



# Florida Department of Environmental Protection

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Rick Scott  
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Secretary

## PERMITTEE

Tarmac America, LLC  
455 Fairway Drive, Suite 200  
Deerfield Beach, FL 33441

Authorized Representative:  
Al Townsend, Director of Alternative Fuels

Air Permit No. 0250020-031-AC  
Permit Expires: November 1, 2014  
Minor Air Construction Permit

Pennsuco Cement Plant  
Alternative Solid Fuels

## PROJECT

This is the final air construction permit, which authorizes: the construction of mechanical and pneumatic solid fuel handling and feed systems for the precalciner and main kiln burner; installation of a new multi-fuel main kiln burner system; and the firing of a variety of alternative solid fuels including combinations of plastics, tire-derived fuel, reject roofing shingles, clean cellulosic biomass, manufactured cellulosic biomass, agricultural fibrous organic byproducts, pre-consumer reject paper, carpet-derived fuel and engineered fuels. The proposed work will be conducted at the existing Pennsuco Cement plant, which is categorized under Standard Industrial Classification Code No. 3241. The existing Pennsuco Cement Plant is located in Miami-Dade County at 11000 NW 121 Way in Medley, Florida. The UTM coordinates Zone 17, 562.3 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); 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 the Division of Air Resource Management

Jeffery F. Koerner, P.E., Program Administrator  
Office of Permitting and Compliance  
Division of Air Resource Management

8-8-11  
(Date)

**FINAL PERMIT**

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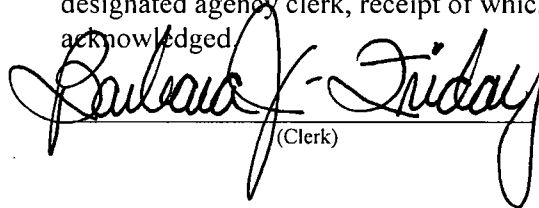
**CERTIFICATE OF SERVICE**

The undersigned duly designated deputy agency clerk hereby certifies that this Final Air Permit package (including the Final Determination and Final Permit with Appendices) 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 8-8-11 to the persons listed below.

- Mr. Al Townsend, Tarmac America, LLC (atownsend@titanamerica.com)
- Mr. Max Lee, Ph.D., P.E., Koogler and Associates, Inc. (mlee@kooglerassociates.com)
- Mr. Kyle Ulmer, Koogler and Associates, Inc. (kulmer@kooglerassociates.com)
- Mr. Matt Tribby, Koogler and Associates, Inc. (mtribby@kooglerassociates.com)
- Mr. Lennon Anderson, DEP SED (lennon.anderson@dep.state.fl.us)
- Ms. Mallika Muthiah, DERM (muthim@miamidade.gov)
- Ms. Kathleen Forney, EPA Region 4 (forney.kathleen@epa.gov)
- Ms. Heather Abrams, EPA Region 4 (abrams.heather@epa.gov)
- Ms. Ana M. Oquendo, EPA Region 4 (oquendo.ana@epa.gov)
- Mr. David Langston, EPA Region 4 (langston.david@epa.gov)
- Ms. Lynn Searce, DEP OPC Reading File (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.

  
(Clerk)

8-8-11  
(Date)

## SECTION 1. GENERAL INFORMATION

### FACILITY DESCRIPTION

This project will affect the following existing permitted emissions unit.

| Facility ID No. 0250020 |  |
|-------------------------|--|
| ID No.                  | Emission Unit Description  |
| 028                     | Pyro-processing/Raw Mill System with new equipment:<br>Replacement main kiln burner<br>Mechanical Feed System for Alternative Solid Fuels<br>Pneumatic Feed System for Alternative Solid Fuels |
| 037                     | Grinding and Screening Operations for Alternative Solid Fuels (Re-processing)  |

A baghouse controls particulate matter (PM) emissions from the preheater/precalciner kiln exhaust as well as exhausts from the clinker cooler, raw mill and coal mill. Emissions of carbon monoxide (CO), nitrogen oxides (NO<sub>x</sub>) and volatile organic compounds (VOC) are controlled by the efficient combustion design (long residence times at high temperatures) of the FLSmith preheater/precalciner kiln and good operating practices. Potential dioxin and furan emissions are controlled by the high-temperature combustion followed by rapid cooling. Acid gases such as sulfur dioxide (SO<sub>2</sub>) and hydrochloric acid (HCl) are controlled by limestone scrubbing as part of the raw material feed and clinker production. To demonstrate compliance with the emission limits specified in the permit, continuous emission monitoring systems (CEMS) in the main kiln/raw mill stack measure and record emissions of CO, NO<sub>x</sub>, SO<sub>2</sub>, total hydrocarbons or "THC" (which serves as a surrogate for VOC emissions). A continuous opacity monitoring system (COMS) measure and record the opacity of the flue gas exhaust in the main kiln/raw mill stack. The baghouse inlet temperature is continuously monitored and recorded to ensure that it is maintained below that of the most recent compliance stack test, which provides assurance of effective control of dioxins and furans.

