E.I. Dupont De Nemours & Co.
E.I. Dupont De Nemours & Co.-Highland

Facility ID No.: 0070001
Bradford County

Title V Air Operation Permit Renewal
FINAL Permit No.: 0070001-007-AV

Permitting and Compliance Authority:
State of Florida
Department of Environmental Protection
Northeast District (NED) Air Program
7825 Baymeadows Way, Suite B200
Jacksonville, Florida 32256-7590
Telephone: 904/807-3300
Fax: 904/448-4363

Title V Air Operation Permit Renewal
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Florida Department of Environmental Protection

Northeast District
7825 Baymeadows Way, Suite B200
Jacksonville, Florida 32256-7590
Phone: 904/807-3300 ♦ Fax: 904/448-4366

Charlie Crist
Governor

Jeff Kottkamp
Lt. Governor

Michael W. Sole
Secretary

Permittee:
E.I. Dupont De Nemours & Co.
Post Office Box 753
Starke, Florida 32091

FINAL Permit No.: 0070001-007-AV
Facility ID No.: 0070001
SIC Nos.: 10, 1099
Project: Title V Air Operation Permit Renewal

The purpose of this permit is to renew the Title V Air Operation Permit. This facility is located 1.2 miles east of U.S. Highway 301 on SR 125, north of Lawtey in Bradford County; UTM Coordinates: Zone 17, 398.70 km East and 3325.00 km North; Latitude: 30° 03′ 12″ North and Longitude: 82° 03′ 04″ West.

This Title V Air Operation Permit Renewal is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210 and 62-213. The above named permittee is hereby authorized to operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the permitting authority, in accordance with the terms and conditions of this permit.

Referenced attachments made a part of this permit:

Appendix U-1, List of Unregulated Emissions Units and/or Activities
Appendix I-1, List of Insignificant Emissions Units and/or Activities
TV-6, TITLE V CONDITIONS version dated June 23, 2006 till present
Appendix A, Subpart A – General Provisions of 40 CFR 60

Effective Date: November 9, 2009
Renewal Application Due Date: March 29, 2014
Expiration Date: November 9, 2014

Christopher L. Kirts, P.E.
District Air Program Administrator

CLK: lm

Section I. Facility Information.

Subsection A. Facility Description.

This facility mines and processes heavy mineral sand (Ilmenite, Zircon, Staurolite). The facility contains a fuel oil fired rotary dryer, dry cyclone, a feed system, and a load-out system.

Feed to the rotary dryer comes from the stockpile of scrubbed wet mill concentrate via the hopper, bin loading belt conveyor, disk feeder bin and the dryer feed belt conveyor. The dried heavy mineral sands are discharged onto a conveyor and taken in to the dry processing facility. The dry cyclone is used for product recovery. The cyclone undersize is then wet to control fugitive emissions and returned to a wet settling pond.

The dried mineral sands are sent to other plants for processing to titanium dioxide.
The heavy mineral sand is not milled for size reduction in any of the processes and is only physically separated from the quartz sands by gravity prior to introduction to the rotary dryer.

The following is a brief description of the facility emissions units:

Ilmenite Dryer. This emissions unit consists of a rotary dryer with a maximum process rate of 76.16 tons per hour of dry mineral sand and a maximum heat input rate of 22.0 MMBtu per hour. Heat is provided by the burning of either No. 6 fuel oil, On-spec used oil, No. 4 fuel oil or No. 5 fuel oil. A cyclone is used for product recovery and exhaust gases are emitted through a single vertical stack.

Product Handling and Transfer Operations Fugitive Emissions. This emissions unit consists of various screens, bucket elevators, storage bins, belt conveyors, and a loading station.

Portable Screening System. This is a screening system (manufacturer: McCloskey International, Model: MCB-516RE) that consists of a Caterpillar (95 KW, 2200 rpm) non road diesel engine, feed hopper, screener and multiple conveyor belts. The screener is used to reclaim metallic minerals from previously processed material. The ore piles are in the open and have a significant amount of moisture. A mobile excavator is used to pickup the material and drops it into the screen hopper. The open screen separates the material and has an integral belt conveyor that drops the material into a truck for load out. A similar conveyor drops the oversize material onto another material pile.

Also included in this permit are miscellaneous unregulated and insignificant emissions units and/or activities.

Based on the Title V Renewal application received June 22, 2009, this facility is not a major source of hazardous air pollutants (HAPs). This facility is classified as a PSD Major facility due to the potential SO_2 emissions being above 250 TPY.

Subsection B. Summary of Emissions Unit ID Nos. and Brief Descriptions.

