FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

NORTHEAST DISTRICT
8800 BAYMEADOWS WAY WEST, SUITE 100
JACKSONVILLE, FLORIDA 32256

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Sent by Electronic Mail – Received Receipt Requested

PERMITTEE

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

Authorized Representative:
Mr. Clement J. Hilton, Plant Manager

Air Permit No. 0190011-015-AC
Permit Expires: xx/xx/xx

Trail Ridge Metallic Mineral Processing Facility
Air Construction Permit
(after-the-fact) Emergency RICE Generator and RICE Air Compressor

This is the final air construction permit, which authorizes the addition of an Emergency RICE Generator and a RICE Air Compressor after-the-fact. The proposed work will be conducted at the Trail Ridge Metallic Mineral Processing Facility, which is a Mineral Processing plant (Standard Industrial Classification No. 1099). The facility is located in Clay County 5 miles east of Starke off of SR 230 in Clay County, Florida. The UTM coordinates are Zone 17, 400.23 km East and 3308.58 km North; Latitude: 29° 54' 42" North and Longitude: 82° 02' 00" West.

This final permit is organized by the following sections.

Section 1. General Information

Section 2. Administrative Requirements

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 construction 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.

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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 Jacksonville, Florida

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Richard S. Rachal III, P.G.
Program Administrator
Waste and Air Resource Management Program

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Final Air Permit package (including the Final Determination and Final Permit) 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 DRAFT to the persons listed below.

Clement J. Hilton, Plant Manager- E.I. Dupont De Nemours & Co. (clement.j.hilton@dupont.com)
Connie Henderson, Environmental Manager- E.I. Dupont De Nemours & Co. (connie.henderson@dupont.com)
Veronica Sgro, P.E., Koogler and Associates (vsgro@kooglerassociates.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)

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FACILITY AND PROJECT DESCRIPTION

Existing Facility

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.

E.U. ID No.	Brief Description
-002	Zircore Kiln
-003	Zircon Kiln
-004	Ilmenite Dryer No. 2
-005	Product Handling and Transfer Operations- Fugitive Emissions
-006	Portable Screening System
-007	Internal Combustion Engine for EU 006

Proposed Project

Emergency RICE Generator and RICE Air Compressor. This project will add the following emissions units.

Facility ID No. 0190011

ID No.	Emission Unit Description
008	Emergency RICE Generator
009	RICE Air Compressor

FACILITY REGULATORY CLASSIFICATION

- The facility **is not** 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.

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SECTION 2. ADMINISTRATIVE REQUIREMENTS (DRAFT)

1. Permitting Authority: The permitting authority for this project is the Northeast District, Waste and Air Resource Management Program, Florida Department of Environmental Protection (Department). The Northeast District's mailing address is 8800 Baymeadows Way West, Suite 100, Jacksonville, Florida 32256, 904) 256-1700. All documents related to applications for permits to operate an emissions unit shall be submitted to the Northeast District Office.

2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Northeast District Office, Compliance Assurance. The mailing address and phone number of the Northeast District Office is: 8800 Baymeadows Way West, Suite 100, Jacksonville, Florida 32256, 904) 256-1700.

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.

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: The permittee shall notify the Compliance Authority upon commencement of construction. No new emissions unit shall be constructed and no existing emissions unit shall be modified without obtaining an air construction permit from the Department. Such permit shall be obtained prior to beginning construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]

7. Source Obligation:

   (a) At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by virtue of a relaxation in any enforceable limitation which was established after August 7, 1980, on the capacity of the source or modification otherwise to emit a pollutant, such as a restriction on hours of operation, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification.

   (b) At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by exceeding its projected actual emissions, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification.

   [Rule 62-212.400(12), F.A.C.]

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A. EU008 Emergency RICE Generator

This section of the permit addresses the following emissions unit.

EU008 Emergency RICE Generator.

ICE Class	Fuel	Mfg	Model No.	DOM	HP	L/Cyl	GEN Kw	Class
Emergency RICE	Diesel	Onan	100 DGDB	2/23/05	166	<30	122	Existing RICE ≤ 500 bhp

{This unit 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.}

EQUIPMENT

A.1. **Emergency RICE Generator**. The permittee is authorized to install an Emergency RICE Generator (after-the-fact).

