Florida Department of Environmental Protection

Southwest District Office
13051 North Telecom Parkway
Temple Terrace, Florida 33637-0926

Rick Scott
Governor

Jennifer Carroll
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Secretary

DRAFT PERMIT

PERMITTEE

Mosaic Fertilizer, LLC
13830 Circa Crossing Drive
Lithia, FL 33547

Authorized Representative:
Mr. Gary N. Davis, Vice President,
Phosphate Operations

Air Permit No. 1050046-030-AC
Permit Expires: 12/31/2012
Site Name: Green Bay Facility
Minor Air Construction Permit
Project Name: Installation of a new boiler

This is the final air construction permit, which authorizes installation of a new 75 mmBtu/hr natural gas fired boiler at this facility. The proposed work will be conducted at the Mosaic Green Bay – A part of the Mosaic Bartow Facility (Standard Industrial Classification No. 2874) located in Polk County at 4390 CR 640 West in Bartow, Florida. The UTM coordinates are Zone 17, 409.5 km East, and 3080.1 km North. As noted in the Final Determination provided with this final permit, no changes or only minor changes and clarifications were made to the draft permit.

This final permit is organized by the following sections:

Section 1. General Information

Section 2. Administrative Requirements and Facility-Wide Specific Conditions

Section 3. Emissions Unit Specific Conditions

Section 4. Appendices

Because of the technical nature of the project, the permit contains numerous acronyms and abbreviations, which are defined in Appendix A of Section 4 of this permit.

This air pollution 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.). The permittee is authorized to conduct the proposed work in accordance with the conditions of this permit. This project is subject to the general preconstruction review requirements in Rule 62-212.300, F.A.C. and is not subject to the preconstruction review requirements for major stationary sources in Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality.

Upon issuance of this final permit, 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 30 days after this order is filed with the clerk of the Department.

Executed in Hillsborough County, Florida

DRAFT

_____ _____

Mara Grace Nasca Effective Date
District Air Program Administrator
Southwest District

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Final Air Permit package (including the Final Determination, the Final Permit and the Appendices) was sent by electronic mail (or a link to these documents made available electronically on a publicly accessible server) with received receipt requested before the close of business on _____ to the persons listed below.

Gary N. Davis, Mosaic Fertilizer, LLC (bo.davis@mosaicco.com)
Rama Iyer, P.E., Mosaic Fertilizer, LLC (rama.iyer@mosaicco.com)

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to Section 120.52(7), Florida Statutes, with the designated agency clerk, receipt of which is hereby acknowledged.

DRAFT

_____ _____

(Clerk) (Date)

Project Description and Proposed Emission Units

This permit authorizes the installation of a new natural gas fired boiler (new EU 073) at the Reverse Osmosis (RO) plant to obtain optimal performance. This project will add the following emissions unit.

ID No.	Emission Unit Description
073	NG fired 75 mmBtu/hr boiler

NOTE - *Please reference the Permit No., Facility ID, and Emission Unit ID in all correspondence, test report submittals, applications, etc.*

Exempt Emission Units/Activities

There is no new exempt/insignificant emission activities associated with the installation of this new boiler.

FACILITY REGULATORY CLASSIFICATION

- The facility is a major source of hazardous air pollutants (HAP).
- The facility has no units subject to the acid rain provisions of the Clean Air Act (CAA).
- The facility is a Title V major source of air pollution in accordance with Chapter 213, F.A.C.
- The facility is a major stationary source in accordance with Rule 62-212.400 (PSD), F.A.C.

PERMIT HISTORY/AFFECTED PERMITS

No previous permits. This is a brand new emission unit.

1. Permitting Authority - The permitting authority for this project is the Florida Department of Environmental Protection (Department), Southwest District's Air Resource Management Section. The Southwest District's mailing address and phone number is:

Florida Department of Environmental Protection
Southwest District Office
Air Resource Management Section
13051 North Telecom Parkway
Temple Terrace, Florida 33637-0926
Telephone: (813) 632-7600

All documents related to applications for permits shall be submitted to the above address.

