABLE	60 Subpart Db	40CFR60.49b(b)		No CEMS required.
NON-APPLICABLE	60 Subpart Db	40CFR60.49b( c)		Boiler No. 16 not subject to nitrogen oxide limits set forth in 40CFR60.44b.
APPLICABLE	60 Subpart Db	40CFR60.49b(d)		
NON-APPLICABLE	60 Subpart Db	40CFR60.49b(e)	· ·	Boiler No. 16 does not burn No. 6 oil.
APPLICABLE	60 Subpart Db	40CFR60.49b(f)		
NON-APPLICABLE	60 Subpart Db	40CFR60.49b(g)		Boiler No. 16 not subject to nitrogen oxide limits set forth in 40CFR60.44b.
APPLICABLE	60 Subpart Db	40CFR60.49b(h)		
APPLICABLE	60 Subpart Db	40CFR60.49b(h)(1)		
NON-APPLICABLE	60 Subpart Db	40CFR60.49b(i)		No continuous monitoring requirements for nitrogen oxides required.
APPLICABLE	60 Subpart Db	40CFR60.49b(j)		
NON-APPLICABLE	60 Subpart Db	40CFR60.49b(k)		
NON-APPLICABLE	60 Subpart Db	40CFR60.49b(1)		
NON-APPLICABLE	60 Subpart Db	40CFR60.49b(m)	·	Minimim amount of data obtained during reporting period.
NON-APPLICABLE	60 Subpart Db	40CFR60.49b(n)	•	Fuel pretreatment not used.
APPLICABLE	60 Subpart Db	40CFR60.49b(o)		
APPLICABLE	60 Subpart Db	40CFR60.49b(r)		
APPLICABLE	60 Subpart Db	40CFR60.49b(v)		
APPLICABLE	63 Subpart A	40 CFR 63.9(b)	Subpart DDDDD - NESHAP for Industrial, Commercial, and Institutional Boiler and Process Heaters - Notification Requirements	Boiler is an existing limited-use liquid fue unit and subject to notification requirements only.
APPLICABLE	63 Subpart DDDDD	40 CFR 63.7506(b)	Subpart DDDDD - NESHAP for Industrial, Commercial, and Institutional Boiler and Process Heaters	Boiler is an existing limited-use liquid fue unit and subject to notification requirements only.
APPLICABLE	62-204	62-204.8(b)3.	NSPS Subpart Db adopted by reference.	
APPLICABLE	62-296 <	62-296	STATIONARY SOURCES - EMISSION STANDARDS	
NON-APPLICABLE	62-296 <	62-296.405	Fossil Fuel Steam Generators with more than 250 million Btu per Hour Heat Input.	Boiler No. 16 has a heat input of <250 MMBtu/hr
APPLICABLE	62-296 <	62-296.406	Fossil Fuel Steam Generators with less than 250 Million Btu per Hour Heat Input, New and Existing Em	,
NON-APPLICABLE	62-296 >	62-296.500	Reasonably Available Control Technology (RACT) - Volatile Organic Compounds (VOC) and Nitrogen Oxide	Boiler No. 16 was subject to PSD/BACT for Nox emissions.
NON-APPLICABLE	62-296 >	62-296.570	Reasonably Available Control Technology (RACT) - Requirements for Major VOC- and NOx-Emitting Facility	Boiler No. 16 was subject to PSD/BACT for Nox emissions.
NON-APPLICABLE	62-296 >	62-296.700	Reasonably Available Control Technology (RACT) Particulate Matter.	Okeelanta is located in Palm Beach County, which is not a nonattainment or inaintenance area for particulate matter.
NON-APPLICABLE	62-296 >	62-296.702	Fossil Fuel Steam Generators.	Okeelanta is located in Palm Beach County, which is not a nonattainment or maintenance area for particulate matter.
APPLICABLE	62-297	62-297	STATIONARY SOURCES - EMISSIONS MONITORING	
APPLICABLE	62-297	62-297.310	General Compliance Test Requirements.	
APPLICABLE	62-297	62-297.310(1)	Required number of test runs.	
APPLICABLE	62-297	62-297.310(2)	Operating rate during testing.	
APPLICABLE	62-297	62-297.310(3)	Calculation of emission rate.	
APPLICABLE	62-297	62-297.310(4)	Applicable test procedures.	
APPLICABLE	62-297	62-297.310(5)	Determination of process variables.	
APPLICABLE	62-297	62-297.310(6)	Required stack sampling facilities.	
APPLICABLE	62-297	62-297.310(7)	Frequency of compliance tests.	
APPLICABLE	62-297	62-297.310(8)	Test reports.	
ALLEICABLE				

#### ATTACHMENT OK-EU1-IV1

#### RULE APPLICABILITY FOR ODEELANTA CORPORATION

APPLIC STAT	RULE DESCRIP	RULE NUMBER	RULE TITLE	RATIONALE FOR NON- APPLICABILITY
APPLICABLE	62-297	62-297.401(1)(a)	EPA Method 1 - Sample and Velocity Traverses for Stationary sources - 40 CFR 60 Appendix A.	
APPLICABLE	62-297	62-297.401(2)	EPA Method 2 - Determination of Stack Gas Velocity and Volumetric Flow Rate - 40 CFR 60 Appendix A.	
APPLICABLE	62-297	62-297.401(3)	EPA Method 3 - Gas Analysis for Carbon Dioxide, Oxygen, Excess Air, and Dry Molecular Weight - 40 CFR 60 Appendix A.	
APPLICABLE	62-297	62-297.401(4)	EPA Method 4 - Determination of Moisture Content in Stack Gases - 40 CFR 60 Appendix A.	_
APPLICABLE	62-297	62-297.401(5)	EPA Method 5 - Determination of Particulate Emissions from Stationary Sources - 40 CFR 60 Appendix A.	
APPLICABLE	62-297	62-297.401(6)	EPA Method 5 - Determination of Sulfur Dioxide Emissions from Stationary Sources - 40 CFR 60 Appendix A.	
APPLICABLE	62-297	62-297.401(10)	EPA Method 10 - Determination of Carbon Monoxide Emissions from Stationary Sources - 40 CFR 60	
APPLICABLE	62-297	62-297.401(9)	EPA Test Method 22 - Determination of Fugitive Emissions from Material Sources and Smoke Emissions from Flares - 40 CFR 60 Appendix A.	
APPLICABLE	62-297	62-297.401(25)	EPA Method 25 - Determination of Total Gaseous Nonmethane Organic Emissions as Carbon - 40 CFR 60 Appendix A.	
APPLICABLE	62-297	62-297.401(41)	EPA Method 201 - Determination of PM10 Emissions (Exhaust Gas Recycle Procedure) - 40 CFR 51	
APPLICABLE	62-297	62-297.401(41)(a)	EPA Method 201 - Determination of PM10 Emissions (Exhaust Gas Recycle Procedure) - 40 CFR 51	
	62-297	62-297.620	Exceptions and Approval of Alternate Procedures and Requirements.	

## STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

#### NOTICE OF FINAL PERMIT

In the Matter of an Application for Permit by:

Okeelanta Corporation 21250 U.S. Highway 27 South Bay, FL 33493

Authorized Representative:

Mr. Ricardo Lima, V.P and General Manager

Okeelanta Sugar Mill and Refinery Facility ID No. 0990005 Project No. 0990005-018-AC Boiler No. 16 – Capacity Reduction

Enclosed is Final Air Permit No. 0990005-018-AC, which restricts fossil fuel firing in Boiler 16 (EU-014) to an annual capacity factor of 10% or less, which reduces all emissions below the PSD significant emission rates and avoids the continuous monitoring requirements of NSPS Subpart Db. Boiler 16 is installed at Okeelanta Corporation's existing sugar mill and sugar refinery located approximately six miles south of South Bay on U.S. Highway 27 in Palm Beach County, Florida. As noted in the attached Final Determination, only minor changes and clarifications were made. This permit is issued pursuant to Chapter 403, Florida Statutes.

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

Executed in Tallahassee, Florida.

Vulhaue

Trina Vielhauer, Chief Bureau of Air Regulation

#### CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this <u>Notice of Final Permit</u> (including the Final permit) was sent by certified mail (\*) and copies were mailed by U.S. Mail before the close of business on to the persons listed:

Ricardo Lima, Okeelanta Corporation\*
Matthew Capone, Okeelanta Corporation
David Buff, Golder Associates Inc.
Ron Blackburn, SD Office
James Stormer, PBCHD

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.

(Clerk)

(Data)

Florida Department of Environmental Protection

Division of Air Resource Management • Bureau of Air Regulation • Air Permitting North Program

2600 Blair Stone Road, MS #5505 • Tallahassee, Florida 32399-2400

#### FINAL DETERMINATION

#### **PERMITTEE**

Okeelanta Corporation 21250 U.S. Highway 27 South Bay, FL 33493

#### PERMITTING AUTHORITY

Florida Department of Environmental Protection Division of Air Resource Management Bureau of Air Regulation, Air Permitting South Program 2600 Blair Stone Road, MS #5505 Tallahassee, Florida, 32399-2400

#### **PROJECT**

Air Permit No. 0990005-018-AC Okeelanta Corporation - Sugar Mill and Refinery

This permit restricts fossil fuel firing in Boiler 16 (EU-014) to an annual capacity factor of 10% or less, which reduces all emissions below the PSD significant emission rates and avoids the continuous monitoring requirements of NSPS Subpart Db. Boiler 16 is installed at Okeelanta Corporation's existing sugar mill and sugar refinery located approximately six miles south of South Bay on U.S. Highway 27 in Palm Beach County, Florida.

#### NOTICE AND PUBLICATION

The Department distributed an "Intent to Issue Permit" package on February 27, 2006. The applicant published the "Public Notice of Intent to Issue" in the Palm Beach Post on March 17, 2006. This notice was combined with the notice required for the transshipment project. The Department received the proof of publication on March 29, 2006. No petitions for administrative hearings or extensions of time to petition for an administrative hearing were filed.

#### **COMMENTS**

No comments on the Draft Permit were received from the public, the Department's District Office, the Palm Beach County Health Department or the applicant.

On March 1st, the Department received an email from EPA Region 4 clarifying the February 2006 revisions to NSPS Subpart Db for industrial boilers. If the facility combusts only oil containing no more than 0.3% sulfur by weight, the revisions now exempt affected facilities constructed, reconstructed, or modified after February 18, 2005 from particulate matter and opacity limits. Boiler 16 is permitted to fire only natural gas or distillate oil containing no more than 0.05% sulfur by weight. In accordance with § 60.46b(i), compliance must be demonstrated obtaining fuel supplier certifications of sulfur content. Appendix Db of the permit was corrected to reflect this recent change.

#### CONCLUSION

In addition to the above referenced revisions, only minor changes were made to correct typographical errors. The final action of the Department is to issue the permit with the changes described above.



### Department of Environmental Protection

Jeb Bush Governor Twin Towers Office Building 2600 Blair Stone Road Tallahassee, Florida 32399-2400

Colleen M. Castille Secretary

#### PERMITTEE:

Okeelanta Corporation 21250 U.S. Highway 27 South Bay, FL 33493

Authorized Representative:

Mr. Ricardo Lima, V.P and General Manager

Okeelanta Sugar Mill and Refinery Facility ID No. 0990005 Project No. 0990005-018-AC Boiler No. 16 – Capacity Reduction Expires: April 1, 2007

#### PROJECT AND LOCATION

The project is associated with Okeelanta Corporation's existing sugar mill (SIC No. 2061) and sugar refinery (SIC No. 2062) located approximately six miles south of South Bay on U.S. Highway 27 in Palm Beach County, Florida. The facility is collocated next to New Hope Power's Okeelanta Cogeneration Plant. The UTM coordinates are Zone 17, 524.9 km East, and 2940.1 km North. The project restricts fossil fuel firing in Boiler 16 (EU-014) to an annual capacity factor of 10% or less, which reduces all emissions below the PSD significant emission rates and avoids the continuous monitoring requirements of NSPS Subpart Db. This permit supersedes previous Permit No. PSD-FL-169A (Project No. 0990005-009-AC).

#### STATEMENT OF BASIS

This air pollution construction permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.) and Title 40, Part 52, Section 21 of the Code of Federal Regulations. The permittee is authorized to perform the work and operate the equipment in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department.

#### **CONTENTS**

Section 1. General Information

Section II. Administrative Requirements

Section III. Emissions Units Specific Conditions

Section IV. Appendices

\_ Milel B. Coole

Michael G. Cooke, Director Division of Air Resource Management (Date)

"More Protection, Less Process"

Printed on recycled paper.

#### **FACILITY DESCRIPTION**

The facility consists of two adjacent plants. Okeelanta Corporation operates a sugar mill (SIC No. 2061) and sugar refinery (SIC No. 2062) including packaging and transshipment activities. New Hope Power operates the Okeelanta Cogeneration Plant that provides process steam for the sugar mill/sugar refinery and generates electricity for sale to the power grid (SIC 4911).

#### **EMISSIONS UNITS**

This permit modifies the following existing emissions unit.