E.U. ID No.	Brief Description
-001	Ilmenite Dryer
-002	Product Handling and Transfer Operations Fugitive Emissions
-003	Portable Screening System
-004	Internal Combustion Engine for EU 003
-xxx*	* See Appendix U-1, List of Unregulated Emissions Units and/or Activities

Please reference the Permit No., Facility ID No., and appropriate Emissions Unit(s) ID No(s). on all correspondence, test report submittals, applications, etc.

Subsection C. Relevant Documents.

The documents listed below are not a part of this permit, however, are specifically related to this permitting action.

These documents are provided to the permittee for information purposes only:
Table 1-1, Summary of Air Pollutant Standards and Terms
Table 2-1, Summary of Compliance Requirements
Appendix A-1, Abbreviations, Acronyms, Citations, and Identification Numbers
Appendix H-1, Permit History / ID Number Transfers
Statement of Basis

These documents are on file with the permitting authority:
Application for Air Permit – Long Form received June 22, 2009.

Section II. Facility-wide Conditions.

The following conditions apply facility-wide:

1. APPENDIX TV-6, TITLE V CONDITIONS, is a part of this permit.
{Permitting note: APPENDIX TV-6, TITLE V CONDITIONS, is distributed to the permittee only. Other persons requesting copies of these conditions shall be provided a copy when requested or otherwise appropriate.}

2. [Not federally enforceable.] General Pollutant Emission Limiting Standards. Objectionable Odor Prohibited. The permittee shall not cause, suffer, allow, or permit the discharge of air pollutants, which cause or contribute to an objectionable odor.
[Rule 62-296.320(2), F.A.C.]

3. Insignificant Emissions Units and/or Activities. Appendix I-1, List of Insignificant Emissions Units and/or Activities, is a part of this permit.
[Rules 62-213.440(1), 62-213.430(6), and 62-4.040(1)(b), F.A.C.]

4. Unregulated Emissions Units and/or Activities. Appendix U-1, List of Unregulated Emissions Units and/or Activities, is a part of this permit.
[Rule 62-213.440(1), F.A.C.]

5. General Particulate Emission Limiting Standards. General Visible Emissions Standard. Except for emission units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20 percent opacity). EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C.
[Rule 62-296.320(4)(b)1. & 4., F.A.C.]

6. General Pollutant Emission Limiting Standards. Volatile Organic Compounds (VOC) Emissions or Organic Solvents (OS) Emissions. The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds (VOC) or organic solvents (OS) without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department.

Nothing was deemed necessary and ordered at this time.

[Rule 62-296.320(1)(a), F.A.C.]

7. Industrial, Commercial, and Municipal Open Burning Prohibited. Open burning in connection with industrial, commercial, or municipal operations is prohibited, except when:

(a) Open burning is determined by the Department to be the only feasible method of operation and is authorized by an air permit issued pursuant to Chapter 62-210 or 62-213, F.A.C.; or

(b) An emergency exists which requires immediate action to protect human health and safety.

[Rule 62-296.320(3), F.A.C.]

8. Emissions of Unconfined Particulate Matter. Pursuant to Rules 62-296.320(4)(c)1., 3. & 4., F.A.C., reasonable precautions to prevent emissions of unconfined particulate matter at this facility include the following requirements (see Condition 57. of APPENDIX TV-6, TITLE V CONDITIONS):

a. paved roadways; application of water to unpaved roads.
b. Landscaping or planting of vegetation.
c. Use of enclosures and windbreaks, where practical.

[Rule 62-296.320(4)(c)2., F.A.C.; Renewal Additional Information received 03/05/2004, Construction Permit No. 0070001-004-AC]

9. Prevention of Accidental Releases (Section 112(r) of CAA).

a. The permittee shall submit its Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center when, and if, such requirement becomes applicable. Any Risk Management Plans, original submittals, revisions or updates to submittals, should be sent to:

RMP Reporting Center
Post Office Box 1515
Lanham-Seabrook, MD 20703-1515
Telephone: 301/429-5018

and,

b. The permittee shall submit to the permitting authority Title V certification forms or a compliance schedule in accordance with Rule 62-213.440(2), F.A.C.
[40 CFR 68]

10. When appropriate, any recording, monitoring, or reporting requirements that are time-specific shall be in accordance with the effective date of the permit, which defines day one.
[Rule 62-213.440, F.A.C.]

11. Statement of Compliance. The annual statement of compliance pursuant to Rule 62-213.440(3)(a)2., F.A.C., shall be submitted to the Department and EPA within 60 (sixty) days after the end of the calendar year using DEP Form No. 62-213.900(7), F.A.C.
[Rules 62-213.440(3) and 62-213.900, F.A.C.]

