

**Golder Associates Inc.**

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OCT 25 2001



BUREAU OF AIR REGULATION

October 23, 2001

Florida Department of Environmental Protection  
Bureau of Air Regulation, New Source Review Section  
2600 Blair Stone Road, MS 5500  
Tallahassee, Florida 32399-2400

RECEIVED<sup>0137578</sup>

OCT 25 2001

BUREAU OF AIR REGULATION

Attention: Mr. A. A. Linero, P.E.

RE: OKEELANTA CORPORATION (ID NO. 0990005)  
OKEELANTA CORP. MILL AND REFINERY  
CONVERSION OF BOILER NO. 16 TO GAS  
PERMIT NO. 0990005-009-AC; PSD-FL-169A

Dear Mr. Linero:

Okeelanta Corporation has received the revised Draft Permit and Technical Evaluation and Preliminary Determination for the above referenced PSD permit application, issued by the Department on September 25, 2001. Okeelanta and its consultant, Golder Associates Inc. (Golder), have reviewed the revised draft permit, and offer the following comments.

**Technical Evaluation, Draft BACT, and Preliminary Determination**

1.7. Table 1A summarizes PSD applicability and DEP included this table in the Public Notice of Intent to Issue attached to the draft permit. The table indicates potential emissions of 96 TPY for NO<sub>x</sub> and 35 TPY for SO<sub>2</sub>. Our calculations indicate that the potential tons per year increase for NO<sub>x</sub> is 94 TPY, and for SO<sub>2</sub> is 39.6 TPY (see attached spreadsheet using permitted allowable emissions and emission factors referenced in draft permit). The Notice of Intent to Issue published by Okeelanta on September 29, 2001 actually stated a potential SO<sub>2</sub> emission rate of 39.38 TPY and a potential NO<sub>x</sub> emission of 113.77 TPY based on the calculations in the application.

2.2. The reference to "NSPS Subpart Db – Stationary Gas Turbines" should read "NSPS Subpart Db – Industrial, Commercial and Institutional Steam Generating Units".

3.6. Note that our reading of NSPS Subpart Db concerning application of the 30-day NO<sub>x</sub> standard in 40 CFR 60.44b(h) and 60.46b(a), is that the 30-day rolling average NO<sub>x</sub> standard applies at all times, including periods of startup, shutdown and malfunction (SSM). As a result, the permit conditions and appendix conditions that reference the 30-day rolling average limit may need to be clarified accordingly. The SSM data exclusion provisions for NO<sub>x</sub> outlined in section 3.6.b. apply to the 24-hour block average NO<sub>x</sub> standard since this standard is a BACT-imposed standard and is not related to the NSPS standard (see 40 CFR 60.44b(i)).

**Draft Permit**

**Section III. Mill Boiler No. 16**

4. Since the steam production limit is in terms of a 24-hour block average, the heat input limitations should also be on a 24-hour block average. Otherwise, the hourly heat input limitations would limit the boiler to 150,000 lb/hr steam for each hour. As an alternative, the heat input rates could be indicated as design specifications, instead of maximum not to exceed limitations.

11.a. The VE limitation should be specified as a 6-minute "block" average, as in condition 6.c.

11.b. To clarify the allowance for exclusion of NOx hourly average emission rate values during startups, shutdowns, and unavoidable malfunctions, "continuous NOx" in the second sentence can be replaced with "24-hour block average" compliance determinations.

**Appendix BD**

Page BD-1: Footnote "b" should read "Compliance is based on a 30-day rolling average and a 24-hour block average as determined..."

**Appendix Db**

Page Db-2: Section 60.44b(h) and 60.46b(a) – indicates that the 30-day rolling NOx standard applies at all times, including periods of startup, shutdown and malfunction. See comment above referring to SSM exclusion.

Section 60.44b(h) – this provision applies only to the 30-day rolling average limit. Please add a note stating that no more than two hourly average NOx emission rate values may be excluded in any 24-hour period due to startup, shutdown, or unavoidable malfunctions for compliance determinations with the 24-hour block average.

Section 60.44b(i) – the note following this provision should state that the 24-hour average is a "block" average.