ID	Emission Unit Description
014	Boiler No. 16 is a 211/202 MMBtu per hour package boiler fired with natural gas/distillate oil.

#### REGULATORY CLASSIFICATION

<u>Title III</u>: The facility is a major source of hazardous air pollutants (HAPs).

Title IV: The facility is not subject to the acid rain provisions of the Clean Air Act.

Title V: The facility is a Title V major source of air pollution in accordance with Chapter 62-213, F.A.C.

PSD: The facility is a PSD-major facility as defined in Rule 62-212.400, F.A.C.

NSPS: The facility operates emissions units subject to the New Source Performance Standards (NSPS) of 40 CFR 60 including: Subparts Da (boilers) and Db (boilers).

<u>NESHAP</u>: The facility operates emissions units subject to the National Emissions Standards for Hazardous Air Pollutants (NESHAP) of 40 CFR 63 including Subpart DDDDD (boilers).

#### **APPENDICES**

The following Appendices are attached in Section IV as part of this permit.

Appendix CF. Citation Format

Appendix Db. NSPS Subpart Db Requirements for Boilers

Appendix GC. General Conditions

Appendix SC. Standard Conditions

#### RELEVANT DOCUMENTS

The documents listed below are not a part of this permit; however, they are specifically related to this permitting action and are on file with the Department.

- Application No. 0990005-018-AC received on 12/14/05.
- Permit No. PSD-FL-169A (Project No. 0990005-009-AC).

#### SECTION II. ADMINISTRATIVE REQUIREMENTS

- 1. Permitting Authority: All documents related to applications for permits to construct, modify, or operate an emissions unit shall be submitted to the Bureau of Air Regulation of the Florida Department of Environmental Protection (DEP) at 2600 Blair Stone Road (MS #5505), Tallahassee, Florida 32399-2400. Copies of all such documents shall be submitted to the Air Resources Section of the Department's South District Office (2295 Victoria Avenue, Suite 364 in Fort Myers, Florida 33902-2549) and the Air Pollution Control Section of the Palm Beach County Health Department (P.O. Box 29, West Palm Beach, Florida 33402-0029).
- 2. <u>Compliance Authorities</u>: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Air Resources Section of the Department's South District Office at 2295 Victoria Avenue, Suite 364 in Fort Myers, Florida 33902-2549. Copies of all such documents shall be submitted to the Air Pollution Control Section of the Palm Beach County Health Department at P.O. Box 29, West Palm Beach, Florida 33402-0029.
- 3. <u>Appendices</u>: The following Appendices are attached as part of this permit: Appendix CF. (Citation Format); Appendix Db (NSPS Subpart Db Requirements for Boilers); Appendix GC (General Conditions); and Appendix SC (Standard Conditions).
- 4. Applicable Regulations, Forms and Application Procedures: Unless otherwise indicated in this permit, the construction and operation of the subject emissions unit shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of: Chapter 403 of the Florida Statutes (F.S.); Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.); Title 40, Part 60 of the Code of Federal Regulations (CFR), adopted by reference in Rule 62-204.800, F.A.C.; and Title 40, Part 63 of the Code of Federal Regulations (CFR), adopted by reference in Rule 62-204.800, F.A.C. The terms used in this permit have specific meanings as defined in the applicable chapters of the Florida Administrative Code. The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. Issuance of this permit does not relieve the permittee from compliance with any applicable federal, state, or local permitting or regulations. [Rules 62-204.800, 62-210.300 and 62-210.900, F.A.C.]
- 5. New or Additional Conditions: For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]
- 6. <u>Modifications</u>: The permittee shall notify the Compliance Authority upon commencement of construction. No emissions unit or facility subject to this permit shall be constructed or modified without obtaining an air construction permit from the Department. Such permit shall be obtained prior to beginning construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]
- 7. <u>Title V Permit</u>: This permit authorizes construction of the permitted emissions units and initial operation to determine compliance with Department rules. A Title V operation permit is required for regular operation of the permitted emissions unit. Because there is no work to be performed, the permittee shall apply for a revised Title V operation permit within 45 days of issuance of this final permit. To apply for a Title V operation permit, the applicant shall submit the appropriate application form, compliance test results, and such additional information as the Department may by law require. The application shall be submitted to the appropriate Permitting Authority with copies to the Compliance Authority. [Rules 62-4.030, 62-4.050, 62-4.220, and Chapter 62-213, F.A.C.]

#### SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

#### A. MILL BOILER NO. 16

This section of the permit addresses the following modified emissions unit.

#### Emissions Unit 014: Mill Boiler No. 16

Description: This unit is Babcock and Wilcox Model No. FM 120-97 package boiler with a maximum steam production rate of 150,000 pounds per hour (24-hour average). The design heat release rate for this unit is greater than 70,000 BTU/hour-ft<sup>3</sup>.

Fuels: This unit is fired with pipeline-quality natural gas or very low sulfur distillate oil.

Capacity: The heat input rate is 211 MMBtu per hour when firing natural gas, which is approximately 0.207 million cubic feet of gas per hour based on a heat content of 1020 MMBtu per million SCF. The heat input rate is 202 MMBtu per hour when firing very low sulfur distillate oil, which is approximately 1485 gallons per hour based on a heat content of 136 MMBtu per thousand gallons.

Controls: The efficient combustion of clean fuels minimizes emissions of CO, PM/PM<sub>10</sub>, SO<sub>2</sub>, and VOC. Emissions of NOx are reduced with low NOx burners and flue gas recirculation (approximately 15%).

Stack Parameters: Exhaust gases exit a 75' tall stack that is 5.0' in diameter at 393° F with a volumetric flow rate of 118,600 acfm.

#### **CONTROL EQUIPMENT**

1. <u>NOx Emissions</u>: The permittee shall tune, maintain and operate the low-NOx burner system along with flue gas recirculation (FGR) to achieve the emissions standards specified in this permit. The burner system shall be capable of firing natural gas and distillate oil. [Design; Rule 62-4.070(3), F.A.C.]