[Application No. 0190011-015-AC]

EMISSION LIMITATIONS AND OPERATING REQUIREMENTS

A.2. For emergency stationary CI RICE located at an area source of HAP emissions:

- Change oil and filter every 500 hours of operation or annually, whichever comes first[1].
- Inspect air cleaner every 1,000 hours of operations or annually, whichever comes first, and replace as necessary.
- Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary[2].

[1] Sources have the option to utilize an oil analysis program as described in §63.6625(i) or (j) in order to extend the specified oil change requirement in Table 2d of this subpart.

[2] If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required in Table 2d of this subpart, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under federal, state, or local law has abated. Sources must report any failure to perform the management practice on the schedule required and the federal, state or local law under which the risk was deemed unacceptable.

[40 CFR 63.6603(a) and Table 2d Item 4]

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A.3. Fuel Requirements.

None.

[40 CFR 63.6604(b)]

GENERAL REQUIREMENTS

A.4. You must be in compliance with the emission limitations, operating limitations, and other requirements in this subpart that apply to you at all times.

At all times you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

[40 CFR 63.6605(a) and (b)]

TESTING

A.5. Testing and Initial Compliance or Performance Tests.

- No requirements for existing emergency units.

[40 CFR 63.6610]

MONITORING, INSTALLATION, COLLECTION, OPERATION AND MAINTENANCE REQUIREMENTS.

A.6. Existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a minor source of HAP emissions, you must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

[40 CFR 63.6625(e) and Table 6, Item 9]

A.7. Existing emergency stationary RICE located at an area source of HAP emissions, must install a non-resettable hour meter if one is not already installed.

[40 CFR 63.6625(f)]

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A.8. <u>During Periods of Startup</u>.

- Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.
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[40 CFR 63. 6625(h)]

- You have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 business days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.

[40 CFR 63. 6625(i)]

MONITOR AND COLLECT DATA TO DEMONSTRATE CONTINUOUS COMPLIANCE

A.9. Except for monitor malfunctions, associated repairs, required performance evaluations, and required quality assurance or control activities, you must monitor continuously at all times that the stationary RICE is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

[40 CFR 63.6635(b) and Table 2d, Item 4]

A.10. These existing emergency CI $\leq$ 500 hp must operate according to requirements nos.1-3 below. In order for the engine to be considered an emergency stationary RICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hrs per year, as described in nos.1-3 below is prohibited. If you do not operate the engine according to requirements nos. 1-3 below, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.

1. There is no time limit on the use of emergency stationary RICE in emergency situations.

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A.10. continued:

2. Operate your emergency stationary RICE for any combination of the purposes below for a maximum of 100 hrs per calendar year. Any operation for non-emergency situations as allowed by no.3 counts as part of the 100 hrs per year allowed.
   a. Maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine; and
   b. EDR for periods in EEA Level 2 is called, [as defined in the NERC Reliability Standard EOP-002-3]
   c. Where there is a deviation of voltage or frequency deviation of 5 % or greater below standard.

3. Operate for up to 50 hrs per year in non-emergency situations. These 50 hours are counted as part of the 100 hours/yr for maintenance and testing and emergency demand response (EDR). The 50 hours/yr cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

[40 CFR 63.6640(f)(1)-(3)]

A.11. <u>Continuous Compliance</u>.

These existing emergency CI $\leq$ 500 hp must demonstrate continuous compliance with operating requirements in Table 2d (Work management practices) that apply by:

- Operate and maintain according to the manufacturer's emission-related operation and maintenance instructions; or
- Develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

[40 CFR 63.6640(a) and Table 6 item 9]

REPORTS

A.12. The facility must report each instance in which you did not meet each emission and/or operating limitation that apply, (**see Specific Condition No. A. 11.**)

[40 CFR 63.6640(b) and Table 6 Row 9]

A.13. <u>Notifications</u>.

- No requirements for existing CI emergency $\leq$ 500 hp.

[40 CFR 63.6645]

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A.14. Recordkeeping.

