

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
NOTICE OF PERMIT

In the matter of an
Application for Permit by:

DER File No. AC 50-191876
Palm Beach County

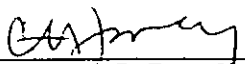
Mr. Pablo A. Carreno
Director of Mill and Refinery Operations
Okeelanta Corporation
P. O. Box 86
South Bay, Florida 33493

Enclosed is Permit Number AC 50-191876 to construct an oil fired steam boiler (No. 16) at your sugar mill located on U.S. Highway 27, 6 miles south of South Bay, Palm Beach County, Florida, issued pursuant to Section(s) 403, Florida Statutes.

Any party to this Order (permit) has the right to seek judicial review of the permit pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400; 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 of Appeal must be filed within 30 days from the date this Notice is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION



C. H. Fancy, P.E., Chief
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, FL 32399-2400
904-488-1344

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF PERMIT and all copies were mailed before the close of business on 7-30-91 to the listed persons.

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED,
on this date, pursuant to
§120.52(11), Florida Statutes,
with the designated Department
Clerk, receipt of which is hereby
acknowledged.


(Clerk)

7-30-91
(Date)

Copies furnished to:

David Knowles, South Dist.
Isidore Goldman SE Dist.
Jim Stormer, Palm Beach Co.
David Buff, P.E.
Jewell Harper, EPA
C. Shaver, NPS

Final Determination

Okeelanta Corporation
Palm Beach County
South Bay, Florida

Boiler No. 16
Permit No. AC 50-191876
PSD-FL-169

Department of Environmental Regulation
Division of Air Resources Management
Bureau of Air Regulation

July 16, 1991

Final Determination

The Technical Evaluation and Preliminary Determination for the permit to construct boiler No. 16 at Okeelanta Corporation's sugar mill that is located approximately 6 miles south of South Bay in Palm Beach County, Florida, was distributed on May 17, 1991. The Notice of Intent to Issue was published in Palm Beach Post on May 31, 1991.

Copies of the evaluation were available for public inspection at the Palm Beach County's environmental office in West Palm Beach and the Department's offices in West Palm Beach, Fort Myers, and Tallahassee.

Comments were submitted by the applicant's engineer, Palm Beach County Health Unit, and the National Park Service. The applicant's engineer requested that the NO_x emission standard of 0.18 lbs/MMBtu be a 30-day rolling average, that the boiler be allowed to operate in March (proposed permit restricted its operation to April through October), and that the steam production limit be at a specific steam pressure and temperature. Palm Beach County Health Unit requested they be included in the notification and reporting requirements of the permit for this boiler. The National Park Service requested lower sulfur fuel be required for the boiler, that a cumulative modeling analysis be included in the current review of another application for a major facility in this area, and that the air quality related value (AQRVs) analyses be considered in determining this project's impact on Everglades National Park.

The Department's response to these comments are as follows. Specific condition No. 5 was revised to note the NO_x standard of 0.18 lbs/MMBtu is to be a 30-day rolling average, which is consistent with the new source performance standard. Specific condition No. 6 was reworded to require the permittee to calculate the 30-day rolling average concentration for NO_x . Specific condition No. 10 was changed to allow the boiler to operate from March through October. Modeling showed that the ambient air standards would not be violated with the proposed boiler operating during this period.

The maximum steam pressure and temperature limits were removed from Specific Condition 11. The steam production and fuel input limits given in Specific Condition 9 will provide the Department with reasonable assurance that the permitted heat input rate of 205 MMBtu/hr for this boiler will not be exceeded.

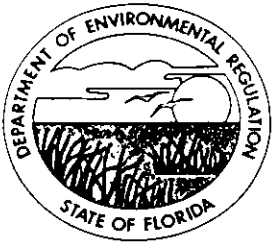
Specific Conditions Nos. 7, 13, and 14 were amended to include the Palm Beach County Health Unit in the notification and reporting requirements.