#### PERFORMANCE RESTRICTIONS

- 2. <u>Authorized Fuel</u>: The boiler shall fire only natural gas or No. 2 distillate oil with a maximum sulfur content of 0.05% sulfur by weight. [Design; Rule 62-210.200(PTE), F.A.C.; Rule 62-296.406 (BACT), F.A.C.]
- 3. Permitted Capacity: The maximum design heat input rates to the boiler are 211 MMBtu per hour when firing natural gas and 202 MMBtu per hour when firing distillate oil. The maximum steam production rate shall not exceed 150,000 pounds per hour based on a 24-hour block average. The boiler shall be equipped with integrating fuel flow meters to monitor the consumption of natural gas and distillate oil. The boiler shall be equipped with instruments to continuously monitor the steam production rate (pounds per hour), steam temperature (° F), and steam pressure (psig). [Design; Rule 62-210.200(PTE), F.A.C.]
- 4. Restricted Operation: The hours of operation are not limited (8760 hours per year); however, the annual capacity factor for the combined firing of distillate oil and natural gas shall not exceed 10% during any calendar year. The heat input rate to the boiler shall not exceed 184,836 MMBtu per year (10% of the maximum permitted heat input rate). The annual heat input rate shall be determined from records of the higher heating value of each authorized fuel and the actual fuel consumption for the calendar year. Each year, the annual capacity factor and annual heat input rate shall be reported with the required Annual Operating Report. \*Permitting Note: This restriction limits potential emissions below all PSD significant emission rates and allows the unit to avoid the continuous monitoring requirements of NSPS Subpart Db.} [Applicant Request; § 60.41b (Definitions); § 60.44b (Nitrogen Oxides); Rule 62-210.200(PTE), F.A.C.]

#### **EMISSIONS STANDARDS**

- 5. Stack Opacity: As determined by EPA Method 9 observations, visible emissions from the boiler stack shall not exceed 20% opacity, except for one 6-minute period per hour that does not exceed 27% opacity. [Rule 62-296.406(1), F.A.C.]
- 6. Nitrogen Oxides (NOx) Emissions: As determined by EPA Method 7E, NOx emissions shall not exceed 0.20 lb/MMBtu (42.2 lb/hour) when firing natural gas based on the average of three test runs. As determined by EPA Method 7E, NOx emissions shall not exceed 0.20 lb/MMBtu (40.4 lb/hour) when firing distillate oil based on the average of three test runs. [Design; Rule 62-4.070(3), F.A.C.; Rule 62-212.400(2)(g), F.A.C.]
- 7. <u>Fuel Specification</u>: The boiler shall fire only natural gas or No. 2 distillate oil with a maximum sulfur content of 0.05% sulfur by weight. Emissions of carbon monoxide (CO), particulate matter (PM/PM10), sulfur dioxide (SO2), and

#### SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

#### A. MILL BOILER NO. 16

volatile organic compounds (VOC) shall be minimized by the efficient combustion of these authorized fuels. {Permitting Note: The expected maximum CO emissions are 0.11 lb/MMBtu (natural gas or distillate oil). The expected maximum PM/PM10 emissions are 0.002 lb/MMBtu (natural gas) and 0.03 lb/MMBtu (distillate oil). The expected maximum SO2 emissions are 0.001 lb/MMBtu (natural gas) and 0.06 lb/MMBtu (distillate oil). The expected maximum VOC emissions are 0.03 lb/MMBtu (natural gas or distillate oil).} [Rule 62-4.070(3), F.A.C.; Rule 62-296.406(2) and (3)]

#### **EMISSIONS PERFORMANCE TESTING**

8. Test Methods: As required, tests shall be performed in accordance with the following reference methods.

EPA Method	Description of Method and Comments
7E	Determination of Nitrogen Oxide Emissions from Stationary Sources
9	Visual Determination of the Opacity of Emissions from Stationary Sources

In addition, it may be necessary to perform EPA Methods 1 through 4 as part of the above test methods. These test methods are specified in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used to demonstrate compliance unless prior written approval is received from the Department. Other applicable testing requirements are included in Appendix SC of the permit. [Rules 62-204.800 and 62-297.100, F.A.C.; 40 CFR 60, Appendix A]

Compliance Tests: Within 12 months of issuance of this permit, the permittee shall conduct performance tests to determine compliance with the opacity and NOx emissions for each authorized fuel. Thereafter, the permittee shall conduct NOx performance testing within 12 months before the expiration date of the Title V operation permit. NOx emissions shall be reported in terms of "pounds per MMBtu of heat input" and "pounds per hour" using the appropriate F-factors for each fuel. Subsequent opacity tests shall be conducted during any federal fiscal year (October 1st to September 30th) that the boiler fires distillate oil for 400 hours or more. [Rule 62-4.070(3), F.A.C.; Rule 62-297.310(7)(a)1, F.A.C.]

#### RECORDS AND REPORTS

- 10. Fuel Sulfur Records: Compliance with the distillate oil fuel sulfur limit shall be demonstrated by taking an initial sample, analyzing the sample for fuel sulfur, and reporting the results with the initial emissions compliance test report. Sampling and analyzing the fuel oil sulfur content shall be conducted in accordance with ASTM D4057-88, Standard Practice for Manual Sampling of Petroleum and Petroleum Products, and one of the following test methods for sulfur in petroleum products: ASTM D129-91, ASTM D1552-90, ASTM D2622-94, or ASTM D4294-90. More recent versions or equivalent methods may be used. For each subsequent distillate oil delivery, the permittee shall maintain a permanent file of the certified fuel sulfur analysis from the vendor. At the request of a Compliance Authority, the permittee shall perform additional sampling and analysis for the fuel sulfur content. [Rule 62-4.070(3), F.A.C.; Rule 62-4.160(15), F.A.C.; Rule 62-297.310(7)(b), F.A.C.; §§60.42b (j), 60.47b (f), and 60.49b (r)]
- 11. Operational Records: The permittee shall maintain records sufficient to determine compliance with the following: fuel consumptions rates and hours of operation for each authorized fuel; higher heating value of each authorized fuel; maximum annual heat input rate for the calendar year; and steam production records. Information shall be available for inspection within at least three days of a request from the Department or a Compliance Authority. [Rules 62-4.160(15) and 62-4.070(3), F.A.C.]
- 12. <u>Test Reports</u>: The permittee shall prepare and submit reports for all required tests in accordance with the requirements specified in Section 4, Appendix SC of this permit. [Rule 62-297.310(8), F.A.C.]

#### **OTHER REQUIREMENTS**

13. <u>Applicable Requirements</u>: The boiler is also subject to the NSPS Subpart Db requirements for commercial boilers in Appendix Db and the standard conditions in Appendix SC. These appendices are found in Section IV of this permit.

#### SECTION IV. APPENDICES

#### CONTENTS

Appendix CF. Citation Format

Appendix Db. NSPS Subpart Db Requirements for Boilers

Appendix GC. General Conditions
Appendix SC. Standard Conditions

#### SECTION IV. APPENDIX CF

#### **CITATION FORMAT**

The following examples illustrate the format used in the permit to identify applicable permitting actions and regulations.

