STATEMENT OF BASIS

Title V Air Operation Permit Renewal
Permit No. 0190011-014-AV

APPLICANT

The applicant for this project is E.I. Dupont De Nemours & Co.-Trail Ridge Metallic Mineral Processing Facility. The applicant's responsible official and mailing address are: Clement J. Hilton, Plant Manager, E.I. Dupont De Nemours & Co., P. O. Box 753, Starke, Florida 32091.

FACILITY DESCRIPTION

This facility mines and processes heavy mineral sands (Staurolite sand, zircon sand, titanium oxide sand, montmorillonite clay and other heavy metallic mineral concentrates). The facility consists of an Ilmenite dryer, a Zircore Kiln, a Zircon Kiln, a feed system, and a load-out system.

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

Zircore Kiln (EU 002). This unit consists of a kiln for Zircore heavy mineral sands with a maximum production rate of 4.5 tons per hour (dried) and a maximum heat input rate of 11.34 MMBtu per hour. The fuel usage is primarily 75.6 gallons per hour of No. 6 fuel oil. A cyclone is used for product recovery and exhaust gases are emitted through a single vertical stack.

Zircon Kiln (EU 003). This unit consists of a kiln for Zircon concentrate with a maximum production rate of 18.0 tons per hour (dried) and a maximum heat input rate of 20.5 MMBtu per hour. The fuel usage is primarily 140 gallons per hour of No. 6 fuel oil. A cyclone is used for product recovery and exhaust gases are emitted through a single vertical stack.

Ilmenite Dryer No. 2 (EU 004). This unit consists of a heavy mineral sand dryer and (combined with Ilmenite Dryer No. 1) has a maximum production rate of 70.0 tons per hour (dried) and a maximum heat input rate of 18.0 MMBtu per hour (although 22.5 MMBtu per hour is allowed for 12 days per year). The fuel usage is primarily 120 gallons per hour of No. 6 fuel oil. The emissions are controlled with a baghouse and are emitted through a single vertical stack.

Portable Screener (EU006). 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.

Internal Combustion Engine (EU007). This Internal Combustion 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). This engine supplies powers to EU006 Portable Screening System.

Emergency RICE Generator (EU008). Existing RICE < 500 bhp is subject to 40 CFR 63, Subpart ZZZZ-National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines and 40 CFR 63, Subpart NESHAP A- General Provisions.

RICE Air Compressor (EU009). New RICE ≤ 500 bhp meets the requirements of 40 CFR 63, Subpart ZZZZ-National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines and 40 CFR 63, Subpart NESHAP A- General Provisions by complying with 40 CFR 60, Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, 40 CFR 60, Subpart A- General Provisions.

TRAIL RIDGE PLANT
TITLE V EMISSION POINTS

E.I. Dupont De Nemours & Co.

Process Flow Diagram

***Note: PM fugitive emissions are emitted througbout process.**

E.I. Dupont De Nemours & Co.
Ilmenite Dryer
Process Flow Diagram

***Note: PM fugitive emissions are emitted from the dry mill.**

E.I. Dupont De Nemours & Co.
Zircore Kiln
Process Flow Diagram

***Note: PM fugitive emissions are emitted from the dry mill.**

PROJECT DESCRIPTION

This permit is to renew Title V Air Operation Permit No. 0190011-012-AV and to incorporate Air Construction Permit No. 0190011-015-AC.

PROCESSING SCHEDULE AND RELATED DOCUMENTS

Title V Air Operation Permit No. 0190011-014-AV.
Application for a Title V Air Operation Permit Renewal received March 26, 2014.
Requested Additional Information April 1, 2014.
Received Additional Information April 11, 2014.
Notice of Intent to Issue Air Permit issued **[Month day, year].**
Public Notice Published **[Month day, year].**

PRIMARY REGULATORY REQUIREMENTS

Title III: The facility **is not** identified as a major source of hazardous air pollutants (HAP).

Title V: The facility **is** a Title V major source of air pollution in accordance with Chapter 62-213, Florida Administrative Code (F.A.C.).

PSD: The facility **is** a Prevention of Significant Deterioration (PSD)-major source of air pollution due to the potential SO_2 emissions being above 250 TPY, in accordance with Rule 62-212.400, F.A.C.

NSPS: The facility **does** operate units subject to the New Source Performance Standards (NSPS) of 40 Code of Federal Regulations (CFR) 60 and 40 CFR 60, Subpart A, NSPS General Provisions.

EU006- Portable Screening System: 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.

EU007: One Internal Combustion Engine (Emergency Diesel Engine) - New Source Performance Standards (NSPS), Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, 40 CFR 60, Subpart A.

NESHAP: The facility **does** operates units subject to the National Emissions Standards for Hazardous Air Pollutants (NESHAP) of 40 CFR 63.

RICE Air Compressor (EU009). New RICE ≤ 500 bhp meets the requirements of 40 CFR 63, Subpart ZZZZ- National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines and 40 CFR 63, Subpart NESHAP A- General Provisions by complying with 40 CFR 60, Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, 40 CFR 60, Subpart A- General Provisions.

CAIR: The facility **is not** subject to the Clean Air Interstate Rule (CAIR) set forth in Rule 62-296.470, F.A.C.

CAM: Compliance Assurance Monitoring (CAM) **does not** apply to any of the units at the facility.

PROJECT REVIEW

This project renews Title V Air Operation Permit No. 0190011-012-AV and incorporates Air Construction No. 0190011-015-AC.

