TECHNICAL EVALUATION
&
PRELIMINARY DETERMINATION

APPLICANT

Hanson Pipe & Precast, LLC
55 Dritches-Hayes-Clary Avenue
Gretna, Florida 32332

Gretna Facility
Facility ID No. 0390039

PROJECT

Project No. 0390039-004-AC
Application for Minor Source Air Construction Permit
Project Name: Addition of Concrete Batch Plant and Portable Crusher

COUNTY

Gadsden, Florida

PERMITTING AUTHORITY

Florida Department of Environmental Protection
Air Resource Section
Northwest District Office
160 W. Government Street, Suite 308
Pensacola, Florida 32502-5740

June 16, 2011

1. GENERAL PROJECT INFORMATION

Air Pollution Regulations

Projects at stationary sources with the potential to emit air pollution are subject to the applicable environmental laws specified in Section 403 of the Florida Statutes (F.S.). The statutes authorize the Department of Environmental Protection (Department) to establish regulations regarding air quality as part of the Florida Administrative Code (F.A.C.), which includes the following applicable chapters: 62-4 (Permits); 62-204 (Air Pollution Control – General Provisions); 62-210 (Stationary Sources – General Requirements); 62-212 (Stationary Sources – Preconstruction Review); 62-213 (Operation Permits for Major Sources of Air Pollution); 62-296 (Stationary Sources - Emission Standards); and 62-297 (Stationary Sources – Emissions Monitoring). Specifically, air construction permits are required pursuant to Rules 62-4, 62-210 and 62-212, F.A.C.

In addition, the U. S. Environmental Protection Agency (EPA) establishes air quality regulations in Title 40 of the Code of Federal Regulations (CFR). Part 60 specifies New Source Performance Standards (NSPS) for numerous industrial categories. Part 61 specifies National Emission Standards for Hazardous Air Pollutants (NESHAP) based on specific pollutants. Part 63 specifies NESHAP based on the Maximum Achievable Control Technology (MACT) for numerous industrial categories. The Department adopts these federal regulations on a quarterly basis in Rule 62-204.800, F.A.C.

Glossary of Common Terms

Because of the technical nature of the project, the permit contains numerous acronyms and abbreviations, which are defined in Appendix A of this permit.

Facility Description and Location

Hanson Pipe & Precast is an existing concrete pipe manufacturer (Standard Industrial Classification No. 3273). The facility is located in Gadsden County at 55 Dritches-Hayes-Clary Avenue in Gretna, Florida. The UTM coordinates are Zone 16, 724.1 km East, and 3389.12 km North. This site is in an area that is in attainment (or designated as unclassifiable) for all air pollutants subject to state and federal Ambient Air Quality Standards (AAQS).

Facility Regulatory Categories

- 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.
- The facility is not a Title V major source of air pollution in accordance with Chapter 213, F.A.C.
- The facility is not a major stationary source in accordance with Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality.

Project Description

The applicant proposes to construct a new concrete batch plant and to use a diesel-fired portable crusher brought on site as needed from a third party to crush waste concrete debris. Hanson is also proposing to commence production of other precast concrete products in addition to concrete pipes and update the description of existing emission units to accurately define-operations at the facility.

Processing Schedule

February 24, 2011	Received the application for a minor source air pollution construction permit.
March 14, 2011	Requested additional information.
April 8, 2011	Received additional information; application complete.

2. PSD APPLICABILITY

General PSD Applicability

For areas currently in attainment with the state and federal AAQS or areas otherwise designated as unclassifiable, the Department regulates major stationary sources of air pollution in accordance with Florida's PSD preconstruction review program as defined in Rule 62-212.400, F.A.C. Under preconstruction review, the Department first must determine if a project is subject to the PSD requirements ("PSD applicability review") and, if so, must conduct a PSD preconstruction review. A PSD applicability review is required for projects at new and existing major stationary sources. In addition, proposed projects at existing minor sources are subject to a PSD applicability review to determine whether potential emissions *from the proposed project itself* will exceed the PSD major stationary source thresholds. A facility is considered a major stationary source with respect to PSD if it emits or has the potential to emit:

- 250 tons per year or more of any regulated air pollutant; or
- 100 tons per year or more of any regulated air pollutant and the facility belongs to one of the following 28 PSD-major facility categories: fossil fuel-fired steam electric plants of more than 250 million British thermal units per hour heat input, coal cleaning plants (with thermal dryers), Kraft pulp mills, portland cement plants, primary zinc smelters, iron and steel mill plants, primary aluminum ore reduction plants, primary copper smelters, municipal incinerators capable of charging more than 250 tons of refuse per day, hydrofluoric, sulfuric, and nitric acid plants, petroleum refineries, lime plants, phosphate rock processing plants, coke oven batteries, sulfur recovery plants, carbon black plants (furnace process), primary lead smelters, fuel conversion plants, sintering plants, secondary metal production plants, chemical process plants, fossil fuel boilers (or combinations thereof) totaling more than 250 million British thermal units per hour heat input, petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels, taconite ore processing plants, glass fiber processing plants and charcoal production plants.