#### REFERENCES TO PREVIOUS PERMITTING ACTIONS

#### Old Permit Numbers

Example: Permit No. AC50-123456 or Air Permit No. AO50-123456

Where: "AC" identifies the permit as an Air Construction Permit

"AO" identifies the permit as an Air Operation Permit "123456" identifies the specific permit project number

#### New Permit Numbers

Example: Permit Nos. 099-2222-001-AC, 099-2222-001-AF, 099-2222-001-AO, or 099-2222-001-AV

Where: "099" represents the specific county ID number in which the project is located

"2222" represents the specific facility ID number

"001" identifies the specific permit project

"AC" identifies the permit as an air construction permit

"AF" identifies the permit as a minor federally enforceable state operation permit

"AO" identifies the permit as a minor source air operation permit

"AV" identifies the permit as a Title V Major Source Air Operation Permit

#### **PSD Permit Numbers**

Example: Permit No. PSD-FL-317

Where: "PSD" means issued pursuant to the Prevention of Significant Deterioration of Air Quality

"FL" means that the permit was issued by the State of Florida

"317" identifies the specific permit project

#### **RULE CITATION FORMATS**

#### Florida Administrative Code (F.A.C.)

Example: [Rule 62-213.205, F.A.C.]

Means: Title 62, Chapter 213, Rule 205 of the Florida Administrative Code

#### Code of Federal Regulations (CFR)

Example: [40 CRF 60.7]

Means: Title 40, Part 60, Section 7

#### SECTION IV. APPENDIX Db

#### NSPS SUBPART Db REQUIREMENTS FOR BOILERS

The NSPS requirements of this section apply to the following emissions unit:

1D	Emission Unit Description								
014	Mill Boiler No. 16 is a 211/202 MMBtu per hour package boiler fired with natural gas/distillate oil.								

#### **NSPS General Provisions**

The emissions unit is subject to the applicable General Provisions of the New Source Performance Standards including 40 CFR 60.7 (Notification and Record Keeping), 40 CFR 60.8 (Performance Tests), 40 CFR 60.11 (Compliance with Standards and Maintenance Requirements), 40 CFR 60.12 (Circumvention), 40 CFR 60.13 (Monitoring Requirements), and 40 CFR 60.19 (General Notification and Reporting Requirements). The General Provisions are not included in this permit, but can be obtained from the Department upon request.

#### NSPS Subpart Db - Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units

The boiler shall comply with all applicable requirements of 40 CFR 60, Subpart Db adopted by reference in Rule 62-204.800(7)(b), F.A.C. Inapplicable provisions have been deleted in the following conditions, but the numbering of the original rules has been preserved for ease of reference. The term "Administrator" when used in 40 CFR 60 shall mean the Department's Secretary or the Secretary's designee. Department notes related to the Subpart Db requirements are shown in *italics* immediately following the section to which they refer.

#### § 60.40b Applicability and Delegation of Authority

(a) The affected facility to which this subpart applies is each steam generating unit that commences construction, modification, or reconstruction after June 19, 1984, and that has a heat input capacity from fuels combusted in the steam generating unit of greater than 100 million Btu/hour.

{Note: With a maximum capacity of 211 MMBtu per hour, Boiler 16 is an affected unit subject to NSPS Subpart Db.}

#### § 60.41b Definitions

"Annual capacity factor" means the ratio between the actual heat input to a steam generating unit from the fuels listed in §§60.42b(a), 60.43b(a), or 60.44b(a), as applicable, during a calendar year and the potential heat input to the steam generating unit had it been operated for 8,760 hours during a calendar year at the maximum steady state design heat input capacity. In the case of steam generating units that are rented or leased, the actual heat input shall be determined based on the combined heat input from all operations of the affected facility in a calendar year.

"Distillate oil" means fuel oils that contain 0.05 weight percent nitrogen or less and comply with the specifications for fuel oil numbers 1 and 2, as defined by the American Society of Testing and Materials in ASTM D396-78, Standard Specifications for Fuel Oils (incorporated by reference -see §60.17).

"Very low sulfur oil" means an oil that contains no more than 0.5 weight percent sulfur or that, when combusted without sulfur dioxide emission control, has a sulfur dioxide emission rate equal to or less than 215 ng/J (0.5 lb/million Btu) heat input.

"Conventional technology" means wet flue gas desulfurization (FGD) technology, dry FGD technology, atmospheric fluidized bed combustion technology, and oil hydro-desulfurization technology.

"Emerging technology" means any sulfur dioxide control system that is not defined as a conventional technology under this section, and for which the owner or operator of the facility has applied to the Administrator and received approval to operate as an emerging technology under §60.49b(a)(4).

#### § 60.42b Standard for Sulfur Dioxide

(j) Percent reduction requirements are not applicable to affected facilities combusting only very low sulfur oil. The owner or operator of an affected facility combusting very low sulfur oil shall demonstrate that the oil meets the definition of very low sulfur oil by: (2) maintaining fuel receipts as described in §60.49b(r).

#### SECTION IV. APPENDIX Db

#### NSPS SUBPART Db REQUIREMENTS FOR BOILERS

#### § 60.43b Standard for Particulate Matter

#### § 60.43b Standard for Particulate Matter

{Note: On March 1<sup>st</sup>, the Department received an email from EPA Region 4 clarifying the February 2006 revisions to NSPS Subpart Db for industrial boilers. If the facility combusts only oil containing no more than 0.3% sulfur by weight, the revisions now exempt affected facilities constructed, reconstructed, or modified after February 18, 2005 from particulate matter and opacity limits. Boiler 16 is permitted to fire only natural gas or distillate oil containing no more than 0.05% sulfur by weight. In accordance with § 60.46b(i), compliance must be demonstrated obtaining fuel supplier certifications of sulfur content.}

#### § 60.44b Standard for Nitrogen Oxides

- (k) Affected facilities that meet the criteria described in paragraphs (j) (1), (2), and (3) of this section, and that have a heat input capacity of 73 MW (250 million Btu/hour) or less, are not subject to the nitrogen oxides emission limits under this section.
- (j) The sub-paragraphs in paragraph (j) state:
  - (1) Combust, alone or in combination, only natural gas, distillate oil, or residual oil with a nitrogen content of 0.30 weight percent or less;
  - (2) Have a combined annual capacity factor of 10 percent or less for natural gas, distillate oil, and residual oil with a nitrogen content of 0.30 weight percent or less; and
  - (3) Are subject to a Federally enforceable requirement limiting operation of the affected facility to the firing of natural gas, distillate oil, and/or residual oil with a nitrogen content of 0.30 weight percent or less and limiting operation of the affected facility to a combined annual capacity factor of 10 percent or less for natural gas, distillate oil, and residual oil and a nitrogen content of 0.30 weight percent or less.