2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Southwest District Office's Air Resource Management Section (see above mailing address and phone number).

3. Appendices - The following Appendices are attached as part of this permit:

a. Appendix A. Citation Formats and Glossary of Common Terms;
b. Appendix B. General Conditions;
c. Appendix C. Common Conditions;
d. Appendix D. Common Testing Requirements;
e. Best Available Control Technology (BACT) Determination;
f. NSPS Subpart A – General Provisions; and
g. NSPS Subpart Dc

4. Applicable Regulations, Forms and Application Procedures - Unless otherwise specified in this permit, the construction and operation of the subject emissions units shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of: Chapter 403, F.S.; and Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296 and 62-297, F.A.C. Issuance of this permit does not relieve the permittee from compliance with any applicable federal, state, or local permitting or regulations.

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. Modifications - Unless otherwise exempt by rule, the permittee shall not initiate any construction, reconstruction, or modification at the facility and shall not install/modify any pollution control device at the facility without obtaining prior authorization from the Department. Modification is defined as: Any physical change or changes in the method of operations or addition to a facility that would result in an increase in the actual emissions of any air pollutant subject to air regulations, including any not previously emitted, from any emission unit or facility.
[Rules 62-210.200 - Definition of "Modification" and 62-210.300(1)(a), F.A.C.]

7. Annual Operating Report - On or before **April 1** of each year, the permittee shall submit a completed DEP Form 62-210.900(5), "Annual Operating Report for Air Pollutant Emitting Facility" (AOR) for the preceding calendar year. The report may be submitted electronically in accordance with the instructions received with the AOR package sent by the Department, or a hardcopy may be sent to the Compliance Authority.
[Rule 62-210.370(3), F.A.C.]

8. Application for Title V Air Operation Permit Revision - This permit authorizes construction or modification of the permitted emissions unit and initial operation to determine compliance with Department rules. A Title V air operation permit revision is required for continued operation of the permitted emissions unit. The permittee shall apply for a Title V air operation permit revision at least 90 days prior to expiration of this permit, but no later than 180 days after commencing operation (initial firing of natural gas or distillate No. 2 oil). To apply for a Title V air operation permit, the applicant shall submit the following:

a. the appropriate permit application form *(see current version of Rule 62-210.900, F.A.C. (Forms and Instructions), and/or FDEP Division of Air Resource Management website at: http://www.dep.state.fl.us/air/)*;

b. a copy of the initial visible emission (VE) compliance test report required by Specific Condition Nos. A. 6. and A. 13., if not previously submitted;

c. copies of the most recent two months of records/logs specified in Specific Condition No(s). A.14., A.15. and A.16.

[Rules 62-4.030, 62-4.050, 62-4.220 and 62-213 F.A.C.]

This section of the permit addresses the following emissions unit.

ID No.	Emission Unit Description
073	NG fired 75 mmBtu/hr boiler This emission unit is a new natural gas fired boiler to provide heating of the water in the reverse osmosis (RO) plant at Mosaic Green Bay – A part of the Mosaic Bartow Facility. The boiler will be fired on natural gas with the low sulfur distillate # 2 oil as backup with a maximum design heat input rate of 75 mmBtu/hr. This boiler is subject to the New Source Performance Standard (NSPS) Subpart Dc (Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units) contained in 40 CFR 60 and Rule 62-296.406, F.A.C., as it applies to fossil fuel steam generators with less than 250 mmBtu/hr heat input, new and existing emission units.

PERFORMANCE RESTRICTIONS

A.1. Federal Regulatory Requirements - This new boiler is subject to NSPS 40 CFR 60 Subpart Dc – (Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units), as it applies to boiler fired with natural gas and distillate # 2 oil*; and Subpart A (General Provisions to 40 CFR 60). These federal regulations are adopted by reference in Rule 62-204.800, F.A.C.