Once it is determined that a project is subject to PSD preconstruction review, the project emissions are compared to the "significant emission rates" defined in Rule 62-210.200, F.A.C. for the following pollutants: carbon monoxide (CO); nitrogen oxides (NO_X); sulfur dioxide (SO_2); particulate matter (PM); particulate matter with a mean particle diameter of 10 microns or less (PM_{10}); volatile organic compounds (VOC); lead (Pb); fluorides (Fl); sulfuric acid mist (SAM); hydrogen sulfide (H_2S); total reduced sulfur (TRS), including H_2S; reduced sulfur compounds, including H_2S; municipal waste combustor organics measured as total tetra- through octa-chlorinated dibenzo-p-dioxins and dibenzofurans; municipal waste combustor metals measured as particulate matter; municipal waste combustor acid gases measured as SO_2 and hydrogen chloride (HCl); municipal solid waste landfills emissions measured as non-methane organic compounds (NMOC); and mercury (Hg). In addition, significant emissions rate also means any emissions rate or any net emissions increase associated with a major stationary source or major modification which would construct within 10 kilometers of a Class I area and have an impact on such area equal to or greater than 1 $\mu g/m^3$, 24-hour average.

If the potential emission exceeds the defined significant emissions rate of a PSD pollutant, the project is considered "significant" for the pollutant and the applicant must employ the Best Available Control Technology (BACT) to minimize the emissions and evaluate the air quality impacts. Although a facility or project may be *major* with respect to PSD for only one regulated pollutant, it may be required to install BACT controls for several "significant" regulated pollutants.

<u>PSD Applicability for Project</u>

As provided in the application, the following table summarizes potential emissions and PSD applicability for the project.

Table A. Potential Emissions (Tons/Year) and PSD Applicability

Pollutant (TPY)	Pre-Project Potential Emissions	Contempo-raneous Emissions	Post Project Potential Emissions	Total Emissions Change	Significant Emissions Rate	Subject to PSD
CO	0.22		1.50	1.28	100	NO
NO_X	1.71		8.28	6.57*	40	NO
PM/PM_{10}	1.68		10.5	8.82	25/15	NO
SO_2	0.01		0.57	0.56	40	NO
VOC	99.0		99.0	Limits remain unchanged	40	NO
HAPs (Individual)	9.0		9.0			
HAPs (Total)	24.0		24.0			

**Facility wide emissions include those from exempt propane fired steam generators.*

The facility is not an existing major stationary source with respect to PSD, because its potential emissions are less than 250 TPY of a regulated pollutant, and the facility is not on the list of 28 and does not emit 100 TPY of a regulated pollutant. The project's potential emissions increase is less than 250 TPY of a regulated pollutant. Based on these facts, the project is not subject to PSD preconstruction review.

3. APPLICATION REVIEW

Application Fee

AC/1E ($1,000 fee) – Emissions more than 5 tons per year but less than 25 tons per year.
AC/1F ($250 fee) – Emissions less than 5 tons per year.

Discussion of Emissions

The facility is a synthetic minor source, as potential emissions for VOC, single HAP and total HAPs are limited below major source threshold limits. The proposed construction project (addition of crusher, batch plant and generator) will result in an emissions increase for PM of 8.82 tons per year, an emissions increase for NOx of 6.57 tons per year, and a CO emissions increase of 1.28 tons per year.

State Requirements

This source is regulated under Rule 62 -296.414(1), F.A.C.

Federal NSPS Provisions

Portable Crusher
The unit is subject to New Source Performance Standards (NSPS), Subpart OOO—Standards of Performance for Nonmetallic Mineral Processing Plants. Details of the requirements are stated in the permit.

The portable unit will not be located at the Gretna facility for more than six consecutive months, based on an operation limitation in the air general permit for the unit. Therefore, the engine is a non-road engine as defined in 40 CFR §1068.30. 40 CFR 60 subpart IIII (CI) applies to stationary internal combustion engines that are not non-road engines.

If the engine brought on site with the Portable Concrete Crushing System (EU 006) remains on site for more than 12 consecutive months and was manufactured after April 1, 2006 or modified or reconstructed after July 11, 2005, it will be subject to the requirements of Title 40, Code of Federal Regulations (CFR) Part 60, Subpart IIII –

Standards of Performance for Stationary Compression Ignition Internal Combustion Engines. As long as the permittee operates and maintains the engine according to the manufacturer's instructions or procedures over the entire life of the engine and the manufacturer keeps their certification, the engine is not required by the federal rule to demonstrate compliance with emission limits.

Federal NESHAP Provisions

The portable unit will not be located at the Gretna facility for more than six consecutive months, based on an operation limitation in the air general permit for the unit. Therefore, the engine is a non-road engine (as defined in 40 CFR §1068.30) and 40 CFR Part 63subpart ZZZZ (RICE) applies to stationary internal combustion engines that are not non-road engines.

If the engine brought on site with the Portable Concrete Crushing System (EU 006) remains on site for more than 12 consecutive months, it is subject to Title 40, Code of Federal Regulations, Part 63, Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. An engine is considered existing if construction or reconstruction of the engine commenced before June 12, 2006. An engine is considered new if it was constructed or reconstructed on or after June 12, 2006. A new engine must comply with 40 CFR 60 subpart IIII. As of the effective date of this permit, the Federal rule pertaining to existing engines has not been adopted by the State of Florida.

Other Draft Permit Requirements

Initial tests on Concrete Batch Plant #2 and Crusher will require test results (if applicable) and recordkeeping.

4. PRELIMINARY DETERMINATION

The Department makes a preliminary determination that the proposed project will comply with all applicable state and federal air pollution regulations as conditioned by the draft permit. This determination is based on a technical review of the complete application, reasonable assurances provided by the applicant, and the conditions specified in the draft permit. Angelia Jackson is the project engineer responsible for reviewing the application and drafting the permit. Additional details of this analysis may be obtained by contacting the project engineer at 850/595-0598 or angelia.jackson@dep.state.fl.us.