{Note: The boiler is authorized to fire only natural gas and distillate oil ( $\leq 0.05\%$  sulfur by weight). The permit restricts the annual capacity to no more than 10%. Therefore, there is no applicable NOx standard.}

#### § 60.45b Compliance and Performance Test Methods and Procedures for Sulfur Dioxide

(j) The owner or operator of an affected facility that combusts very low sulfur oil is not subject to the compliance and performance testing requirements of this section if the owner or operator obtains fuel receipts as described in §60.49b(r).

#### § 60.46b Compliance and Performance Test Methods and Procedures for Particulate Matter and Nitrogen Oxides

(i) Units burning only oil that contains no more than 0.3 weight percent sulfur or liquid or gaseous fuels with a potential sulfur dioxide emission rates of 140 ng/J (0.32 lb/MMBtu) heat input or less may demonstrate compliance by maintaining fuel supplier certifications of the sulfur content of the fuels burned.

{Note: There are no applicable standards for particulate matter or nitrogen oxides.}

#### § 60.47b Emission Monitoring for Sulfur Dioxide

(f) The owner or operator of an affected facility that combusts very low sulfur oil is not subject to the emission monitoring requirements of this section if the owner or operator obtains fuel receipts as described in §60.49b(r).

#### § 60.48b Emissions Monitoring for Particulate Matter and Nitrogen Oxides

{Note: There are no applicable standards for particulate matter or nitrogen oxides. Therefore, continuous monitoring is not required.}

#### § 60.49b Reporting and Recordkeeping Requirements

(a) The owner or operator of each affected facility shall submit notification of the date of initial startup, as provided by §60.7. This notification shall include:

#### SECTION IV. APPENDIX Db

#### NSPS SUBPART Db REQUIREMENTS FOR BOILERS

- (1) The design heat input capacity of the affected facility and identification of the fuels to be combusted in the affected facility.
- (2) If applicable, a copy of any §§ 60.42b(d)(1), 60.43b(a)(2), (a)(3)(iii), (c)(2)(ii), (d)(2)(iii), 60.44b(c), (d), (e), (i), (j), (k), 60.45b(d), (g), 60.46b(h), or 60.48b(i).
- (3) The annual capacity factor at which the owner or operator anticipates operating the facility based on all fuels fired and based on each individual fuel fired.

{Note: The permittee has previously complied with the above initial requirement.}

- (o) All records required under this section shall be maintained by the owner or operator of the affected facility for a period of 2 years following the date of such record.
- (p) The owner or operator of an affected facility described in §60.44b(j) or (k) shall maintain records of the following information for each steam generating unit operating day:
  - (1) Calendar date,
  - (2) The number of hours of operation, and
  - (3) A record of the hourly steam load.
- (q) The owner or operator of an affected facility described in §60.44b(j) or §60.44b(k) shall submit to the Administrator on a quarterly basis:
  - (1) The annual capacity factor over the previous 12 months;
  - (2) The average fuel nitrogen content during the quarter, if residual oil was fired; and
  - (3) If the affected facility meets the criteria described in §60.44b(j), the results of any nitrogen oxides emission tests required during the quarter, the hours of operation during the quarter, and the hours of operation since the last nitrogen oxides emission test.
- (r) The owner or operator of an affected facility who elects to demonstrate that the affected facility combusts only very low sulfur oil under Sec. 60.42b(j)(2) shall obtain and maintain at the affected facility fuel receipts from the fuel supplier which certify that the oil meets the definition of distillate oil as defined in Sec. 60.41b. For the purposes of this section, the oil need not meet the fuel nitrogen content specification in the definition of distillate oil. Quarterly reports shall be submitted to the Administrator certifying that only very low sulfur oil meeting this definition was combusted in the affected facility during the preceding quarter.

#### SECTION IV. APPENDIX GC

#### GENERAL CONDITIONS

The permittee shall comply with the following general conditions from Rule 62-4.160, F.A.C.

- 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, 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 and 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 an 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 and 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.

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 non-compliance 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 for 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

#### SECTION IV. APPENDIX GC

#### **GENERAL CONDITIONS**

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 also constitutes:
  - a. Determination of Best Available Control Technology ();
  - b. Determination of Prevention of Significant Deterioration (); and
  - c. Compliance with New Source Performance Standards (X).

{Permitting Note: Based on the enforceable restrictions in this permit, Boiler 16 is not longer subject to PSD review.}

- 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 dates 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.

#### SECTION IV. APPENDIX SC

#### STANDARD CONDITIONS

{Permitting Note: Unless otherwise specified in the permit, the following conditions apply to all emissions units and activities at the facility.}

#### **EMISSIONS AND CONTROLS**

- 1. <u>Plant Operation Problems</u>: If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by fire, wind or other cause, the permittee shall notify each Compliance Authority as soon as possible, but at least within one working day, excluding weekends and holidays. The notification shall include: pertinent information as to the cause of the problem; steps being taken to correct the problem and prevent future recurrence; and, where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with the conditions of this permit or the regulations. [Rule 62-4.130, F.A.C.]
- 2. <u>Circumvention</u>: The permittee shall not circumvent the air pollution control equipment or allow the emission of air pollutants without this equipment operating properly. [Rule 62-210.650, F.A.C.]
- 3. Excess Emissions Allowed: Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]
- 4. Excess Emissions Prohibited: Excess emissions caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure that may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]
- 5. Excess Emissions Notification: In case of excess emissions resulting from malfunctions, the permittee shall notify the Department or the appropriate Local Program in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department. [Rule 62-210.700(6), F.A.C.]
- 6. <u>VOC or OS Emissions</u>: No person shall store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department. [Rule 62-296.320(1), F.A.C.]
- 7. Objectionable Odor Prohibited: No person shall cause, suffer, allow or permit the discharge of air pollutants, which cause or contribute to an objectionable odor. An "objectionable odor" means any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance. [Rules 62-296.320(2) and62-210.200(203), F.A.C.]
- 8. <u>General Visible Emissions</u>: No person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity equal to or greater than 20 percent opacity. This regulation does not impose a specific testing requirement. [Rule 62-296.320(4)(b)1, F.A.C.]
- 9. <u>Unconfined Particulate Emissions</u>: During the construction period, unconfined particulate matter emissions shall be minimized by dust suppressing techniques such as covering and/or application of water or chemicals to the affected areas, as necessary. [Rule 62-296.320(4)(c), F.A.C.]

