



FLORIDA DEPARTMENT OF Environmental Protection

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2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Rick Scott
Governor

Carlos Lopez-Cantera
Lt. Governor

Noah Valenstein
Secretary

PERMITTEE

Titan Florida, LLC
11000 Northwest 121st Way
Medley, Florida 33178

Authorized Representative:
William Kissel, Senior Environmental Manager

Air Permit No. 0250020-052-AC
Permit Expires: 12/31/2022
Minor Air Construction Permit
Pennsuco Complex
Dry Sorbent Injection System

PROJECT

This is the final air construction permit, which authorizes the installation of dry sorbent injection (DSI) system on the kiln system. The proposed work will be conducted at the existing Pennsuco Complex, which is categorized under Standard Industrial Classification No. 3241. The facility is in Miami-Dade County at 11000 NW 121st Way, in Medley, Florida. The UTM coordinates are Zone 17, 562.27 kilometers (km) East and 2861.7 km North.

This final permit is organized into the following sections: Section 1 (General Information); Section 2 (Administrative Requirements); Section 3 (Emissions Unit Specific Conditions); and 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.

STATEMENT OF BASIS

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.

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 Tallahassee, Florida

For:

Syed Arif, P.E., Program Administrator
Office of Permitting and Compliance
Division of Air Resource Management

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Final Air Construction Permit package 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 the date indicated below to the following persons.

Mr. William Kissel, Titan Florida, LLC: wkissel@titanamerica.com

Mr. Max Lee, Ph.D., P.E., Koogler and Associates, Inc.: mlee@kooglerassociates.com

Mr. Vincent Warger, Koogler and Associates, Inc.: vwarger@kooglerassociates.com

Mr. Bernardo Beiler, P.E., Miami-Dade RER: bernardo.beiler@miamidade.gov

Ms. Lynn Searce, DEP OPC: lynn.searce@dep.state.fl.us

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.

SECTION 1. GENERAL INFORMATION

FACILITY DESCRIPTION

Titan Florida, LLC (Titan) operates the Pennsuco Facility in Medley, Miami-Dade County, Florida. The facility consists of a dry process Portland cement plant, an aggregate plant, two batch “ready-mix” concrete plants, and a cement block plant. The Portland cement plant has an allowable production rate of 2,190,000 tons/year of clinker and 2,400,000 tons/year of cement. It includes fuel and raw material storage, feed bins, a coal mill, a dry process pyroprocessing line, transfer equipment, finish mills, clinker and cement silos, and product packaging and load out facilities.

The facility consists of the following emissions units (EU):

EU No.	Emission Unit Description
010	Finish Mill System: Finish Mill No. 1
011	Finish Mill System: Finish Mill No. 2
012	Finish Mill System: Finish Mill No. 3
013	Finish Mill System: Finish Mill No. 4
030	Finish Mill System: Finish Mill No. 6
014	Cement Handling System: Cement Storage Silos. 1 through 12
015	Cement Handling System: Cement Distribution, Rail and Truck Loadout/Mobile Cementitious Material Sack Loadout System
016	Cement Handling System: Cement Packhouse
022	Nonmetallic Mineral Processing Plant Equipment and Operations at Aggregate Plant Subject to 40 CFR 60, Subpart OOO
023	Nonmetallic Mineral Processing Plant Equipment and Operations at Aggregate Plant NOT Subject to 40 CFR 60, Subpart OOO
024	Concrete Block Plant
025	Two Concrete Batch Ready Mix Plants
026	Coal and Petcoke Handling System
027	Clinker Handling and Storage System
028	Pyroprocessing/Raw Mill System
029	Raw Material Handling System
031	Unregulated Emissions Units and/or Activities: Fugitive Emissions
032	Cementitious Sack Loadout System
034	Transloading of Cementitious Material
036	Emergency Diesel Fuel Fired Air Compressor
038	Emergency Diesel Fuel Fired Generators Subject to 40 CFR 63, Subpart ZZZZ
039	Emergency Diesel Fuel Fired Generators Subject to 40 CFR 60, Subpart IIII

PROPOSED PROJECT

The applicant submitted an application to the Department on June 20, 2018, ([Link to application](#)) requesting authorization to install a DSI system on the kiln system. The DSI system will be used to inject sorbent into the exhaust stream to control mercury (Hg) emissions or acid gases, such as hydrogen chloride (HCl), depending on the type of sorbent.

The following emissions unit will be affected by this project.

EU No.	Emission Unit Description
028	Pyroprocessing/Raw Mill System

SECTION 1. GENERAL INFORMATION

FACILITY REGULATORY CLASSIFICATION

- The facility is a major source of hazardous air pollutants (HAP).
- The facility does not operate units subject to the acid rain provisions of the Clean Air Act.
- The facility is a Title V major source of air pollution in accordance with Chapter 62-213, F.A.C.
- The facility is a major stationary source in accordance with Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality.
- The facility operates units subject to the New Source Performance Standards (NSPS) of Title 40 Part 60 of the Code of Federal Regulations (CFR).
- The facility operates units subject to the National Emissions Standards of Hazardous Air Pollutants (NESHAP) of 40 CFR 63.