(* NSPS Subpart Dc Note - This consists only of notification requirements and a recordkeeping requirement - see Specific Condition Nos. A.11., A.14. and A.16.)

[Rule 62-204.800(8)(b) and (d), F.A.C.; NSPS 40 CFR 60 Subparts Dc and A]

A.2. Permitted Capacity - The maximum heat input rate for this boiler is 75 mmBtu/hour.

(Permitting Note -The permittee is not required to keep routine records to demonstrate compliance with this limitation, as this represents the manufacturer's maximum rated heat input rate.)

[Rule 62-210.200(PTE), F.A.C.]

A.3. Authorized Fuel - This boiler is permitted to be fired with natural gas with distillate # 2 oil as backup fuel. The distillate # 2 oil maximum sulfur content shall not exceed 0.05 percent, by weight.
[BACT Determination dated 03/11/2011 for particulate matter (PM) and sulfur dioxide (SO_2) emissions made for this boiler in accordance with Rule 296.406(2) & (3), F.A.C. *(see Appendix E.)*; construction permit application dated 12/03/2010]

A.4. Permitted Operating Hours - The hours of operation of this new boiler are not limited (i.e., permitted for 8760 hours per year) while on natural gas firing; however the hours of operation are limited to 400 hours per year while on distillate # 2 oil firing.
[Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.; construction permit application dated 12/03/2010]

EMISSIONS STANDARDS

A.5. Visible Emission (VE) Standard - Visible emissions from this boiler shall not exceed 20% opacity, except for one six-minute period per hour during which opacity shall not exceed 27%. [Rule 62-296.406(1), F.A.C.; construction permit application dated 12/03/2010]

COMPLIANCE TESTING REQUIREMENTS

A.6. Initial Visible Emissions Compliance Test - The boiler shall be tested to demonstrate initial compliance with the visible emission (VE) standard of Specific Condition No. A.5. The initial test shall be conducted no later than 60 days after initial operation of the boiler. Initial operation is defined as the first time the new boiler fires natural gas/distillate # 2 oil.
[Rules 62-4.070(3) and 62-297.310(7)(a)1, F.A.C.]

A.7. Compliance Tests After the Initial Compliance Test - Subsequent visible emission (VE) testing of this boiler will be required, but the frequency and schedule for such testing will be established in the facility operation permit when it is revised to incorporate this new boiler. *(See Section 2, Condition No. 10. for Title V air operation permit revision application requirements.)*
[Rule 62-297.310(7)(a), F.A.C.]

A.8. Visible Emissions Compliance Test Requirements – Testing of visible emissions (VE) to show compliance with the visible emission limitation of Specific Condition No. A.5. shall be conducted in accordance with the applicable requirements specified in Appendix D (Common Testing Requirements) of this permit. Testing shall be conducted when the boiler is cycling up to a normal high firing rate. The test observation period shall be a minimum of 60 minutes in duration and shall include the period during which the highest opacity emissions can reasonably be expected to occur. All test reports shall include identification of the boiler and estimated heat input rate (MMBtu/hour) during the test. Failure to submit the heat input rate and actual operating conditions in the test report may invalidate the test and fail to provide reasonable assurance of compliance.
[Rules 62-4.070(3) and 62-297.310(4)(a), F.A.C.]

A.9. Compliance Test Method - Required tests shall be performed in accordance with the following reference method.

Method	Description of Method
9	Visual Determination of the Opacity of Emissions from Stationary Sources

The above method is described in Appendix A of 40 CFR 60 and are adopted by reference in Rule 62-204.800, F.A.C. No other method(s) may be used unless prior written approval is received from the Department.
[Rules 62-204.800 and 62-297.100, F.A.C.; and Appendix A of 40 CFR 60]

MONITORING REQUIREMENTS

A.10. Fuel Usage Meter - This boiler shall have its own natural gas usage meter/distillate # 2 oil meter in order to determine the amount of natural gas/distillate # 2 oil combusted/inputted, in cubic feet/gallons respectively. *(See also Specific Condition Nos. A.14. and A.15. for testing period heat input rate reporting requirement, and fuel usage recordkeeping requirement.)*
[Rule 62-4.070(3), F.A.C.]

