# FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

NORTHEAST DISTRICT
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JACKSONVILLE, FLORIDA 32256

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SECRETARY


*Sent by Electronic Mail – Received Receipt Requested*

**PERMITTEE:**

Lehigh Hanson
840 West Avenue
Deland, Florida 32720

Air Permit No.: 1070043-005-AF
Issuance Date: April 30, 2014
Expiration Date: April 30, 2019

Authorized Representative:

Mr. Charles Piwowarski, Environmental Manager

Federally Enforceable State Operation Permit Renewal

This is the final Federally Enforceable State Operation Permit (FESOP) for Hanson Pressure Pipe, Inc. The existing Palatka Plant Facility is a pressure pipe production plant that includes a concrete batching operation and a pressure pipe forming and coating operation. (Standard Industrial Classification No. 3272).

The facility is located in Putnam County at 245 Comfort Road, Palatka, Florida. The UTM coordinates Zone 17, 436.53 km East and 3286.5 km North.

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.

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

Richard S. Rachal III, P.G. April 30, 2014
Program Administrator
Waste and Air Resource Management

## 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 **April 30, 2014**, to the persons listed below.

Mr. Charles Piwowarski, Environmental Manager, Lehigh Hanson: Charles.piwowarski@hanson.com
Mr. Steve Braxton, Plant Manager, Hanson Pressure Pipe, Inc.: steve.braxton@hanson.com
Ms. Natasha Hazziez, U.S. EPA Region 4: (hazziez.natasha@epa.gov)

Clerk Stamp
FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to Section 120.52(7), F.S., with the designated agency clerk, receipt of which is hereby acknowledged.

(Clerk) April 30, 2014
Date

## FACILITY AND PROJECT DESCRIPTION

The Hanson Pressure Pipe, Inc., Palatka Plant Facility operates a pressure pipe production plant that includes a concrete batching operation and a pressure pipe forming and coating operation. The concrete batching operation consists of five concrete batching plants which consist of a total of four cement bins, one cement storage silo, four weigh hoppers, five concrete mixers, four sand bins and two aggregate bins.

The concrete batching plant includes the equipment associated with preparing batches of concrete. Fine and coarse aggregate materials are delivered via trucks and emptied in to separate storage piles. Aggregate storage piles are watered constantly to help suppress particulate material. A front end loader transfers aggregate material from the storage piles onto the conveyance system. The conveyance system then transfers the material into storage bins. Cement and fly ash are also delivered to the facility via trucks and pneumatically transferred into the cement bins and storage silo.

Aggregate materials cement and fly ash are fed to the weigh hopper via screw conveyer. The aggregates, cement and fly ash are conveyed from the weigh hopper to the concrete mixer where water is added.

Particulate matter (PM) emissions generated during the pneumatic loading of cement into the cement silo and the cement bins are each controlled by a Griffin Environmental Model 36-LS dust collector. PM emissions from the four weigh hoppers are each controlled by an expandable (closed loop design).air displacement bag.

The pressure pipe forming and coating operation consists of several processes including the formation of steel cylinders by a welding process to produce vertical and horizontal pressure pipes. The pressure pipes are sand blasted and subsequently coated with paint.

During vertical pipe production, a steel cylinder is placed on a circular core and the interior and exterior are cast in concrete (EU002), then cured in kilns. After this initial curing, the concrete core is helically wound with high tensile strength steel wire followed by the application of a dense cement mortar coating by high velocity impaction (EU001) and cured for a second time. Once the second curing is completed, the pipes are coated with paint (EU006). The paint is applied by brush, roller, or sprayed.

During horizontal pipe production, the interior of the steel cylinder is centrifugally coated with concrete or mortar (EU003) and then cured in kilns. After this initial curing, the core is helically wound with either pre-stressed wire or steel bar. A dense mortar is then applied by high velocity impaction (EU004). The completed pipe is then cured a second time followed by a coating with paint (EU006).

During fitting production (EU005) steel cylinders are hand coated with concrete or mortar, then cured in kilns. Once hardened, the cylinders are coated with paint (EU006) and transferred to trucks.

Form oil, a VOC-containing chemical, is used during the pipe forming process. The concrete forms and cores are coated with form oil to ease in the removal of concrete structures from the forms.