#### **TESTING REQUIREMENTS**

10. Required Number of Test Runs: For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured; provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five-day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five-day period allowed for the test, the Secretary or his or her designee may accept the results of two complete runs as proof of compliance, provided that the arithmetic mean of the two complete runs is at least 20% below the allowable emission limiting standard. [Rule 62-297.310(1), F.A.C.]

#### STANDARD CONDITIONS

- 11. Operating Rate During Testing: Testing of emissions shall be conducted with the emissions unit operating at permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impractical to test at permitted capacity, an emissions unit may be tested at less than the maximum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test rate until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. [Rule 62-297.310(2), F.A.C.]
- 12. <u>Calculation of Emission Rate</u>: For each emissions performance test, the indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule. [Rule 62-297.310(3), F.A.C.]
- 13. Test Procedures: Tests shall be conducted in accordance with all applicable requirements of Chapter 62-297, F.A.C.
  - a. Required Sampling Time. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes. The minimum observation period for a visible emissions compliance test shall be thirty (30) minutes. The observation period shall include the period during which the highest opacity can reasonably be expected to occur.
  - b. Minimum Sample Volume. Unless otherwise specified in the applicable rule or test method, the minimum sample volume per run shall be 25 dry standard cubic feet.
  - c. Calibration of Sampling Equipment. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1, F.A.C.

[Rule 62-297.310(4), F.A.C.]

#### 14. Determination of Process Variables

- a. Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.
- b. Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.

[Rule 62-297.310(5), F.A.C.]

- 15. <u>Sampling Facilities</u>: The permittee shall install permanent stack sampling ports and provide sampling facilities that meet the requirements of Rule 62-297.310(6), F.A.C.
- 16. <u>Test Notification</u>: The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator. [Rule 62-297.310(7)(a)9, F.A.C.]
- 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.]
- 18. Test Reports: The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test. The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed. The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the

#### SECTION IV. APPENDIX SC

#### STANDARD CONDITIONS

test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:

- 1. The type, location, and designation of the emissions unit tested.
- 2. The facility at which the emissions unit is located.
- 3. The owner or operator of the emissions unit.
- 4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
- 5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
- 6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
- 7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
- 8. The date, starting time and duration of each sampling run.
- 9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
- 10. The number of points sampled and configuration and location of the sampling plane.
- 11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
- 12. The type, manufacturer and configuration of the sampling equipment used.
- 13. Data related to the required calibration of the test equipment.
- 14. Data on the identification, processing and weights of all filters used.
- 15. Data on the types and amounts of any chemical solutions used.
- 16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
- 17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
- 18. All measured and calculated data required to be determined by each applicable test procedure for each run.
- 19. The detailed calculations for one run that relate the collected data to the calculated emission rate.
- 20. The applicable emission standard and the resulting maximum allowable emission rate for the emissions unit plus the test result in the same form and unit of measure.
- 21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

[Rule 62-297.310(8), F.A.C.]

#### RECORDS AND REPORTS

- 19. Records Retention: All measurements, records, and other data required by this permit shall be documented in a permanent, legible format and retained for at least five (5) years following the date on which such measurements, records, or data are recorded. Records shall be made available to the Department upon request. [Rules 62-4.160(14) and 62-213.440(1)(b)2, F.A.C.]
- 20. Annual Operating Report: The permittee shall submit an annual report that summarizes the actual operating rates and emissions from this facility. Annual operating reports shall be submitted to the Compliance Authority by March 1st of each year. [Rule 62-210.370(2), F.A.C.]

ATTACHMENT OK-EU1-IV3

ALTERNATIVE METHODS OF OPERATION

#### **ATTACHMENT OK-EU1-IV3**

#### ALTERNATIVE METHODS OF OPERATION

Okeelanta Mill Boiler No. 16 is a Babcock and Wilcox Model No. FM 120-97 package boiler with a maximum steam production rate of 150,000 pounds per hour (24-hour average). The unit is fired with pipeline-quality natural gas and very low sulfur distillate oil (0.05 percent sulfur, maximum). The heat input rate is 211 MMBtu per hour when firing natural gas and 202 MMBtu per hour when firing very low sulfur distillate oil.

The hours of operation are not limited (8,760 hours per year). Boiler No. 16 is permitted to fire no more than 1,301,118 gallons of very low sulfur distillate oil during any consecutive 12 months.

ATTACHMENT OK-EU1-F1.10
MAXIMUM EMISSIONS FROM BOILER NO. 16 - OKEELANTA CORPORATION

	Natural Gas Combustion							No. 2 Fuel Oil Combustion							Maximum Hourly	Maximum Annual
Regulated	Emission	Emission	Ref.	Activity Factor <sup>a</sup> (MMBtu/hr)		Hourly Emissions (lb/hr)	Annual Emissions (TPY)	Emission Factor (lb/1000 gal)(		Ref.	Activity Factor <sup>a</sup>	Activity Factor <sup>b</sup>	Hourly	Annual	ons to Either Fuel <sup>c</sup>	Emissions Due to Either Fuel <sup>c</sup> (TPY)
Pollutant	Factor	Factor											Emissions	Emissions		
	(lb/10 <sup>6</sup> scf)	(lb/MMBtu)									(MMBtu/hr)	(MMBtu/yr)	(lb/hr)	(TPY)		
Particulate Matter (PM)	1.9	1.86E-03	1	211	184,836	0.39	0.17		0.03	4	202	176,952	6.06	2.65	6.06	2.65
Particulate Matter (PM <sub>10</sub> )	1.9		1	211	184,836	0.39	0.17		0.03		202	176,952	6.06	2.65	6.06	2.65
Sulfur dioxide (SO <sub>2</sub> )		1 005 03	4	211	184,836	0.21	0.09	7.85	0.06		202	176,952	12.12	5.31	12.12	5.31
Nitrogen oxides (NO <sub>x</sub> )		0.20	7	211	184,836	42.20	18.48		0.20	4	202	176,952	40.40	17.70	42.20	18.48
Carbon monoxide (CO)		0.11	7	211	184,836	23.21	10.17		0.11	4	202	176,952	22.22	9.73	23.21	10.17
Volatile Organic Compounds (VOC)	·	0.03	2	211	184,836	6.33	2.77		0.03	2	202	176,952	6.06	2.65	6.33	2.77
Sulfuric acid mist (SAM)		6.13E-05	3	211	184,836	1.29E-02	5.66E-03		2.57E-03	6	202	176,952	0.52	0.23	0.52	0.23
Lead (Pb)	5.E-04	4.90E-07	1	211	184,836	1.03E-04	4.53E-05		9.00E-06	5	202	176,952	1.82E-03	7.96E-04	1.82E-03	7.96E-04
Mercury (Hg)	2.6E-04	2.55E-07	1	211	184,836	5.38E-05	2.36E-05		3.00E-06	5	202	176,952	6.06E-04	2.65E-04	6.06E-04	2.65E-04
Beryllium (Be)	1.2E-05	1.18E-08	1	211	184,836	2.49E-06	1.09E-06		3.00E-06	5	202	176,952	6.06E-04	2.65E-04	6.06E-04	2.65E-04
Fluorides (Fl)																

