

STATEMENT OF BASIS

E.I. Dupont De Nemours & Co.
Highland Metallic Mineral Processing Plant

Facility ID No.: 0070001
Bradford County

Title V Air Operation Permit Revision
Draft Permit No.: 0070001-006-AV

This Title V Air Operation Permit Revision 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.

The subject of this permit is to make revision to Title V Air Operation Permit No. 0070001-003-AV. Air Construction Permit No. 0070001-005-AC is being issued for the construction of a portable screening system. The Title V Air Operation Permit Revision No. 0070001-006-AV is being issued for the purpose of incorporating the terms and conditions of Air Construction Permit No. 0070001-005-AC.

Proposed Unit

The proposed unit 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.

The screener 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 diesel engine is subject to:

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

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.

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.

Compliance Assurance Monitoring (CAM) does not apply to the dry cyclone at the Ilmenite dryer because it is used in product recovery.

Certain pieces of equipment associated with the product handling and transfer operations (Emissions Unit 002), are affected facilities pursuant to 40 CFR 60 Subpart LL-Standard of Performance for Metallic Mineral Processing Plants.

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

Based on the Title V permit application received July 9, 2008, 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 SO₂ emissions being above 250 TPY.