The Department has required lower sulfur (0.2%) fuel oil to be used in larger, continuously operated sources. However, the use of fuel oil containing 0.3% sulfur in the proposed boiler, which will be

operated during the off season of the sugar industry, is considered appropriate for this situation.

The concurrent review of an application for a major source in the area is being processed separately from this application. Consideration will be given toward requiring a cumulative modeling analysis and an AQRV analysis for this major source. However, the Department does not believe an AQRV analysis is justified for this proposed boiler because of its small predicted impact (0.03 ug/m³, annual average) on the Everglades National Park Class I area.

The final action of the Department will be to issue construction permit No. AC50-191876 (PSD-FL-169) as proposed in the Technical Evaluation and Preliminary Determination except for the changes discussed above.



Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Lawton Chiles, Governor

Carol M. Browner, Secretary

PERMITTEE:

Okeelanta Corporation
P.O. Box 86
South Bay, Florida 33493

Permit Number: AC 50-191876
PSD-FL-169

Expiration Date: March 1, 1993
County: Palm Beach
Latitude/Longitude: 26°35'00" N
80°45'00" W

Project: Oil Fired Steam Boiler
No. 16

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 17-2 and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawings, plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

Construction of a 150,000 lbs steam/hr, No. 2 oil fired, 205 MMBtu/hr heat input Babcock & Wilcox Model FM 120-97 package boiler using Coen's LO-NO_x burners and designed for 12% flue gas recirculation (or equivalent boiler with controls) equipped with a 5 ft. diameter by 75 ft. high stack. The boiler will be located at the permittee's existing sugar mill (SIC 2061) that is approximately 6 miles south of South Bay, Palm Beach County, Florida off of U.S. Highway 27. The UTM coordinates of this site are Zone 17, 524.9 km E and 2940.1 km N.

The source shall be constructed in accordance with the permit application, plans, documents, amendments and drawings, except as otherwise noted in the General and Specific Conditions.

Attachments are listed below:

1. Application received Jan. 29, 1991.
2. KBN letter dated Feb. 19, 1991.
3. BACT Determination.
4. KBN letter dated June 5, 1991.
5. Palm Beach County Health Unit letter dated June 5, 1991.
6. NPS letter dated July 1, 1991.
7. KBN letter dated July 9, 1991.

PERMITTEE:
Okeelanta Corporation

Permit Number: AC 50-191876
PSD-FL-169
Expiration Date: March 1, 1993

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to the 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 of 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 acknowledgement 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

PERMITTEE:
Okeelanta Corporation

Permit Number: AC 50-191876
PSD-FL-169
Expiration Date: March 1, 1993

GENERAL CONDITIONS:

compliance with the conditions of the permit and when required by Department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:

- a. Have access to and copy any records that must be kept under the conditions of the permit;
- b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
- c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

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

8. If, for any reasons, 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 permitting source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida

PERMITTEE:
Okeelanta Corporation

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GENERAL CONDITIONS:

Statues. 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 the 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 17-4.120 and 17-30.300, 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 Determination of Prevention of Significant Deterioration (PSD), Determination of Best Available Control Technology (BACT), and Compliance with New Source Performance Standards (NSPS).

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 stipulation 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 for 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.

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Okeelanta Corporation

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Expiration Date: March 1, 1993

GENERAL CONDITIONS:

- c. Records of monitoring information shall include:
- the date, exact place, and time of sampling or measurements;
 - the person responsible for performing the sampling or measurements;
 - the dates analyses were performed;
 - the person responsible for performing the analyses;
 - the analytical techniques or methods used; and
 - the results of such analyses.

15. When request 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.

SPECIFIC CONDITIONS:

Construction Details

1. The boiler shall be a flue gas recirculation type and equipped with low NO_x distillate oil burners. The design shall be for a heat release rate greater than 70,000 Btu/hr-ft³.
2. The stack sampling facilities shall comply with F.A.C. Rule 17-2.700(4).
3. The 5 ft. diameter stack shall have a minimum height of 75 ft.
4. The boiler shall be equipped with instruments to measure the opacity of the stack emissions and the steam production, temperature, and pressure.