#### References:

- 1. Factors for natural gas combustion from AP-42, Tables 1.4-1, 1.4-2 and 1.4-4 (7/98). Factors were converted to lb/MMBtu by dividing by 1,020 Btu/scf.
- 2. Based on emission guarantees from vendor.
- 3. Based on similar derivation of sulfuric acid mist from AP-42 for fuel oil. 5% of SO<sub>2</sub> becomes SO<sub>3</sub> then take into account the ratio of sulfuric acid mist and gaseous sulfate molecular weights (98/80).
- 4. Based on Permit No. 0990005-009-AC.
- 5. Factors for No. 2 fuel oil combustion, AP-42 Table 1.3-1, 1.3-3, and 1.3-10 (9/98). A heating value of 136,000 Btu/gal and a maximum sulfur content of 0.05% were used for the No. 2 fuel oil.
- 6. The emission factor for SO<sub>3</sub> emissions from a No. 2 fuel fired boiler with low NOx burners (5.7S lb/10<sup>3</sup> gal where S is the sulfur content) was multiplied by the ratio of sulfuric acid mist and gaseous sulfate molecular weights (98/80).
- 7. Natural gas emission factor based on worst-case fuel, i.e. fuel oil factor.

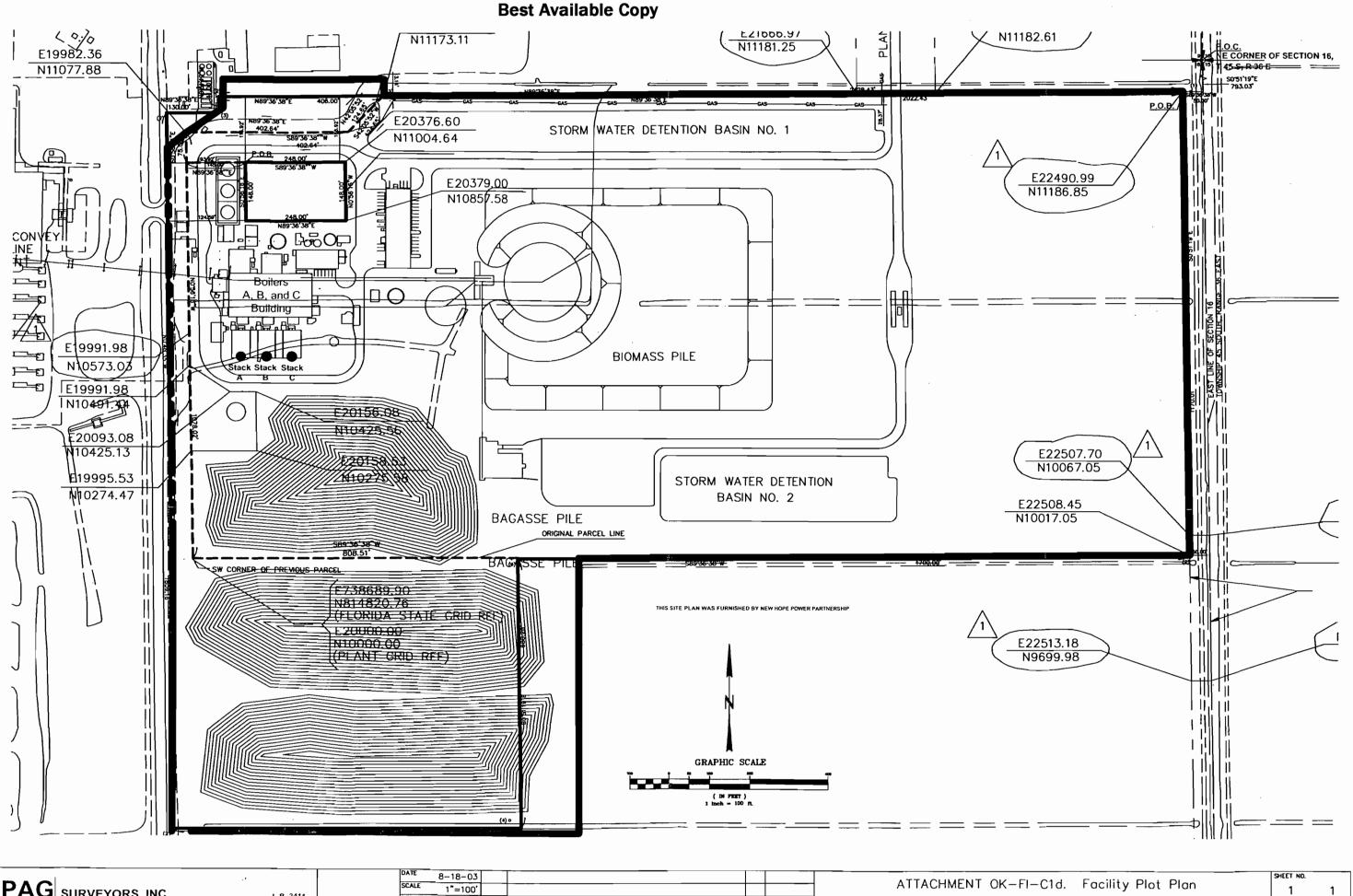
#### Footnotes:

- <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 10% annual capacity factor: fuel oil usage of 1,301,118 gal/yr or 176,952 MMBtu/yr and natural gas usage of 181.2 MMscf/yr or 184,836 MMBtu/yr.
- <sup>c</sup> Maximum emissions predicted for either natural gas combustion only or No. 2 fuel oil combustion only.

#### Sample Calculations:

Hourly Emissions = Emission Factor (lb/MMBtu) x Activity Factor (MMBtu/yr)

Annual Emissions = Activity Factor (MMBtu/yr) x Emission Factor (lb/MMBtu) / 2,000 (lb/ton)



PAG SURVEYORS, INC. NEW HOPE POWER PARTNERSHIP P.O. BOX 9 SOUTH BAY, FL 33493 1016 SOUTHEAST 4TH STREET BELLE GLADE, FL 33430-4330 PHONE (561) 996-6615 CHECKED PAG NO. PALM BEACH COUNTY, 03-3-182 REVISIONS DATE FLORIDA