{Permitting Note: This condition implements the requirements of Rules 62-213.440(3)(a)2. & 3., F.A.C. (see Condition 51. of APPENDIX TV-6, TITLE V CONDITIONS)}

12. The permittee shall submit all compliance related notifications and reports required of this permit to the Department's Northeast District Office, Air Section:

Department of Environmental Protection
Northeast District Office
7825 Baymeadows Way, Suite B-200
Jacksonville, Florida 32256-7590
Telephone: 904/807-3300
Fax: 904/448-4363

13. Any reports, data, notifications, certifications, and requests required to be sent to the United States Environmental Protection Agency, Region 4, should be sent to:

United States Environmental Protection Agency
Region 4
Air, Pesticides & Toxics Management Division
Air and EPCRA Enforcement Branch
Air Enforcement Section
61 Forsyth Street
Atlanta, Georgia 30303-8960
Telephone: 404/562-9155; Fax: 404/562-9163

14. Certification by Responsible Official (RO). In addition to the professional engineering certification required for applications by Rule 62-4.050(3), F.A.C., any application form, report, compliance statement, compliance plan and compliance schedule submitted pursuant to Chapter 62-213, F.A.C., shall contain a certification signed by a responsible official that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. Any responsible official who fails to submit any required information or who has submitted incorrect information shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary information or correct information.
[Rule 62-213.420(4), F.A.C.]

Section III. Emissions Unit(s) and Conditions.

Subsection A. This section addresses the following emissions unit(s).

E.U. ID No.	Brief Description
-001	Ilmenite Dryer with a cyclone for product recovery

The Ilmenite Dryer operates at a maximum production rate of 76.16 tons per hour of heavy mineral sands. Heat is primarily provided by the burning of 150 gallons per hour of No. 6 fuel oil for a maximum heat input rate of 22.0 MMBtu per hour.

The following conditions apply to the emissions unit(s) listed above:

ESSENTIAL POTENTIAL TO EMIT (PTE) PARAMETERS

A.1. Permitted Capacity. The maximum heat input rate for this emissions unit shall not exceed 22.0 MMBtu per hour.

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; Construction Permit No. AC04-146205 & 0070001-004-AC]

A.2. Capacity. The maximum production rate shall be 76.16 tons per hour of dried Ilmenite ore.

[Rules 62-4.160(2) and 62-210.200, (PTE), F.A.C.]

A.3. Hours of Operation. This emissions unit may operate continuously, i.e., 8,760 hours/year.

[Rules 62-4.160(2) and 62-210.200, (PTE), F.A.C.]

A.4. Methods of Operation - (i.e. Fuels). The maximum heat input shall be attained using a maximum of either 150 gallons per hour of No. 6 fuel oil with a maximum sulfur content of 2.8% by weight or 170 gallons per hour of on-spec used oil with a maximum sulfur content of 1% by weight. Nos. 4 & 5 fuel oil may also be used in place of No. 6 fuel oil provided that the 22.0 MMBtu per hour heat input limit is not exceeded.

[Rule 62-213.410, F.A.C., Construction Permit No. AC04-146205, Construction Permit No. 0070001-004-AC]

EMISSION LIMITATIONS AND STANDARDS

{Permitting note: Table 1-1, Summary of Air Pollutant Standards and Terms, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

{Permitting Note: Unless otherwise specified, the averaging time for these conditions are based on the specified averaging time of the applicable test method.}

A.5. Visible Emissions. Visible emissions shall not exceed 20 percent opacity based on a six-minute average.

[Construction Permit No. AC04-146205, Construction Permit No. 0070001-004-AC]

A.6. Sulfur Dioxide. Sulfur dioxide emissions shall be subject to the limit established by the fuel oil sulfur content limit in **Specific Condition No. A.4.**

[Air Construction Permit No. 0070001-004-AC]

TEST METHODS AND PROCEDURES

{Permitting note: Table 2-1, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

A.7. Visible Emissions. The test method for visible emissions shall be EPA Method 9. Compliance testing shall be performed at least once each federal fiscal year.

[Rule 62-296.320(4)(b)4.a., F.A.C., Rule 62-297.401, F.A.C.; Rule 62-297.310(7)(a)4.a., F.A.C.; Construction Permit No. 0070001-004-AC]

A.8. Sulfur Dioxide. In lieu of stack testing, determine and record the as-fired fuel sulfur content for liquid fuels using ASTM D2622-92, ASTM D4294-90, or both ASTM D4057-88 and ASTM D129-91 to analyze a representative sample of the fuel following each fuel delivery. A copy of a certified ASTM fuel oil analysis of the oil delivered is acceptable.

[Rules 62-213.440 and 62-297.440, F.A.C., Construction Permit No. 0070001-004-AC]

MONITORING REQUIREMENTS

A.9. Fuel Flow. The owner or operator shall calibrate, maintain, and operate a monitoring device for the fuel oil usage. The fuel flow meters shall meet an accuracy of ±10%. Calibrations shall be performed at least annually.