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Okeelanta Corporation

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SPECIFIC CONDITIONS:

Emission Restrictions

5. Air pollutant emissions shall not exceed any of the quantities listed below:

Pollutant	lbs/MMBtu	Emissions		Compliance Test Method
		lbs/hr	TPY	EPA Test Methods (July 1, 1990)
PM	0.054	11.0	23.1	5
PM10	0.027	5.5	11.6	201 or 201A
SO ₂	0.51	105.5	132.9	Certified Fuel Analysis
NO _x	0.18*	36.9	77.5	7, 7A, 7E
CO	0.20	41.0	86.1	10
VOC	0.09	18.5	38.7	25
VE	20% opacity (6-minute average) except 27% (max.) for 1 6-minute period/hr.			9

* 30-day rolling average as determined from the NO_x monitor data.

Compliance Requirements

6. Particulate matter, visible emissions, and nitrogen oxides emissions tests shall be conducted annually while the boiler is operating between 90-100% of its permitted capacity (135-150,000 lbs steam/hr). The volume and sulfur content of each fuel oil delivery shall be kept in a log for a minimum of 3 years. The continuous emissions monitoring data will be evaluated to determine the highest concentration of NO_x in lbs/MMBtu for any 30-day rolling average during the proceeding year. Tests for other pollutants may be required when the Department has good reason to believe the emission standard is being exceeded.

Federal Requirements

7. Boiler No. 16 shall comply with all applicable requirements of 40 CFR 60, including Subpart Db - Standards of Performance for Industrial-Commercial-Institutional Steam Generating Unit (December 18, 1989).

40 CFR 60.7, Notification and record keeping. Timely notification of the items listed to the Department (South District), Palm Beach County Public Health Unit (PBCPHU), and EPA.

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Okeelanta Corporation

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SPECIFIC CONDITIONS:

40 CFR 60.8, Compliance tests. Minimum of 30 days prior notice of the initial compliance tests which must be conducted between 60 to 180 days of initial startup of the source to the Department and EPA.

40 CFR 60.42b, Standard for sulfur dioxide. Sulfur content of the No. 2 distillation oil fuel shall not exceed 0.5%. Annual off-season average shall not exceed 0.3% sulfur. The permittee shall maintain fuel analysis or receipts to confirm compliance with this condition.

40 CFR 60.43b, Standard for particulate matter. Visible emissions shall not exceed 20% opacity (6-minute average), except for one 6-minute period per hour of not more than 27% opacity.

40 CFR 60.44b, Standard for nitrogen oxides for high heat release boiler No. 16, expressed as NO₂, is 0.20 lbs/MMBtu.

40 CFR 60.45b, Sulfur dioxide compliance tests, fuel receipts or analysis for sulfur content is required to confirm compliance with this condition.

40 CFR 60.46b, Particulate and nitrogen oxides compliance tests. Method 9 test required to determine compliance with the opacity standard. Method 7, 7A, or 7E test for nitrogen oxides.

40 CFR 60.47b, Sulfur dioxide monitoring. Fuel analysis or receipts required to confirm compliance with this condition.

40 CFR 60.48b, Particulate and nitrogen oxides monitoring. Continuous emissions monitor required to measure opacity.

40 CFR 60.49b, Reporting and record keeping requirements. Permittee required to report date of initial start up, design heat input capacity, fuels used, annual capacity factor, performance test data, plan to monitor NO_x, nitrogen content of the distillate oil, opacity, nitrogen dioxide emissions, monitor down time, "F" factor, exceedances, and other information required by this paragraph.

Operation Requirements

8. Only No. 2 fuel oil containing a maximum of 0.5% sulfur (off-season average of 0.3% sulfur) shall be used as fuel.

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SPECIFIC CONDITIONS:

9. Maximum heat input to the boiler shall not exceed 1,463 gallons per hour of No. 2 distillate fuel oil (205 MMBtu/hr).
10. The boiler shall not operate for more than 175 days (4,200 hours) during any 12 month period. The boiler shall only operate during the off-season months (March through October).
11. Steam production shall not exceed 150,000 lbs/hr.