- Existing CI $\leq$ 500 hp:

  - You must keep the records required in Table 6 of this subpart to show continuous compliance with each emission or operating limitation that applies to you.

  - You must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan if you own or operate any of the following stationary RICE;

  - You must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation.

[40 CFR 63.6655(d), and (e)]

A.15. Records. You must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation.

[40 CFR 63.6655(f)]

A.16. Records Retention.

(a) Your records must be in a form suitable and readily available for expeditious review according to § 63.10(b)(1).

(b) As specified in § 63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to § 63.10(b)(1).

[40 CFR 63.6660(a)-(c)]

A.17. This EU is subject to Table 8 to Subpart ZZZZ of Part 63—Applicability of General Provisions to Subpart ZZZZ.

[40 CFR 63.6665]

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B. EU009 RICE Air Compressor

This section of the permit addresses the following emissions unit.

009 RICE Air Compressor.

ICE Class	Fuel	Mfg	Model No.	DOM	HP	L/Cyl	GEN Kw	Class
RICE Air Compressor	Diesel	Atlas Copco	XAS 185	7/20/12	49	<30	36	New RICE ≤ 500 bhp

{This unit is subject to 40 CFR 60, Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, 40 CFR 60, Subpart A- General Provisions and 40 CFR 63, Subpart ZZZZ- National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines and 40 CFR 63, Subpart A- General Provisions.}

EQUIPMENT

B.1. **RICE Air Compressor**. The permittee is authorized to install an RICE Air Compressor (after-the-fact).

[Application No. 0190011-015-AC]

EMISSION LIMITATIONS AND OPERATING REQUIREMENTS

B.2. Owners and operators of 2007 model year and later non-emergency stationary CI ICE with a displacement of less than 30 liters per cylinder must comply with the emission standards for new CI engines in §60.4201 for their 2007 model year and later stationary CI ICE, as applicable.

- Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later **non-emergency** stationary CI ICE with a maximum engine **power less than or equal to 2,237 kilowatt (KW) (3,000 horsepower (HP))** and a displacement of less than 10 liters per cylinder to the certification emission standards for new nonroad CI engines in 40 CFR 89.112, 40 CFR 89.113, 40 CFR 1039.101, 40 CFR 1039.102, 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, and 40 CFR 1039.115, as applicable, for all pollutants, for the same model year and maximum engine power.

[40 CFR 60.4201(a)] and 40 CFR 60.4204(b)]

B.3. Owners and operators of stationary CI ICE must operate and maintain stationary CI ICE that achieve the emission standards as required in §§60.4204 over the entire life of the engine.

[40 CFR 60.4206]

B.4. Owners and operators of stationary CI ICE subject to this subpart with a displacement of less than 30 liters per cylinder that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(c) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted.

[40 CFR 60.4207(b)]

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B. EU009 RICE Air Compressor

COMPLIANCE REQUIREMENTS

B.5. Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions;

- Change only those emission-related settings that are permitted by the manufacturer; and
- Meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply to you.
- Purchasing an engine certified to the emission standards in §60.4204(b), or §60.4205(b) or (c), as applicable, for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications

[40 CFR 60.4211(a) and (c)]

B.6. If you do not install, configure, operate, and maintain your engine and control device according to the manufacturer's emission-related written instructions, or you change emission-related settings in a way that is not permitted by the manufacturer, you must demonstrate compliance as follows:

- You must keep a maintenance plan and records of conducted maintenance to demonstrate compliance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, if you do not install and configure the engine and control device according to the manufacturer's emission-related written instructions, or you change the emission-related settings in a way that is not permitted by the manufacturer, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of such action.

[40 CFR 60.4211(g)(1)]

TESTING

B.7. **<u>Testing and Initial Compliance or Performance Tests</u>.**

- No requirements for non-emergency units.

[40 CFR 60.4212]

NOTIFICATION, REPORTS, AND RECORDS FOR OWNERS AND OPERATORS

B.8. No requirements for non-emergency stationary CI ICE units ≤ 3,000 HP.

[40 CFR 60.4214]

B.9. This EU is subject to Table 8 to Subpart IIII of Part 60—Applicability of General Provisions to Subpart IIII.

[40 CFR 60.4218]

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