### FACILITY REGULATORY CLASSIFICATION

- The facility is a major source of hazardous air pollutants (HAP).
- 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.

### PROJECT DESCRIPTION

This permit authorizes: the construction of mechanical and pneumatic solid fuel handling and feed systems for the precalciner and main kiln burner; installation of a new multi-fuel main kiln burner system; and the firing of a variety of alternative solid fuels including combinations of plastics, tire-derived fuel, reject roofing shingles, clean cellulosic biomass, manufactured cellulosic biomass, agricultural fibrous organic byproducts, pre-consumer reject paper, carpet-derived fuel and engineered fuels.

## SECTION 2. ADMINISTRATIVE REQUIREMENTS (DRAFT)

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1. Permitting Authority: The permitting authority for this project is the Office of Permitting and Compliance, Division of Air Resource Management, Florida Department of Environmental Protection (Department). The mailing address is 2600 Blair Stone Road (MS #5505), Tallahassee, Florida 32399-2400. All documents related to applications for permits to operate an emissions unit shall be submitted to the Air Resource Section of the Miami-Dade County Department of Environmental Resource Management at 701 NW 1<sup>st</sup> Court, Suite 400, Miami, Florida 33136.
2. Compliance Authority: All documents related to compliance activities such as reports, tests and notifications shall be submitted to the Air Resource Section of the Miami-Dade County Department of Environmental Resource Management at 701 NW 1<sup>st</sup> 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); and 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 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. A permittee may request that a permit be extended as a modification of the permit. Such a request must be submitted in writing before the expiration of the permit. Upon timely submittal of a request for extension, the permit will remain in effect until final agency action is taken on the request. For construction permits, an extension shall be granted if the applicant can demonstrate reasonable assurances that, upon completion, the extended permit will comply with the standards and conditions required by applicable regulation. [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.]

## SECTION 2. ADMINISTRATIVE REQUIREMENTS (DRAFT)

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8. Application for Title V Permit: This permit authorizes construction of mechanical and pneumatic fuel handling and feed systems for the precalciner and main kiln burner; installation of a new multi-fuel main kiln burner system; use of alternative fuels; 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. Based on the preliminary schedule, the project will likely be completed in three sequential stages: the bucket elevator precalciner feed system followed by the pneumatic injection precalciner feed system followed by replacement of the main kiln burner system. Except as otherwise specified in this condition, 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 of the first installed feed system and completion of the first initial ASF assessment. If less than 180 days will elapse between the initial ASF assessments on the first feed system and installation of the second feed system, the permittee shall apply for a revised Title V air operation permit no later than 180 days after completing installation of the second feed system. The Title V permit will incorporate the requirements authorizing ASF use and future subsequent assessments with the installed equipment. 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, 62-4.220 and Chapter 62-213.420, F.A.C.]
9. Actual Emissions Reporting: This permit is based on an analysis that compared baseline actual emissions with projected actual emissions and avoided the requirements of subsection 62-212.400(4) through (12), F.A.C. for several pollutants. Therefore, pursuant to Rule 62-212.300(1)(e), F.A.C., the permittee is subject to the following monitoring, reporting and recordkeeping provisions.
- a. The permittee shall monitor the emissions of any PSD pollutant that the Department identifies could increase as a result of the construction or modification and that is emitted by any emissions unit that could be affected; and, using the most reliable information available, calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of 5 years following resumption of regular operations after the change. Emissions shall be computed in accordance with the provisions in Rule 62-210.370, F.A.C., which are provided in Appendix C of this permit.
  - b. The permittee shall report to the Department within 60 days after the end of each calendar year during the 5-year period setting out the unit's annual emissions during the calendar year that preceded submission of the report. The report shall contain the following:
    - 1) The name, address and telephone number of the owner or operator of the major stationary source;
    - 2) The annual emissions calculations pursuant to the provisions of 62-210.370, F.A.C., which are provided in Appendix C of this permit;
    - 3) If the emissions differ from the preconstruction projection, an explanation as to why there is a difference; and
    - 4) Any other information that the owner or operator wishes to include in the report.
  - c. The information required to be documented and maintained pursuant to subparagraphs 62-212.300(1)(e)1 and 2, F.A.C., shall be submitted to the Department, which shall make it available for review to the general public.