[Rule 62-297.310(5), F.A.C.; Permit No. 0070001-004-AC]

RECORDKEEPING AND REPORTING

A.10. Recordkeeping. A record of operational data for this emissions unit shall be maintained at the facility. A report of this data shall be submitted to the Department with the Annual Operating Report.
The report shall include the following minimum data:

- Hours of Operation
- Daily process input rate (tons/hr)
- Daily fuel usage of No. 6 fuel oil (gal/hr)
- Daily fuel usage of on-spec used oil (gal/hr)
- Daily fuel usage of No. 4 fuel oil (gal/hr)
- Daily fuel usage of No. 5 fuel oil (gal/hr)
- Oil delivery record for each fuel oil type including:
    - Date of Delivery
    - Gallons of fuel delivered
    - Fuel oil analysis including heat content in BTU per gallon, density in pounds per gallon, sulfur content in percent by weight, and the name of the test method. (A certified analysis supplied by the vendor is acceptable)

[Rules 62-4.070(3) and 62-213.440, F.A.C.; Construction Permit No. AC04-146205, Construction Permit No. 0070001-004-AC]

A.11. Fuel Flow Meter Calibration Data. The calibration data shall be submitted along with the Annual Operating Report.
[Construction Permit No. 0070001-004-AC]

ON- SPEC USED OIL SPECIFICATIONS

A.12. The on-spec used oil prior to blending shall comply with the specifications stated below, and the provisions of 40 CFR 279 & 761. Used oil, which does not meet any of these specification levels, is considered "off-specification" used oil and shall not be burned:

ON-SPEC USED OIL SPECIFICATIONS	
Constituent/Property	**Allowable Level**
Arsenic	5 ppm maximum
Cadmium	2 ppm maximum
Chromium	10 ppm maximum
Lead	100 ppm maximum
Total Halogens	1,000 ppm maximum
Flash Point	100°F minimum

[40 CFR 279.11; Permit No. 0070001-004-AC]

A.13. **PCBs.** **On-specification used oil may be fired as follows:**

1. At any time provided the maximum concentration of PCBs is less than 2 ppm regardless of whether it is generated on or off-site. The analysis and recordkeeping requirements apply to each amount of used oil, prior to blending, even if to be blended with 90% virgin oil.

2. Only during normal operation temperature and not during startup or shutdown, if the maximum concentration of PCBs is greater than or equal to 2 ppm, but less than 50 ppm.

[40 CFR 279.61 and 761.20(e); Permit No. 0070001-004-AC]

A.14. **Recordkeeping.** Approved EPA, DEP, or ASTM test methods shall be used or a certified on-specification used oil analysis shall be obtained prior to blending and shall be retained for inspection or submitted to the Department upon request.

[Permit No. 0070001-004-AC]

A.15. This emissions unit is also subject to the applicable requirements in subsection E.

Subsection B. This section addresses the following emissions unit(s).

E.U. ID No.	Brief Description
-002	Product Handling and Transfer Operations- Fugitive Emissions from #1 Screen (EP 01), #2 Screen (EP 02), #3 Screen (EP 03), #4 Screen (EP 04), #5 Screen (EP 05), #8 Screen (EP 06), #1A Elevator (EP 07), #15 Elevator (EP 08), #16 Elevator (EP 09), #17 Elevator (EP 010), #1 Belt Conveyor (Emissions Point (EP 011)), #2 Belt Conveyor (EP 012), #31 Conveyor (EP 013), #1 Storage Bin (EP 014), #2 Storage Bin (EP 015), and #4 Loading Station (EP 016).

The Processing Plant operates various sources of NSPS fugitive emissions at a rate necessary to maintain a maximum production rate of 76.16 tons per hour of dried Ilmenite ore.

{Permitting note(s): The identified emissions points are regulated under NSPS - 40 CFR 60, Subpart LL, Standards of Performance for Metallic Mineral Processing Plants, adopted and incorporated by reference in Rule 62-204.800, F.A.C.}

The following conditions apply to the emissions unit(s) listed above:

ESSENTIAL POTENTIAL TO EMIT (PTE) PARAMETERS

B.1. Capacity. The maximum production rate shall be 76.16 tons per hour of dried Ilmenite ore.

[Rules 62-4.160(2) and 62-210.200, (PTE), F.A.C.]

B.2. Hours of Operation. These emissions units may operate continuously, i.e., 8,760 hours/year.

[Rules 62-4.160(2) and 62-210.200, (PTE), F.A.C.]

EMISSION LIMITATIONS AND STANDARDS

{Permitting note: Table 1-1, Summary of Air Pollutant Standards and Terms, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

B.3. Particulate Matter. Process fugitive emissions that exhibit greater than 10% opacity shall not be discharged into the atmosphere from each of the emissions point.