1. Changes to Appendix RR, Facility-wide Reporting Requirements were updated in 2014.

Changes to FW Conditions: Electronic Reporting and Title V Annual Emissions Fees are combined.

2. Electronic Annual Operating Report and Title V Annual Emissions Fees. The information required by the Annual Operating Report for Air Pollutant Emitting Facility [Including Title V Source Emissions Fee Calculation] (DEP Form No. 62-210.900(5)) shall be submitted by April 1 of each year, for the previous calendar year, to the Department of Environmental Protection's Division of Air Resource Management. Each Title V source shall submit the annual operating report using the DEP's Electronic Annual Operating Report (EAOR) software, unless the Title V source claims a technical or financial hardship by submitting DEP Form No. 62-210.900(5) to the DEP Division of Air Resource Management instead of using the reporting software. Emissions shall be computed in accordance with the provisions of subsection 62-210.370(2), F.A.C. Each Title V source must pay between January 15 and April 1 of each year an annual emissions fee in an amount determined as set forth in subsection 62-213.205(1), F.A.C. The annual fee shall only apply to those regulated pollutants, except carbon monoxide and greenhouse gases, for which an allowable numeric emission-limiting standard is specified in the source's most recent construction permit or operation permit. Upon completing the required EAOR entries, the EAOR Title V Fee Invoice can be printed by the source showing which of the reported emissions are subject to the fee and the total Title V Annual Emissions Fee that is due. The submission of the annual Title V emissions fee payment is also due (postmarked) by April 1st of each year. A copy of the system-generated EAOR Title V Annual Emissions Fee Invoice and the indicated total fee shall be submitted to: **Major Air Pollution Source Annual Emissions Fee, P.O. Box 3070, Tallahassee, Florida 32315-3070.** Additional information is available by accessing the Title V Annual Emissions Fee On-line Information Center at the following Internet website: http://www.dep.state.fl.us/air/emission/tvfee.htm. [Rules 62-210.370(3), 62-210.900 & 62-213.205, F.A.C.; and, §403.0872(11), Florida Statutes (2013)]

{Permitting Note: Resources to help you complete your AOR are available on the electronic AOR (EAOR) website at: http://www.dep.state.fl.us/air/emission/eaor. If you have questions or need assistance after reviewing the information posted on the EAOR website, please contact the Department by phone at (850) 717-9000 or email at eaor@dep.state.fl.us.}

{Permitting Note: The Title V Annual Emissions Fee form (DEP Form No. 62-213.900(1)) has been repealed. ***A separate Annual Emissions Fee form is no longer required to be submitted by March 1st each year.****}*

Changes to New Source Performance Standards (NSPS), Subpart LL - Standards of Performance for Metallic Mineral Processing Plants:

3. E.4.:

The observer shall read opacity only when emissions are clearly identified as emanating solely from the affected facility being observed. A single visible emission observer may conduct visible emission observations for up to three fugitive, stack, or vent emission points within a 15-second interval. This option is subject to the following limitations:

(i) No more than three emission points are read concurrently;

(ii) All three emission points must be within a 70° viewing sector or angle in front of the observer such that the proper sun position can be maintained for all three points; and

(iii) If an opacity reading for any one of the three emission points is within 5 percent opacity of the application standard, then the observer must stop taking readings for the other two points and continue reading just that single point.

[40 CFR 60.386 (b) (2), Rule 62-297.401 & 62-297.310 (4)(a)2, F.A.C.]

4. Deleted Subsection G. Common Conditions because these are in the attached Combined Appendices.
5. The addition of EU008, Subsection G has been added to the permit.
6. The addition of EU009, Subsection H has been added to the permit.
7. GHG:

Total Green House Gas (GHG) Emissions

GHGs Mass-Based Emissions (TPY)		CO2e-Based Emissions (TPY)	
No. 6 Fuel Oil (1)	36082.2	No. 6 Fuel Oil (4)	36544.8
On-Spec Fuel Oil (2)	32324.8	On-Spec Fuel Oil (5)	32745.5
Diesel (3)	352.8	Diesel (6)	357.4

(1) GHG mass-based emissions totals were calculated by taking the sum of the CO2, N2O, CH4 emissions for No. 6 Fuel Oil GHG Mass-Based Emissions from all applicable emission units.

(2) GHG mass-based emissions totals were calculated by taking the sum of the CO2, N2O, CH4 emissions for On-Spec Fuel Oil GHG Mass-Based Emissions from all applicable emission units.

(3) GHG mass-based emissions totals were calculated by taking the sum of the CO2, N2O, CH4 emissions for Diesel Fuel Oil GHG Mass-Based Emissions from all applicable emission units.

(4) CO2e-based emissions totals were calculated by taking the sum of the CO2, N2O, CH4 emissions for No. 6 Fuel Oil GHG CO2e-Based Emissions from all applicable emission units.

(5) CO2e-based emissions totals were calculated by taking the sum of the CO2, N2O, CH4 emissions for On-Spec Fuel Oil GHG CO2e-Based Emissions from all applicable emission units.

(6) CO2e-based emissions totals were calculated by taking the sum of the CO2, N2O, CH4 emissions for Diesel Fuel Oil GHG CO2e-Based Emissions from all applicable emission units.

CONCLUSION

This project renews Title V Air Operation Permit No. 0190011-012-AV, which was issued on November 9, 2009 and incorporates Air Construction Permit No. 0190011-015-AC. 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 and 214. In accordance with the terms and conditions of this permit, the above named permittee is hereby authorized to operate the facility as shown on the application and approved drawing(s), plans, and other documents on file with the Permitting Authority.