VOC and HAP emissions are generated from the coating, paint and form oil materials used in the pressure pipe coating and forming operations at the facility. Compliance with the facility wide VOC/HAP emissions shall be accomplished through record keeping.

The facility also consists of the following operations that are exempt from air permitting:

The Sand blasting operation which is exempt per Rule 62-210.300(3)(b)1., F.A.C.

The Curing operation consists of five natural gas Kilns. Four with a maximum heat input of 2.5MMbtu/hr and one with a maximum heat input of 3.5MMbtu/hr. These units are exempt from permitting per Rule 62-210.300(3)(a)34., F.A.C.

The Welding operation which is exempt per Rule 62-210.300(3)(a)13., F.A.C

*Although not considered to be a significant source of air emissions, the sand blasting, curing, and welding operations are subject to the applicable General Visible Emissions limiting standard as specified by Appendix C, Condition 8 of this permit.*

This project is for the renewal of the Federally Enforceable State Operation Permit (FESOP) 1070043-004-AF.

**Existing Facility**

The facility consists of the following permitted emissions unit and emissions points.

Facility ID No. 1070043

| Eu ID No. | Emission Unit Description |
|---|---|
| 001 | Vertical Coating Batch Plant Griffin Environmental Model 36-LS dust collector<br><br>Emission Point ID — Description<br>01 — Cement Bin with dust collector<br>02 — Weigh hopper<br>03 — Mixer<br>04 — Sand Bin |
| 002 | Pouring Batch Plant Griffin Environmental Model 36-LS dust collector<br><br>Emission Point ID — Description<br>01 — Cement Bin with dust collector<br>02 — Weigh hopper<br>03 — Mixer<br>04 — Aggregate Bin<br>05 — Sand Bin |
| 003 | Spinning Batch Plant Griffin Environmental Model 36-LS dust collector<br><br>Emission Point ID — Description<br>01 — Cement Bin with dust collector |

| | |
|---|---|
| | 02 Weigh hopper<br>03 Mixer<br>04 Aggregate Bin<br>05 Sand Bin |
| 004 | Horizontal Coating Batch Plant Griffin Environmental Model 36-LS dust collector<br><br>Emission Point ID — Description<br>01 Cement Bin with dust collector<br>02 Weigh hopper<br>03 Mixer<br>04 Sand Bin |
| 005 | Fitting Silo/Mixer Griffin Environmental Model 36-LS dust collector<br><br>Emission Point ID — Description<br>01 Cement bin with dust collector<br>02 ¼ Yard Mixer<br>03 Sand Transfer<br>04 Sand Bin |
| 006 | Pipe Coating Operation |

## FACILITY REGULATORY CLASSIFICATION

This facility is classified as a synthetic non-Title V source due to a federally enforceable limit established for the air pollutant emissions rates.

- 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 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(PSD), F.A.C.

## RELEVANT DOCUMENTS

The documents listed below are the basis of the permit. They are specifically related to this permitting action. These documents are on file with the Department.

Application for Air Permit received April 29, 2014

## SECTION 2. ADMINSITRATIVE REQUIREMENTS

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

2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the North East District Office. The mailing address and phone number of the District Office is: 8800 Baymeadows Way West, Suite 100, Jacksonville, Florida 32256. The Permitting Authority's telephone number is 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; and
   d. Appendix D. Common Testing Requirements.

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 owner or operator from compliance with any applicable federal, state, or local permitting or regulations.

   [Rule 62-210.300, F.A.C.]

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 owner or operator 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. A completed **Application for Non Title V Air Permit Renewal** [DEP Form No. 62-210.900(4)] shall be submitted to the Department at least 60 days prior to the expiration date of this operation permit. To properly apply for an operation permit, the owner or operator shall submit the appropriate application form, processing fee, and compliance test reports as required by this permit.

   [Rules 62-4.050, 62-4.090, F.A.C.]