[40 CFR 60.382(b)]

TEST METHODS AND PROCEDURES

Table 2-1, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

B.4. Particulate Matter. EPA Method 9 and the procedures in 40 CFR 60.11 shall be used to determine opacity from stack emissions and process fugitive emissions. The observer shall read opacity only when emissions are clearly identified as emanating solely from the affected emissions unit being observed. A compliance test shall be performed once each federal fiscal year. **Note**

Note: Emissions Points 01, 02, 03, 04, 06, 07, 08, 09, 010, and 013 are vented indoors and opacity testing may be required. DEP reserves the right to require the modification of construction and operation permits to accommodate testing requirements based on the EPA 04/04/2003, letter and any additional instruction from EPA and /or the Division of Air. If such determination is made, the permittee will be required to submit all necessary permit applications and publish required "Public Notices".

[40 CFR 60.386(b)(2); Rule 62-297.310(7)(a)4.a., F.A.C.]

B.5. This emissions unit is also subject to the applicable requirements of 40 CFR 60 Subpart A, General Provisions.

B.6. This emissions unit is also subject to the applicable requirements in subsection E.

Subsection C. This section addresses the following emissions unit(s).

Emissions Unit	Emissions Points
003 – Portable Screening System	001 –Feed hopper 002 - Screener 003 – Transfer point from screen to reject belt 004 – Transfer point from under belt to discharge Belt

This is a screening system (manufacturer: McCloskey International, Model: MCB-516RE) that consists of a Caterpillar (95 KW, 2200 rpm) non road diesel engine, feed hopper, screener and multiple conveyor belts. The screener is used to reclaim metallic minerals from previously processed material. The ore piles are in the open and have a significant amount of moisture. A mobile excavator is used to pick up the material and drops it into the screen hopper. The open screen separates the material and has an integral belt conveyor that drops the material into a truck for load out. A similar conveyor drops the oversize material onto another material pile.

The unit is subject to:

- New Source Performance Standards (NSPS), Subpart LL - Standards of Performance for Metallic Mineral Processing Plants, adopted and incorporated by reference in Rule 62-204.800, F.A.C.

The following conditions apply to the emissions unit(s) listed above:

ESSENTIAL POTENTIAL TO EMIT (PTE) PARAMETERS

C.1. **Hours of Operation.** The hours of operation are not restricted.
[Rules 62-4.160(2), 62-210.200(PTE), F.A.C.]

C.2. **Maximum Throughput Rate.** The throughput rate for the screener shall not exceed 200 tons per hour.
[Rules 62-4.160(2), 62-210.200(PTE), F.A.C.]

EMISSION LIMITATIONS AND STANDARDS

C.3. **Visible Emissions (VE) Limit- EU 003.** The owner or operator shall NOT cause to be discharged into the atmosphere from each emissions point any process fugitive emissions that exhibit greater than 10 percent opacity.
[40 CFR 60.382 (b)]

COMPLIANCE DEMONSTRATION AND PERFORMANCE TESTING

C.4. **Test Method.** The test method for the visible emissions shall be EPA Method 9 as specified in Appendix A of 40 CFR 60 and are adopted by reference in Rule 62-204.800, F.A.C. The duration of the test shall be at least 30 minutes.
[40 CFR 60.386 (b) (2), Rule 62-297.401 & 62-297.310 (4)(a)2, F.A.C.]

C.5. **VE Compliance Test Frequency.** The owner or operator shall conduct a visible emission test to demonstrate compliance with the VE limit (as specified in Specific Condition No.3) at least once during each federal fiscal year (October 1-September 30).
[Rule 62-297.310(7) (a), F.A.C.]

C.6. **Relocation Notification.** The owner or operator shall notify the Department either by fax, telephone or letter prior to relocating the unit to other location.

C.7. This emissions unit is also subject to the applicable requirements of 40 CFR 60 Subpart A, General Provisions.

C.8. This emissions unit is also subject to the applicable requirements in subsection E.

Subsection D. This section addresses the following emissions unit(s).

Emissions Unit	Description
004	Internal Combustion Engine for EU 003

The diesel engine is subject to:

- New Source Performance Standards (NSPS), Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

The engine was built on June 15, 2006, and is certified by manufacturer according to 40 CFR part 89 or 40 CFR part 94, and meets the emissions standards of 40 CFR 60.4204 (a).

The following specific conditions apply to the emissions unit(s) listed above:

ESSENTIAL POTENTIAL TO EMIT (PTE) PARAMETERS

D.1. **Hours of Operation.** The hours of operation are not restricted.
[Rules 62-4.160(2), 62-210.200(PTE), F.A.C.]