Administrative Requirements

12. The permittee shall maintain a log that shows the boiler's operation time, steam production, and fuel consumption.
13. The Department's South District and the PBCPHU shall be notified in writing at least 30 days in advance of the initial compliance test and 15 days in advance of any annual compliance tests to be conducted on this boiler.
14. Stack test results shall be submitted to the Department and the PCBPHU within 45 days of the test.
15. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the Bureau of Air Regulation prior to 60 days before the expiration of the permit (F.A.C. Rule 17-4.090).
16. An application for an operation permit must be submitted to the South District office at least 90 days prior to the expiration date of this construction permit. To properly apply for an operation permit, the applicant shall submit the appropriate application form, fee, certification that construction was completed noting any deviations from the conditions in the construction permit, and compliance test reports as required by this permit (F.A.C. Rules 17-4.055 and 17-4.220).

Issued this 29th day
of July, 1991.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION



Carol M. Browner, Secretary

Best Available Control Technology (BACT) Determination
Okeelanta Corporation
Palm Beach County

The applicant plans to permanently install a 205 MMBtu/hr No. 2 oil-fired steam boiler at their facility 6 miles south of South Bay, Florida. The boiler will be used to supply process steam. The boiler is scheduled to operate during the off-season of April through October (4,200 hours) when the other boilers at this facility are shutdown.

A BACT determination is required for particulates and sulfur dioxide as set forth in the Florida Administrative Code Rule 17-2.600(6) - Emissions Limiting and Performance Standards. In addition, the Department performed a BACT determination for nitrogen oxides (NOx) since those emissions are greater than the PSD significant rate of 40 tons per year.

BACT Determination Request by the Applicant:

Particulate, sulfur dioxide, nitrogen oxides emissions to be controlled by the firing of No. 2 fuel oil with a 0.5% sulfur content.

Date of Receipt of a BACT Application:

January 29, 1991

BACT Determined by DER:

The amount of particulate and sulfur dioxide emissions from the boiler will be limited by the firing of No. 2 fuel oil with a 0.3% off season average and a 0.5% maximum sulfur content.

Nitrogen oxides emissions shall not exceed 0.18 lbs/MMBtu heat input using low NOx burners/flue gas recirculation.

BACT Determination Rationale:

Sulfur in fuel is a primary air pollution concern in that most of the fuel sulfur becomes SO₂ and particulate emissions from fuel burning are related to the sulfur content. The Department has determined that the firing of No. 2 fuel oil with an off-season average of 0.3% sulfur and maximum of 0.5% sulfur content is BACT for particulates and SO₂. These sulfur content limitations are representative of what has been recently established as BACT for oil-fired equipment.

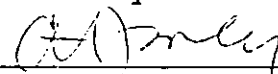
BACT
Okeelanta Corp.
Page Two

The emission rate of nitrogen oxides proposed by the applicant is equivalent to 0.18 pound per million Btu heat input. A review of other BACT determinations for oil fired boilers indicates that the proposed emission level for nitrogen oxides meets or exceeds several of the determinations on record. In addition, this emission level is equivalent to what has been determined to be BACT for oil-fired turbines. Additional NOx control could be provided by using add on control devices such as selective catalytic reduction (SCR) or selective noncatalytic reduction (SNCR). A review of these control technologies indicates a cost effectiveness ranging from \$6802 to \$7321 per ton of NOx removed. These costs exceed those which have been previously judged to be representative of BACT, thereby dismissing these technologies as BACT for this facility. In accordance with these criteria, the applicant's proposed NOx emission rate is justified as BACT for this source.

Details of the Analysis May Be Obtained By Contacting:

G. Preston Lewis, P.E., BACT Coordinator
Department of Environmental Regulation
Bureau of Air Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400


Recommended By:



C. H. Fancy, P.E., Chief
Bureau of Air Regulation

5/17 26, 1991
Date

Approved By:



Carol M. Browner, Secretary
Department of Environmental Regulation

July 29, 1991
Date