STATEMENT OF BASIS

Title V Air Operation Permit Revision
Permit No. 0571290-008-AV

APPLICANT

The applicant for this project is Titan America, LLC. The applicant's responsible official and mailing address are: Cindy Burns, Titan America, LLC, 455 Fairway Dr., Deerfield Beach, FL 33441.

FACILITY DESCRIPTION

The applicant operates the Titan America, LLC, which is located in Hillsborough County at 4219 Maritime Blvd., Tampa, FL 33605.

Titan America, LLC operates a pneumatic concrete raw materials operation. Concrete raw materials is defined as Portland cement Types I, II, III, IV, V, white cement, masonry cement, flyash, slag cement, natural and synthetic gypsum, lime, cement kiln dust, natural pozzolana, and artificially produced pozzolana materials. The facility receives concrete raw materials by ship, truck, and railcar. During truck and railcar unloading, concrete raw materials are pneumatically transferred using the railcar unloading spout and/or one truck unloading spout to either the filter/receiver, which directs material to the four main silos and/or the two interstitial silos, or directly to the two interstitial silos. The unloading spouts are located on the south side of Silo No. 4. Material is pneumatically unloaded using air from either the truck and railcar's onboard pumps or electrical powered compressors located in the silo structure. When material is directed to the filter/receiver, PM emissions are controlled by a 25,000 DSCFM F.L. Schmidt, Model No. 398FR12(6), jet pulse baghouse. When material is directed to the two interstitial silos, PM emissions are controlled by each silo's 1,790 DSCFM F.L. Schmidt Airtech, Model No. 48DS8FM, jet pulse baghouse.

Ships are unloaded using a barge mounted ship unloading system which consists of a screw auger, a screw conveyor, a surge vessel, and a pneumatic transfer operation system utilizing four charging vessels. The vertical screw auger is used to remove the concrete raw materials from the shiphold. At the top of the vertical screw auger, the concrete raw materials are transferred to a horizontal screw conveyor and then into the surge vessel. The screw auger and screw conveyor have a maximum concrete raw materials unloading capacity of 440 tons per hour (TPH). From the surge vessel, the concrete raw materials are pneumatically loaded into one of four charging vessels. Compressed air is used to pressurize the charging vessels. Once pressurized, the concrete raw materials are pneumatically transferred to the filter/receiver which directs material to the four main silos and/or the two interstitial silos. The surge vessel(s) to the silo(s) transfer operation has a maximum transfer rate of 881 tons/hour. If the material is directed to the filter/receiver, PM emissions are controlled by the 25,000 DSCFM jet pulse baghouse described above. If the material is directed to the two interstitial silos, PM emissions are controlled by each silo's 1,790 DSCFM jet pulse baghouse described above. Particulate matter (PM) emissions from the loading of the surge vessel by the screw conveyor system and from the pneumatic loading of the charging vessels are controlled using two 1,400 DSCFM DCE, Model No. DLM V20/10F5, jet pulse baghouses.

Electricity to power the ship unloading system is provided by one 575 HP (peak load) diesel fuel fired electric generator and one 1,280 HP (peak load) diesel fuel fired electric generator. The compressed air for the charging vessels is provided by five 440 HP diesel fuel fired air compressors and one 475 HP Caterpillar, C-15, Industrial diesel fuel fired air compressor. Each compressor and generator is

authorized to operate 3,395 hours/year. The fuel oil for the engines is stored in a 14,000 gallon vertical fixed roof storage tank located within the barge. Because emissions from the storage tank are calculated to be 23.2 lbs/year, based on a throughput of 938,089 gallons/year, using the EPA TANKS 4.09D program, the storage tank is considered an insignificant emissions unit pursuant to Rule 62-213.430(6), F.A.C.

Concrete raw materials are loaded into trucks and railcars using two loading stations. Loading Station No. 1 is used to load trucks. Loading Station No. 2 is used to load trucks and railcars. The maximum loading rate of each station is 300 TPH. Emissions from the Truck Loading Station No. 1 are controlled by a 2,000 DSCFM DCL, Model No. CFM 330-1F14, jet pulse baghouse. Emissions from the Truck and Railcar Loading Station No. 2 are controlled by a 2,000 DSCFM DCL, Model No. CFM 330-1F14, jet pulse baghouse.