For this project, the permit requires the annual reporting of actual emissions for the following pollutants: carbon monoxide (CO), nitrogen oxides (NO<sub>x</sub>), particulate matter (PM), sulfur dioxide (SO<sub>2</sub>), volatile organic compounds (VOC), mercury (Hg) and lead (Pb).

The affected emissions units are: pyro-processing/raw mill system (EU-028), the mechanical feed system, the pneumatic feed system, associated grinding and screening operations (EU-037), fugitives and combustion byproducts from related engines) and fugitive dust (EU-031) associated with additional truck traffic as well as the unloading, loading and handling of the alternative solid fuels.

## SECTION 2. ADMINISTRATIVE REQUIREMENTS (DRAFT)

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Once construction is finished on a fuel feed system or the main kiln burner, the first report is due within 60 days of completing the first full year of operation with the equipment in place. Note that if installation of the equipment is staggered to multiple years then, correspondingly, more than five reports may be required.

As specified in Condition 20 of this permit, the CO, NOx and THC emissions data collected during the authorized shakedown/ASF assessment periods may be excluded from the comparison of actual to baseline emissions. Excluded data shall be replaced with data estimated from: the actual clinker production rate; and an emissions factor based on the average emission rates from the rest of the year (i.e., all periods except the shakedown and/or assessment periods). The permittee shall report all of the original information as actual emissions, but may deduct emissions data collected during the equipment shakedown and assessment periods while developing good operating practices.

[Application 0250020-031-AC; and Rules 62-212.300(1)(e) and 62-210.370, F.A.C.]

**SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS (DRAFT)**

**A. Pyro-processing Kiln and ASF Feed Systems**

This section of the permit addresses the following emissions units.

| <b>ID No.</b> | <b>Emission Unit Description</b>   |
|---------------|--|
| 028           | Pyro-processing/Raw Mill System with new equipment:<br>Replacement main kiln burner<br>Mechanical Feed System for Alternative Solid Fuels<br>Pneumatic Feed System for Alternative Solid Fuels |
| 037           | Grinding and Screening Operations for Alternative Solid Fuels (Re-processing)  |

**COMPLIANCE WITH EXISTING PERMIT CONDITIONS**

1. Existing Permits: This permit supplements all existing valid air permits. Unless otherwise specified, the permittee shall continue to comply with all applicable conditions from valid air construction and operation permits. [Rule 62-4.070(3), F.A.C.]

**EQUIPMENT**

2. New Equipment: The permittee is authorized to construct and operate the following permanent equipment for firing alternative solid fuels (ASF) in the upper precalciner section of the pyro-processing kiln system.
  - a. *Mechanical and Pneumatic Precalciner Handling and Feed Systems*. Each feed system shall be designed to handle solid fuels with multiple points of injection to accommodate ASF particle size, density and heating value. The nominal feed rate of each feed system is 15 tons of ASF per hour.
    - (1) The mechanical feed system shall consist of a bucket elevator system (or equivalent), a mechanical feeder, a weigh-belt, a load hopper, conveyors, storage bins and other associated equipment.
    - (2) The pneumatic feed system shall consist of a system of fans (as necessary) and ductwork, a mechanical feeder, a weigh-belt, a load hopper, conveyors, storage bins and other associated equipment.

To the extent practicable, components of the precalciner feed systems shall be substantially enclosed or covered to prevent the loss of and fugitive dust emissions. Each feed system shall be integrated into the existing kiln data system to provide real time data on the ASF feed rates to the kiln system operators. The ASF feed rate shall be recorded along with the other fuel feed rates. *{Permitting Note: For reference, the maximum design heat input rate of the precalciner burner is 385 MMBtu/hour.}*

- b. *Main Kiln Burner System*. The permittee is authorized to replace the main kiln burner system with a multi-fuel burner and related feed equipment specifically designed for co-firing ASF with coal and other authorized fuels. The maximum design heat input rate for the main kiln burner is 290 MMBtu/hour. The permittee shall submit details of the final main kiln burner design once it is complete (fuel types, design heat input rates and schematics).
    - c. *Grinding and Sizing Equipment*. As an option, the permittee is authorized to install grinding, shredding, screening and sizing equipment to re-process the ASF on site if necessary. This equipment will be powered by electric motors or diesel engines. In addition, the diesel engines shall comply with any applicable NSPS or NESHAP.

[Design, Application No. 0250020-031-AC and Rule 62-4.070(3), F.A.C.]