D.2. **Permitted Capacity.** The power rating for the engine is 95 KW and 2200 rpm.
[Rules 62-4.160(2), 62-210.200(PTE), F.A.C.]

EMISSIONS LIMITATIONS AND WORK PRACTICE STANDARDS

D.3. **Nitrogen Oxide (NOx) Emissions Limit.** The NOx emissions shall not exceed 9.2 g/KW-hr or 6.9 g/HP-hr.
[40 CFR 60.4204 (a), and Table 1 of NSPS, Subpart IIII]

D.4. **Operation & Maintenance.** Owners and operators shall operate and maintain the units according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer, over the entire life of the engine.
[40 CFR 60.4206]

D.5. **Fuel Requirements.** The owner or operator shall comply with the following fuel requirements.

a. Beginning October 1, 2007, owners and operators shall use diesel fuel that meets the following per-gallon standards:
   i. Sulfur Content. 500 parts per million (ppm) maximum.
   ii. Cetane index or aromatic content, as follows:

   A minimum cetane index of 40; or
   A maximum aromatic content of 35 volume percent.

b. Beginning October 1, 2010, owners and operators shall use diesel fuel that meets the meets the following per-gallon standards:
   i. Sulfur Content. 15 ppm maximum for Non Road (NR) diesel fuel. 500 ppm maximum for Locomotive and Marine (LM) diesel fuel.
   ii. Cetane index or aromatic content, as follows:

   A minimum cetane index of 40; or
   A maximum aromatic content of 35 volume percentage.

[40 CFR 60.4207 (a) & (b), 40 CFR 80.510 (a) & (b)]

D.6. **Monitoring.** If the engine is equipped with a diesel particulate filter to comply with the emission standards, the diesel particulate filter must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached.
[40 CFR 60.4209]

COMPLIANCE DEMONSTRATION AND TESTING REQUIREMENTS

D.7. The owner or operator shall operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer. In addition, owners and operators may only change those settings that are permitted by the manufacturer. The owner or operator shall also meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply to the units.
[40 CFR 60.4211 (a)]

D.8. **Compliance Certification.** The owner or operator shall comply by purchasing an engine certified to the emission standards as described by **Specific Condition No. D.3.** The engine must be installed and configured according to the manufacturer's specifications.
[40 CFR 60.4211 (c)]

D.9. **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.]

D.10. **Test Method.** The owner or operator shall conduct the performance tests according to procedures as described below if special compliance tests are requested by the Department pursuant to **Specific Condition No. D.9.**

(a) The performance test must be conducted according to the in-use testing procedures in 40 CFR part 1039, subpart F.

(b) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR part 1039 must not exceed the not-to-exceed (NTE) standards for the same model year and maximum engine power as required in 40 CFR 1039.101(e) and 40 CFR 1039.102(g)(1), except as specified in 40 CFR 1039.104(d). This requirement starts when NTE requirements take effect for nonroad diesel engines under 40 CFR part 1039.

(c) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR 89.112 or 40 CFR 94.8, as applicable, must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard in 40 CFR 89.112 or 40 CFR 94.8, as applicable, determined from the following equation:

$$\text{NTE requirement for each pollutant} = (1.25) \times (\text{STD}) \qquad \text{(Eq. 1)}$$

Where:

STD = The standard specified for that pollutant in 40 CFR 89.112 or 40 CFR 94.8, as applicable.

Alternatively, stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR 89.112 or 40 CFR 94.8 may follow the testing procedures specified in 40 CFR 60.4213 of this subpart, as appropriate.
[40 CFR 60.4212]

RECORDKEEPING REQUIREMENTS

D.11. **Recordkeeping – PM Filter.** If the stationary CI internal combustion engine is equipped with a diesel particulate filter, the owner or operator shall keep records of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit of the engine is approached.
[40 CFR 60.4214 (c)]

D.12. **Recordkeeping – Fuel.** The owner or operator shall keep record of fuel oil analysis for each batch of diesel fuel purchased. The owner or operator shall also keep record of fuel usage.
[Rule 62-4.070 (2), F.A.C.]

D.13. This emissions unit is also subject to the applicable requirements of 40 CFR 60 Subpart A, General Provisions.

D.14. This emissions unit is also subject to conditions **E.1.** through **E.9.**

Subsection E. Common Conditions.