In addition, the facility operates a ship loading operation at Hooker's Point Berth 219 or any other berth controlled by the Tampa Port Authority. Ships can be loaded by using either of three different types of loading methods. Concrete raw materials can be loaded directly into ships from the facility's silos. Also, concrete raw materials can be loaded into ships by using trucks and/or railcars that are loaded onsite from the silos. A third loading alternative would be loading a ship with trucks that bring concrete raw materials from other facilities.

A maximum of twelve trucks and/or railcars at a time can load concrete raw materials directly into a ship using the trucks and/or railcars' onboard pneumatic pumps. The trucks and/or railcars pneumatically load material into ships at a maximum rate of 300 tons/hour and 750,000 tons per twelve consecutive month period.

Particulate matter emissions from the ship loading operation are controlled by either a portable baghouse, which may be rented from a third party company as needed or by a shipboard baghouse with a maximum flowrate of 48,179 DSCFM. Either the portable baghouse or the shipboard baghouse shall be used during ship loading. The portable baghouse is powered by a 99 HP or less diesel fired engine. The make and model number of the portable and shipboard baghouses may change as long as the specifications in the permit are met.

Concrete raw materials are also loaded directly into ships using a pneumatic system referred to as direct exporting. Concrete raw materials from the storage silos are gravity fed to the railcar loadout spout and then into an enclosed receiving hopper. The hopper serves as a funnel to transition the concrete raw materials from the loadout spout to the pump. An electricity powered pump and three electricity powered air compressors pneumatically transfer the concrete raw materials to the 12" ship loading lines through a flexible hose and a pipe extension. The concrete raw materials are then pneumatically transferred into a ship through the 12" ship loading lines. The Truck and Railcar Loading Station No. 2 baghouse controls particulate matter emissions from the direct export operation. In addition, the ship's dust collector or the portable baghouse controls particulate matter emissions from the ship loading operation.

PROJECT DESCRIPTION

The purpose of this permitting project is to incorporate the air construction (AC) Permit No. 0571290-007-AC into the current Title V Operating Permit No. 0571290-006-AV.

STATEMENT OF BASIS

PROCESSING SCHEDULE AND RELATED DOCUMENTS

Title V Permit Revision Application received September 5, 2012
DRAFT/PROPOSED Title V Permit Revision issued November 21, 2012
DRAFT/PROPOSED Title V Permit Revision published December 16, 2012
Proof of the Notice of Intent (NOI) e-mailed to the EPA on December 26, 2012
FINAL V Permit Revision issued February 8, 2013

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 not a Prevention of Significant Deterioration (PSD)-major source of air pollution in accordance with Rule 62-212.400, F.A.C.

NSPS: The facility operates units subject to the New Source Performance Standards (NSPS) of 40 Code of Federal Regulations (CFR) 60, specifically 40 CFR 60 Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.

NESHAP: The facility operates units subject to the National Emissions Standards for Hazardous Air Pollutants (NESHAP) of 40 CFR 63, specifically 40 CFR 63 Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.

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) applies to Emission Unit Nos. 001 - Filter/Receiver; 002 - Truck Loading Station No. 1; 003 – Truck and Railcar Loading Station No. 2; 006 - Interstitial Silo No. 5; 007 - Interstitial Silo No. 6; and 021 - Ship Loading. The emission units are subject to CAM for the regulated emission of particulate matter.

PROJECT REVIEW

The AC Permit authorized the facility a different method for handling the aggregate material, in order to improve their efficiency in processing material and storage pile formation. The previous method of transfer was specified as a direct drop to a storage pile from the ship's conveyor, transfer to a second pile by front-end loader, and loadout to trucks or railcars as needed. The new method of transfer involves the receiving of aggregate to a dockside hopper, dropping of material into trucks, transport and loadout to a RazerTail conveyor from the truck, transferring from the RazerTail conveyor to a radial stacker, and final drop to storage piles. Two conveying systems, which each consists of a RazerTail conveyor and radial stacker, are present on-site to make multiple storage piles. Two similar diesel-powered generators with a maximum rating of 324 HP each are used power the two conveying systems.