NOTIFICATION REQUIREMENTS

A.11. NSPS Commencement of Construction and Initial Startup Notification Requirements - In accordance with the requirements of New Source Performance Standards (NSPS) Subpart A (General Provisions) 40 CFR 60.7(a), the permittee shall submit written notification of the following to the Compliance Authority *(see Section 2, Condition No. 2.)*:

a. the date installation of the new boiler (EU 073) is commenced on-site (notification shall be postmarked no later than 30 days after such date);

b. the actual date of initial startup (initial firing of natural gas/distillate # 2 oil) of the new boiler (EU 073) (notification shall be postmarked within 15 days after such date).

[Rule 62-204.800(8)(d), F.A.C.; NSPS Subpart A 40 CFR 60.7(a)]

A.12. Compliance Test Notification - The permittee shall notify the Compliance Authority in writing at least 15 days prior to any required compliance tests. The notification must include the following information: the date, time, and location of each test; the name and telephone number of the facility's contact person who will be responsible for coordinating the test; and the name, company, and the telephone number of the person conducting the test*.

(Permitting Note - The notification should also include the relevant emission unit ID No(s)., test method(s) to be used, and pollutants to be tested.)*

[Rules 62-4.070(3) and 62-297.310(7)(a)9., F.A.C.]

RECORDS AND REPORTS

A.13. Compliance Test Reports - The permittee shall prepare and submit reports for all required compliance tests in accordance with the requirements specified in Appendix D (Common Testing Requirements) of this permit. The permittee shall submit a statement of the fuel being used and the estimated fuel heat input rate (MMBtu/hour) during the test period as a part of the compliance test report. Failure to submit the fuel type and heat input rate, or operating at conditions which do not reflect the normal operating conditions, may invalidate the test and fail to provide reasonable assurance of compliance.
[Rules 62-4.070(3), and 62-297.310(8), F.A.C.]

A.14. Monthly Fuel Usage Records - Pursuant to NSPS Subpart Dc 40 CFR 60.48c, the permittee is required to maintain records of the amount of natural gas (or any other fuel) combusted in the boiler. In accordance with 40 CFR 60.48(g)(2), since this unit is permitted to combust natural gas with distillate # 2 oil as backup fuel, records of the amount of natural gas and distillate # 2 oil burned during each calendar month and consecutive 12-months rolling average shall be kept. An entry shall be made in the log no later than 15 days after the end of each calendar month. These records shall be recorded in a permanent form suitable for inspection onsite by the Department upon request, and shall be retained for at least a three (3) year period.
[Rules 62-4.160(14)(b), and 62-204.800(8)(b), F.A.C.; NSPS Subpart Dc - 40 CFR 60.48c(g)(1) and (2)]

A.15. Monthly/Yearly Operating Hours Records – Pursuant to Specific Condition No. A.4. above, the permittee is required to maintain records of hours the boiler was fired on distillate # 2 oil during each calendar month and consecutive 12-months rolling average. An entry shall be made in the log no later than 15 days after the end of each calendar month. These records shall be recorded in a permanent form suitable for inspection onsite by the Department upon request, and shall be retained for at least a three (3) year period.
[Rules 62-4.070(3) and 62-4.160(14)(b), F.A.C.]

A.16. Fuel Supplier Certification – Compliance with the emission limits or fuel oil sulfur limits may be determined based on a certification from the fuel supplier. For distillate No. 2 oil, the certification shall include the following information:

(i) The name of the oil supplier;
(ii) A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in §60.41c; and
(iii) The sulfur content or maximum sulfur content of the oil.

[Rule 62-204.800(b), F.A.C.; NSPS Subpart Dc – 40 CFR 60.42c(h) and 60.48c(f)]