E.U. ID No.	Brief Description
-001	Ilmenite Dryer
-002	Product Handling and Transfer Operations- Fugitive Emissions from #1 Screen (EP 01), #2 Screen (EP 02), #3 Screen (EP 03), #4 Screen (EP 04), #5 Screen (EP 05), #8 Screen (EP 06), #1A Elevator (EP 07), #15 Elevator (EP 08), #16 Elevator (EP 09), #17 Elevator (EP 010), #1 Belt Conveyor (Emissions Point (EP 011)), #2 Belt Conveyor (EP 012), #31 Conveyor (EP 013), #1 Storage Bin (EP 014), #2 Storage Bin (EP 015), and #4 Loading Station (EP 016).
-003	Portable Screening System
-004	Internal Combustion Engine for EU 003

The following conditions apply to the emissions unit(s) listed above:

{Permitting note: Table 2-1, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

E.1. Operation During Compliance Test. Unless otherwise stated in the applicable emission limiting standard rule, testing of emissions shall be conducted with the emissions unit operation at permitted capacity as defined below. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load 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. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit.

[Rule 62-297.310(2) and (2)(b), F.A.C.]

E.2. Required Sampling Time.

1. Opacity Compliance Tests. When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of

E.**2. Continued:**

particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:

a. For batch, cyclical processes, or other operations, which are normally completed within less than the minimum observation period and do not recur within that time, the period of observation shall be equal to the duration of the batch cycle or operation completion time.

b. The observation period for special opacity tests that are conducted to provide data to establish a surrogate standard pursuant to Rule 62-297.310(5)(k), F.A.C., Waiver of Compliance Test Requirements, shall be established as necessary to properly establish the relationship between a proposed surrogate standard and an existing mass emission limiting standard.

c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.

[Rule 62-297.310(4) (a)2., F.A.C.]

E.3. 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.]

E.4. <u>Required Stack Sampling Facilities</u>. Sampling facilities include sampling ports, work platforms, access to work platforms, electrical power, and sampling equipment support. All stack sampling facilities must meet any Occupational Safety and Health Administration (OSHA) Safety and Health Standards described in 29 CFR Part 1910, Subparts D and E.

(a) Permanent Test Facilities. The owner or operator of an emissions unit for which a compliance test, other than a visible emissions test, is required on at least an annual basis, shall install and maintain permanent stack sampling facilities.

(b) Temporary Test Facilities. The owner or operator of an emissions unit that is not required to conduct a compliance test on at least an annual basis may use permanent or temporary stack sampling facilities. If the owner chooses to use temporary sampling facilities on an emissions unit, and the Department elects to test the unit, such temporary facilities shall be installed on the emissions unit within 5 days of a request by the Department and remain on the emissions unit until the test is completed.

(c) Sampling Ports.

1. All sampling ports shall have a minimum inside diameter of 3 inches.

2. The ports shall be capable of being sealed when not in use.

3. The sampling ports shall be located in the stack at least 2 stack diameters or equivalent diameters downstream and at least 0.5 stack diameter or equivalent diameter upstream from any fan, bend, constriction or other flow disturbance.

4. For emissions units for which a complete application to construct has been filed prior to December 1, 1980, at least two sampling ports, 90 degrees apart, shall be installed at each sampling location on all circular stacks that have an outside diameter of 15 feet or less. For stacks with a larger diameter, four sampling ports, each 90 degrees apart, shall be installed. For emissions units for which a complete application to construct is filed on or after December 1, 1980, at least two sampling ports, 90 degrees apart, shall be installed at each sampling location on all circular stacks that have an outside diameter of 10 feet or less. For stacks with larger diameters, four sampling ports, each 90 degrees apart, shall be installed. On horizontal circular ducts, the ports shall be located so that the probe can enter the stack vertically, horizontally or at a 45-degree angle.

E.4. continued:

5. On rectangular ducts, the cross sectional area shall be divided into the number of equal areas in accordance with EPA Method 1. Sampling ports shall be provided which allow access to each sampling point. The ports shall be located so that the probe can be inserted perpendicular to the gas flow.

(d). Work Platforms.

1. Minimum size of the working platform shall be 24 square feet in area. Platforms shall be at least 3 feet wide.

2. On circular stacks with 2 sampling ports, the platform shall extend at least 110 degrees around the stack.

3. On circular stacks with more than two sampling ports, the work platform shall extend 360 degrees around the stack.

4. All platforms shall be equipped with an adequate safety rail (ropes are not acceptable), toeboard, and hinged floor-opening cover if ladder access is used to reach the platform. The safety rail directly in line with the sampling ports shall be removable so that no obstruction exists in an area 14 inches below each sample port and 6 inches on either side of the sampling port.

(e). Access to Work Platform.

1. Ladders to the work platform exceeding 15 feet in length shall have safety cages or fall arresters with a minimum of 3 compatible safety belts available for use by sampling personnel.

2. Walkways over free-fall areas shall be equipped with safety rails and toeboards.

(f). Electrical Power.

1. A minimum of two 120-volt AC, 20-amp outlets shall be provided at the sampling platform within 20 feet of each sampling port.