The AC Permit also authorized a screening and washing operation. However, as requested in the permit application and confirmed by the e-mail on October 8, 2012, Titan wants to remove the screening and washing operation with the associated diesel generators from the Title V operating permit. The screening and washing operations were operated briefly under a permitting exemption issued on March 14, 2012 but were then removed from the site and Titan does not foresee bringing this operation on-site in the future.

The AC permit established the PTE for PM emissions from EU 014 (aggregate material handling) as 11.7 TPY and the PTE for NOx emissions from EU 024 (2 diesel generators for conveying system and 2 diesel generators for screening/washing system) as 13.0 TPY. In order to avoid PSD, the AC Permit established an hour limit of 3,395 hr/yr for all diesel engines at the facility, which included the diesel generators/compressors (EUs 008, 009, 010 and 013) at the dock.

Due to the removal of the screening/washing system with the (2) associated diesel generators from this Title V revision, the PTE for PM emissions from EU 014 (aggregate material handling) will be reduced to 8.1 TPY from 11.7 TPY, and the PTE for NOx emissions from EU 024 will be reduced to 7.3 TPY from 13.0 TPY since the EU 024 will only consist of 2 diesel generators for conveying system. Therefore, the facility-wide PTE for NOx, PM, CO, SO_2, VOC and HAPs will be of 215.3 TPY, 74.6 TPY, 54.9 TPY, 22.6 TPY, 16.7 TPY and 0.5 TPY, respectively. There will be no change on the hour limit of 3,395 hr/yr for all diesel engines at the facility, which includes the diesel generators/compressors (EUs 008, 009, 010 and 013) at the dock.

The facility is subject to Rule 62-296.711, F.A.C. - Materials Handling, Sizing, Screening, Crushing and Grinding Operations and Chapter 1-3.52, Rules of the EPC, which limits visible emissions to a 5% opacity standard for all of the material handling operations. Also, the facility operates ten (10) diesel fuel fired generators and compressors, which are subject to the requirements under 40 CFR 60 Subpart IIII and 40 CFR 63 Subpart ZZZZ, which are reflected in Appendix ICE. The following is a description of this equipment. The ship unloading system is powered by one (1) 575 HP diesel fuel fired electric generator (EU 009) and one (1) 1,280 HP diesel fuel fired electric generator (EU 010). The compressed air for the charging vessels is provided by five (5) 440 HP diesel fuel fired air compressors (EU 008) and one (1) 475 HP Caterpillar, C-15, Industrial diesel fuel fired air compressor (EU 013). Two (2) similar diesel-powered generators with a maximum rating of 324 HP (EU 024) are used power the two aggregate conveying systems. EUs 008, 009, and 010 are not subject to 40 CFR 60 Subpart IIII because these engines were manufactured prior to April 1, 2006. EUs 013 and 024 are subject to 40 CFR 60 Subpart IIII because the engines were manufactured after April 1, 2006. Also, all of the engines in this subsection are subject to 40 CFR 63 Subpart ZZZZ.

The DRAFT/PROPOSED Title V Permit Revision was issued on November 21, 2012. Titan America published the Notice of Intent (NOI) to issue the Title V permit in the Tampa Bay Times on December 16, 2012, and e-mailed the proof of the NOI to the EPA on December 26, 2012. No comments were received from the public since it was published. However, comments were received from the facility.

On December 6, 2012, Titan America's consultant, Aubrey Jones, sent an e-mail to EPC staff and requested some minor edits regarding the DRAFT/PROPOSED Title V permit. After reviewing and based on the minor nature of the comments, EPC staff agreed to make the changes as requested in the FINAL Title V Permit Revision.

CONCLUSION

This project revises Title V air operation permit No. 0571290-006-AV, which was issued on August2, 2012. This Title V air operation permit revision is issued under the provisions of Chapter 403, Florida Statues (F.S.), and Chapters 62-4, 62-210 and 62-213, F.A.C.