**This section of the permit addresses the following emissions units (including Emission Points):**

| EU ID No. | Emission Unit Description |
|---|---|
| 001 | Vertical Batch Plant Griffin Environmental Model 36-LS dust collector |
| 002 | Pouring Batch Plant Griffin Environmental Model 36-LS dust collector |
| 003 | Spinning Batch Plant Griffin Environmental Model 36-LS dust collector |
| 004 | Horizontal Coating Batch Plant Griffin Environmental Model 36-LS dust collector |
| 005 | Fitting Silo/Mixer Griffin Environmental Model 36-LS dust collector |

## PERFORMANCE RESTRICTIONS

**A.1.** Hours of Operation: The hours of operation at each emissions unit are not limited (8,760 hours per year).

[Rules 62-4.160(2) and Rule 62-210.200(PTE), F.A.C., Definitions- Potential to Emit (PTE)]

**A.2.** Air Displacement Expandable Dust Bags: The close loop design dust bags shall be installed at the weigh hoppers for particulate matter control and shall remain in place at all times during operation of the concrete batch plants.

[Rule 62-4.070(3) and Rule 62-296.414(1), F.A.C.]

## EMISSIONS STANDARDS

**A.3.** Stack Emissions: Emissions from silos, weigh hoppers (batchers), and other enclosed storage and conveying equipment shall be controlled to the extent necessary to limit visible emissions to 5 percent opacity.

[Rule 62-296.414(1), F.A.C.]

**A.4.** Unconfined Emissions: The owner or operator shall take reasonable precautions to control unconfined emissions from hoppers, storage and conveying equipment, conveyor drop points, truck loading and unloading, roads, parking areas, stock piles, and yards as required by Rule 62-296.320(4)(c), F.A.C. For concrete batching plants the following shall constitute reasonable precautions:

(a) Management of roads, parking areas, stock piles, and yards, which shall include one or more of the following:

1. Paving and maintenance of roads, parking areas, and yards.
2. Application of water or environmentally safe dust-suppressant chemicals when necessary to control emissions.
3. Removal of particulate matter from roads and other paved areas under control of the owner or operator to mitigate reentrainment, and from building or work areas to reduce airborne particulate matter.
4. Reduction of stockpile height or installation of wind breaks to mitigate wind entrainment of particulate matter from stockpiles.

(b) Use of spray bar, chute, or partial enclosure to mitigate emissions at the drop point to the truck.

[Rule 62-296.414 (2), F.A.C.]

**TESTING REQUIREMENTS**

**A.5.** Annual Visible Emissions Test: A visible emissions test shall be performed at each of the following emission points on an annual basis in order to demonstrate compliance with the opacity limit as specified in Specific Condition No. A.3 for the concrete batching operations. The test method shall be EPA Method 9 as specified in Appendix A, of 40 CFR 60 and adopted by reference in Rule 62-204.800, F.A.C. No other method shall be used.

| EU ID | E pt. |
|---|---|
| 001, Vertical coating batch plant | 01 cement bin w/ dust collector |
| 002, Pouring batch plant | 01 cement bin w/ dust collector |
| 003, Spinning batch plant | 01 cement bin w/ dust collector |
| 004, Horizontal coating batch plant | 01 cement bin w/ dust collector |
| 005, Fitting silo/mixer | 01 cement bin w/ dust collector |

[Rule 62-296.414 (3)(a), F.A.C.; Rule 62-296.414 (4)(b)., F.A.C.]

**A.6.** Silo/Cement Bin Loading During VE Testing: Visible emissions tests of silo dust collector exhaust points shall be conducted while loading the silo at a rate that is representative of the normal silo loading rate. The minimum loading rate shall be 25 tons per hour unless such rate is unachievable in practice. Each test report shall state the actual silo loading rate during emissions testing and, if applicable, whether or not batching occurred during emissions testing.

[Rule 62-296.414(3)(c) F.A.C.]

**A.7.** Test Notification: The permittee shall notify the air compliance section of this office in writing at least 15 days prior to any required tests. Tests shall be conducted in accordance with the applicable requirements specified in Appendix D (Common Testing Requirements) of this permit.

[Rule 62-297.310(7)(a)9., F.A.C.]

**A.8.** Standard Testing Requirements: All required emissions test(s) shall be conducted in accordance with the applicable requirements specified in Appendix D (Common Testing Requirements) of this permit.