Section 60.46b(b) – can be deleted, PM emission standards do not apply.

Section 60.46b(d) – Subparagraphs (1) through (6) can be deleted, as PM testing is not required. The note at the end of this provision incorrectly states that an initial PM test using Method 5 is required and an emission limit exists.

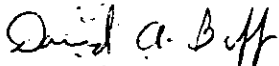
page Db-4: Section 60.48b(f) – The note after this provision should state that the 24-hour average is a block average.

page Db-5: Section 60.49b(g) – The note after this provision should state that the 24-hour average is a block average.

Thank you for consideration of these comments. Please call or write if any questions about this request.

Sincerely,

GOLDER ASSOCIATES INC.



David A. Buff, P.E., Q.E.P.  
Principal Engineer  
Florida P. E. #19011  
SEAL

DB/SLWjkw

Enclosures

cc: M. Capone  
D. Dee  
B. Tarr

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*O. Graziano, Palm Beach Co.*  
*O. Knowlton, SD*

Table 2-1. Future Maximum Emissions from Boiler No. 16, Okeelanta Corporation (revised 10/17/01)

Regulated Pollutant	Natural Gas				No. 2 Fuel Oil				Annual Emissions With Maximum Fuel Oil Firing <sup>d</sup> (TPY)	Maximum Annual Emissions Due to Any Combination <sup>e</sup> (TPY)
	Emission Factor (lb/MMBtu)	Activity Factor <sup>a</sup> (MMBtu/hr)	Hourly Emissions (lb/hr)	Annual Emissions <sup>b</sup> (TPY)	Emission Factor (lb/MMBtu)	Activity Factor <sup>a</sup> (MMBtu/hr)	Hourly Emissions (lb/hr)	Annual Emissions <sup>c</sup> (TPY)		
Particulate Matter (PM)	0.002	211	0.42	1.85	0.03	202	6.06	20.40	20.83	20.83
Particulate Matter (PM <sub>10</sub> )	0.002	211	0.39	1.72	0.03	202	6.06	20.40	20.80	20.80
Sulfur dioxide (SO <sub>2</sub> )	0.001	211	0.12	0.54	0.058	202	11.72	39.44	39.57	39.57
Nitrogen oxides (NO <sub>x</sub> )	0.06	211	12.66	55.45	0.12	202	24.24	81.60	94.43	94.43
Carbon monoxide (CO)	0.10	211	21.10	92.42	0.11	202	22.22	74.80	96.19	96.19
VOC	0.03	211	6.33	27.73	0.03	202	6.06	20.40	26.82	27.73
Sulfuric acid mist (SAM)	3.60E-05	211	7.60E-03	0.03	0.0026	202	0.52	1.75	1.75	1.75
Lead (Pb)	4.90E-07	211	1.03E-04	4.53E-04	9.00E-06	202	1.82E-03	6.12E-03	6.23E-03	6.23E-03
Mercury (Hg)	2.55E-07	211	5.38E-05	2.36E-04	3.00E-06	202	6.06E-04	2.04E-03	2.09E-03	2.09E-03
Beryllium (Be)	1.18E-08	211	2.49E-06	1.09E-05	3.00E-06	202	6.06E-04	2.04E-03	2.04E-03	2.04E-03
Fluorides (Fl)	--	--	--	--	--	--	--	--	--	--

## Footnotes:

<sup>a</sup> The proposed maximum permitted heat input rate is 211 MMBtu/hr for natural gas and 202 MMBtu/hr for fuel oil.

<sup>b</sup> Based on maximum proposed operation of 8,760 hours.

<sup>c</sup> Based on maximum proposed limit for 0.05% sulfur fuel oil of 10,000,000 gallons/yr, equivalent to 6,733 hours per year at 202 MMBtu/hr (1,360,000 MMBtu/yr).

<sup>d</sup> Based on emissions due to maximum fuel oil usage (10,000,000 gal/yr or 1,360,000 MMBtu/yr) and the remaining due to natural gas (427,697 MMBtu/yr).

<sup>e</sup> Maximum emissions predicted for either natural gas combustion only, No. 2 fuel oil combustion only, or a combination of No. 2 fuel oil and natural gas combustion.