2. If extension cords are used to provide the electrical power, they shall be kept on the plant's property and be available immediately upon request by sampling personnel.

E.4. continued:

(g). Sampling Equipment Support.

1. A three-quarter inch eyebolt and an angle bracket shall be attached directly above each port on vertical stacks and above each row of sampling ports on the sides of horizontal ducts.

    a. The bracket shall be a standard 3-inch x 3 inch x one-quarter inch equal-legs bracket, which is 1 and one-half inches wide. A hole that is one-half inch in diameter shall be drilled through the exact center of the horizontal portion of the bracket. The horizontal portion of the bracket shall be located 14 inches above the centerline of the sampling port.

    b. A three-eighth inch bolt, which protrudes 2 inches from the stack, may be substituted for the required bracket. The bolt shall be located 15 and one-half inches above the centerline of the sampling port.

    c. The three-quarter inch eyebolt shall be capable of supporting a 500 pound working load. For stacks that are less than 12 feet in diameter, the eyebolt shall be located 48 inches above the horizontal portion of the angle bracket. For stacks that are greater than or equal to 12 feet in diameter, the eyebolt shall be located 60 inches above the horizontal portion of the angle bracket. If the eyebolt is more than 120 inches above the platform, a length of chain shall be attached to it to bring the free end of the chain to within safe reach from the platform.

2. A complete monorail or dual rail arrangement may be substituted for the eyebolt and bracket.

3. When the sample ports are located in the top of a horizontal duct, a frame shall be provided above the port to allow the sample probe to be secured during the test.

[Rule 62-297.310(6), F.A.C.]

E.5. <u>Frequency of Compliance Tests</u>. The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.

(a) General Compliance Testing.

1. The owner or operator of a new or modified emissions unit that is subject to an emission-limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission-limiting standard prior to obtaining an operation permit for such emissions unit.

2. For excess emission limitations for particulate matter specified in Rule 62-210.700, F.A.C., a compliance test shall be conducted annually while the emissions unit is operating under soot blowing conditions in each federal fiscal year during which soot blowing is part of normal emissions unit operation, except that such test shall not be required in any federal fiscal year in which a fossil fuel steam generator does not burn liquid and/or solid fuel for more than 400 hours other than during startup.

3. The owner or operator of an emissions unit that is subject to any emission-limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission-limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:

   a. Did not operate; or

   b. In the case of a fuel burning emissions unit, burned liquid and/or solid fuel for a total of no more than 400 hours.

4. During each federal fiscal year (October 1 -- September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:

   a. Visible emissions, if there is an applicable standard;

E.5. continued:

b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; or 100 tons per year or more of any other regulated air pollutant; and

c. Each NESHAP pollutant, if there is an applicable emission standard.

5. An annual compliance test for particulate matter emissions shall not be required for any fuel burning emissions unit that, in a federal fiscal year, does not burn liquid and/or solid fuel, other than during startup, for a total of more than 400 hours.

6. For fossil fuel steam generators on a semi-annual particulate matter emission compliance testing schedule, a compliance test shall not be required for any six-month period in which liquid and/or solid fuel is not burned for more than 200 hours other than during startup.

7. For emissions units electing to conduct particulate matter emission compliance testing quarterly pursuant to Rule 62-296.405(2)(a), F.A.C., a compliance test shall not be required for any quarter in which liquid and/or solid fuel is not burned for more than 100 hours other than during startup.

8. Any combustion turbine that does not operate for more than 400 hours per year shall conduct a visible emissions compliance test once per each five-year period, coinciding with the term of its air operation permit.

9. 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.

10. An annual compliance test conducted for visible emissions shall not be required for units exempted from air permitting pursuant to Rule 62-210.300(3), F.A.C.; units determined to be insignificant pursuant to Rule 62-213.300(2)(a)1., F.A.C., or Rule 62-213.430(6)(b), F.A.C.; or units permitted under the General Permit provisions in
Rule 62-210.300(4)(a) or Rule 62-213.300, F.A.C., unless the general permit specifically requires such testing.

E.5. continued:

(b) 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.

(c) Waiver of Compliance Test Requirements. If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply.

[Rule 62-297.310(7), F.A.C.]

E.6. Test Reports.

(a) 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.

(b) 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.

(c) 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 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.

E.6. continued:

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.

E.6. continued:

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.]

EXCESS EMISSIONS

{Permitting Note: The Excess Emissions Rule at Rule 62-210.700, F.A.C., cannot vary any requirement of a NSPS or NESHAP provision.}

E.7. 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.]

E.8. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited.

[Rule 62-210.700(4), F.A.C.]

EXCESS EMISSIONS- MALFUNCTION REPORTING REQUIREMENTS

E.9. In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the NED Air Program immediately 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.]