[Rule 62-296.414(3)(b),F.A.C.]

**REPORTING AND RECORDKEEPING REQUIREMENTS**

**A.9.** Test Report Submittal: Test result reports shall be prepared and submitted in accordance with the requirements specified in Appendix D (Common Testing Requirements) of this permit. Reports of the required compliance tests shall be filed with the air compliance section of this office as soon as practical but no later than 45 days after the last test is completed.

[Rule 62-297.310(8)(b), and Rule 62-296.414(3)(b) F.A.C. ]

**A.10.** Dust Collector/Expandable Dust Bag Malfunction/Maintenance Record: The owner or operator shall maintain the malfunction and maintenance records of the dust collectors and expandable dust bags. The record(s) shall be kept on site for at least 3 years, and shall include the following information but not limited to:

a. Date and type of malfunctions occurred.
b. Duration of the malfunction and correction action taken.
c. Maintenance conducted on the dust collectors and expandable air displacement bags.

[Rule 62-4.070(3), and 62-4.160, F.A.C.]

**This section of the permit addresses the Facility Wide Emissions Caps.**

## EMISSIONS STANDARDS

**B.1.** Volatile Organic Compounds (VOC), Total HAPs and Individual HAP Emissions Caps: The maximum facility wide VOC emissions rate is limited to no more than 99.0 tons per consecutive 12 months. The maximum facility wide total Hazardous Air Pollutants (HAPs) emissions rate is limited to no more than 24.0 tons per consecutive 12 months and each individual HAP is limited to no more than 9.0 tons per consecutive 12 months.

[Rule 62-210.200(203), (PTE), Rule 62-210.300 (2)(b), F.A.C.]

## WORK PRACTICE STANDARDS

**B.2.** Volatile Organic Compounds or Organic Solvents: No person shall store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds (VOCs) or organic solvents without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department.

Precautions at this facility should include, but are not limited the following to minimize VOC emissions:

a) Tightly cover or close all VOC containers when they are not in use,
b) Tightly cover, where possible, all open troughs, basins, baths, tanks, etc. when they are not in use,
c) Maintain all piping, valves, fittings, etc. in good operating condition,
d) Prevent excessive air turbulence across exposed VOCs,
e) Immediately confine and clean up VOC spills and make sure certain wastes are placed in closed containers for reuse, recycling or proper disposal

[Rule 62-296.320(1), F.A.C.; Permit No. 1070043-004-AF]

## RECORDS AND REPORTS

**B.3.** Record Keeping: In order to demonstrate compliance with the facility wide emissions limitations as specified by Specific Condition No. B.1 of this section, and pursuant to Rule 62-4.070(3), F.A.C., the Permittee shall maintain a monthly log at the facility for each material that contains VOC and HAPs for a period of at least five years from the date the data is recorded. The log, at a minimum, shall contain the following:

Monthly

a) Designation of the month and year of operation for which the records are being tabulated; and
b) Consecutive 12-month total VOC, Total HAPs and individual HAP emissions rate.
c) Documents or supporting justifications for VOC, Total HAPs and individual HAP emissions calculation including, but not limited to:

   i. Material Safety Data Sheet (MSDS) or material specification sheet.
   ii. Purchase receipt of the VOC containing materials or other supporting documents indicating the materials usage.

The Permittee shall use Mass Balance Calculations as Specified in Appendix C (Common Conditions) of this permit in order to determine the VOC, individual HAP, and total HAPs emitted at the facility. The monthly VOC/HAP, Total HAPs and VOC emissions shall be added to the total emissions rate from the previous 11 months to obtain the emissions rate in 12 consecutive months.

[Rules 62-4.070(3), and 62-210.370(2)(c)(3)., F.A.C.]

**B.4.** Annual Operating Report: The Permittee shall complete and submit the Annual Operating Report for Air Pollutant Emitting Facility (DEP Form No. 62-210.900(5)) each year to the NED air program office by April 1 of the following year. Emissions shall be computed in accordance with Specific Condition B.3.

If the report is submitted using the Department's electronic annual operating report software, there is no requirement to submit a copy to the NED local air program office.

[Rule 62-210.370(3)(a)2., and (c), F. A.C.]