SECTION 2. ADMINISTRATIVE REQUIREMENTS

1. Permitting Authority: The permitting authority for this project is the Office of Permitting and Compliance in the Division of Air Resource Management of the Department of Environmental Protection (Department). The Office of Permitting and Compliance mailing address is 2600 Blair Stone Road (MS #5505), Tallahassee, Florida 32399-2400.
2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Miami-Dade County, Department of Regulatory and Economic Resources at 701 Northwest 1st Court, Suite 400, Miami, Florida 33136.
3. Appendices: The following Appendices are attached as a part of this permit: Appendix A (Citation Formats and Glossary of Common Terms); Appendix B (General Conditions); Appendix C (Common Conditions); Appendix D (Common Testing Requirements); Appendix E (40 CFR 60, Subpart A); Appendix F (40 CFR 60, Subpart DDDD); and Appendix G (Rule 62-204.800(9)(f), F.A.C.)
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. Construction and Expiration: The expiration date shown on the first page of this permit provides time to complete the physical construction activities authorized by this permit, complete any necessary compliance testing, and obtain an operation permit. Notwithstanding this expiration date, all specific emissions limitations and operating requirements established by this permit shall remain in effect until the facility or emissions unit is permanently shut down. For good cause, the permittee may request that a permit be extended. Pursuant to Rule 62-4.080(3), F.A.C., such a request shall be submitted to the Permitting Authority in writing before the permit expires. [Rules 62-4.070(3) & (4), 62-4.080 & 62-210.300(1), F.A.C.]
8. Application for Title V Permit: This permit authorizes construction of the permitted emissions units and initial operation to determine compliance with Department rules. A Title V air operation permit is required for regular operation of the permitted emissions unit. The permittee shall apply for a Title V air operation permit at least 90 days prior to expiration of this permit, but no later than 180 days after commencing operation. To apply for a Title V operation permit, the applicant shall submit the appropriate application form, compliance test results, and such additional information as the Department may by law require. The application shall be submitted to the appropriate Permitting Authority with copies to the Compliance Authority. [Rules 62-4.030, 62-4.050 and Chapter 62-213, F.A.C.]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

A. EU 028, Pyroprocessing/Raw Mill System

This section of the permit addresses the following emissions unit.

EU No.	Emission Unit Description
028	Pyroprocessing/Raw Mill System

{Permitting note: At the election of the permittee, this emissions unit is currently regulated Rule 62-204.800(9)(f), F.A.C., which incorporates the requirements of 40 CFR 60, Subpart DDDD- Emission Guidelines and Compliance Times for Commercial and Industrial Solid Waste Incineration Units.}

PREVIOUS APPLICABLE REQUIREMENTS

1. Other Permits: The conditions of this permit supplement all previously issued air construction and operation permits for the kiln system. Unless otherwise specified, these conditions are in addition to all other applicable permit conditions and regulations. [Rule 62-4.070, F.A.C.]

EQUIPMENT

2. Dry Sorbent Injection (DSI) System: The owner or operator is authorized to install and operate a DSI system and ancillary equipment. The DSI system shall vent to the kiln exhaust; the system is considered part of the equipment. [Application No. 0250020-052-AC]

PERFORMANCE RESTRICTIONS

3. Methods of Operation: Each dry sorbent injection system shall inject sorbent between the kiln ID fan outlet and the main kiln baghouse primarily to control Hg emissions from the kiln. [Application No. 0250020-052-AC]
4. Authorized Sorbents: The owner or operator is authorized to use activated carbon, sodium bicarbonate, hydrated lime, and sodium sesquicarbonate (trona) as sorbents for this DSI system. The owner or operator shall notify the Department of the use of a new sorbent (i.e., a sorbent not authorized by this permit). Submit the notification to DARM_Permitting@dep.state.fl.us. [Rule 62-210.200(PTE), F.A.C., and Application No. 0250020-052-AC]

{Permitting Note: Per Rule 62-213.410, Changes Without Permit Revision, F.A.C ([Link to Rule](#)) once this AC permit has been incorporated into the facility's Title V air operation permit, the permittee may take advantage of this rule where appropriate.}

5. Hours of Operation: The hours of operation are not limited (8,760 hours/year). [Rule 62-210.200(PTE), F.A.C.]

TESTING REQUIREMENTS

6. Dry Scrubber Operating Limits: Compliance with HCl emissions limits in Rule 62-204.800(9)(f), F.A.C. shall be demonstrated by Performance test (Method 321 at 40 CFR part 63, appendix A of this part) or HCl CEMS if a wet scrubber or dry scrubber is not used, as specified in 40 CFR 60.2710(j). If the permittee uses a dry scrubber to comply with the emission limitations in Rule 62-204.800(9)(f), F.A.C., the permittee must measure the injection rate of each sorbent during the performance testing, if HCl is not continuously monitored through an HCl CEMS. The operating limit for the injection rate of each sorbent is calculated as the lowest 1-hour average injection rate of each sorbent measured during the most recent performance test demonstrating compliance with the HCl emission limitations. [Rule 62-204.800(9)(f), FAC; and 40 CFR 60.2675(g) & 60.2710(j)]
7. Dry Scrubber Monitoring Requirements: If the permittee uses a dry scrubber to comply with the emission limits in Rule 62-204.800(9)(f), F.A.C., the permittee must monitor the injection rate of each sorbent and maintain the 3-hour block averages at or above the operating limits established during the HCl performance test. [Rule 62-204.800(9)(f), FAC; and 40 CFR 60.2730(s)]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

A. EU 028, Pyroprocessing/Raw Mill System

{Permitting Note: This condition only applies if the method of HCl monitoring is by performance testing. Injection rate monitoring is not required if HCl CEMS is used for compliance.}

OTHER REQUIREMENTS

8. Notification of Startup: The owner or operator shall notify the Compliance Authority in writing within 15 days after startup of the new DSI system. [Rule 62-4.070(3), F.A.C.]