**AUTHORIZED FUELS**

3. Traditional Fuels: The permittee is authorized to fire the following fossil fuels: coal, petroleum coke,

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### SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS (DRAFT)

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#### A. Pyro-processing Kiln and ASF Feed Systems

natural gas, No. 2 fuel oil, No. 6 fuel oil and on-specification used oil. The permittee is also currently authorized to fire whole tires in the precalciner. *{Permitting Note: This condition clarifies that the pyro-processing kiln is not limited to firing only "bituminous" coal and is capable of firing other coals.}* [Project Nos. 0250020-017-AC and 0250020-027-AC]

4. **ASF:** Subject to the ASF Acceptance Criteria, the permittee is authorized to co-fire authorized fuels with any of the following ASF.
  - a. *Plastics*, which includes materials such as polyethylene plastic used in agricultural and silvicultural operations. This may include incidental amounts of chlorinated plastics.
  - b. *Tire-Derived Fuel (TDF)*, which includes shredded used tires with steel belt material, shredded used tires without steel belt material and tire fluff.
  - c. *Manufacturer Reject Roofing Shingles*, which consists of manufacturer reject roofing shingles that were never installed with the bulk of the incombustible grit material removed and which the manufacturer certifies as being made without asbestos.
  - d. *Clean Cellulosic Biomass*, which includes materials such as clean untreated lumber, tree stumps, tree limbs, slash, bark, sawdust, sander dust, wood chips scraps, wood scraps, wood slabs, wood millings, wood shavings and processed pellets made from wood or other forest residues.
  - e. *Manufactured Cellulosic Biomass*, which includes materials such as preservative-treated wood that may contain treatments such as creosote, copper-chromium-arsenic (CCA), or ammoniacal copper quaternary (AQC), painted wood, or resinated woods (plywood, particle board, medium density fiberboard, oriented strand board, laminated beams, finger-jointed trim and other sheet goods). The permittee shall not fire more than 500 lb/hour averaged on a 7-day block average basis of segregated streams of wood treated with copper-chromium-arsenic (CCA) compounds. *{Permitting Note: To the extent practicable, operators plan to introduce CCA-treated wood at low rates and co-fire with other ASF. The majority of copper, chromium and arsenic compounds are expected to be integrated into the cement clinker product.}*
  - f. *Agricultural Organic Fibrous Byproducts*, which includes materials such as peanut hulls, rice hulls, corn husks, citrus peels, cotton gin byproducts, animal bedding and other similar types of materials with a suitable heating value.
  - g. *Pre-Consumer Paper*, which includes materials such as printing and writing paper; household and sanitary paper; wrapping and packaging paper; paper board; chipboard; Kraft liner, writing and packaging paper; fluting; other wrapping and packaging paper; folding boxboard; other paperboard; polymer laminated wrapping paper; game boards and boxes; foil wrapping paper; thermal papers; specialty papers for filtration or hygienic applications; adhesive labels; waxed corrugated cardboard; other miscellaneous coated papers; fabrics and textiles such as dyed/finished natural fibers; dyed/finished natural fiber woven/scrap trim; polymer fiber woven scrap trim; and un-dyed/unfinished natural or synthetic fiber scrap trim.
  - h. *Carpet-Derived Fuel*, which includes shredded new, reject or used carpet with incidental related materials (e.g., tack-down strips, nails, etc.).
  - i. *Engineered Fuel*, which is a composition of carefully blended ASF and other non-hazardous byproducts and materials specifically designed for use as a fuel.
  - j. *ASF Mix*, which includes a blend of any of the above mixed at the plant.

[Application No. 0250020-031-AC and Rule 62-210.200(PTE), F.A.C.]



**SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS (DRAFT)**

**A. Pyro-processing Kiln and ASF Feed Systems**

5. **ASF Acceptance Criteria:** The permittee shall only accept and fire ASF that meets the following criteria.
- a. *Prohibited Materials:* The permittee is prohibited from firing the following materials in the pyro-processing system: hazardous waste, nuclear waste and radioactive waste. The permittee shall not knowingly fire biomedical waste, asbestos-containing waste, whole batteries, explosive materials and unsorted municipal garbage. These prohibited materials shall not be used to manufacture engineered fuels.
  - b. *Acceptance Criteria:* To be accepted as an authorized fuel, ASF delivered to the site shall have a lower heating value greater than 3500 Btu/lb. If a shipment does not meet the Acceptance Criteria, the permittee shall reject the shipment. The Acceptance Criteria is based on the analytical results of the ASF supplier or by the permittee. *{Permitting Note: For internal plant needs, the permittee may establish other acceptance criteria such as particle sizing.}* [Application No. 0250020-031-AC and Rule 62-4.070(3), F.A.C.]
6. **ASF Target Levels:** Targets levels are the desired ASF properties for as-fired fuel in the system. Target Levels are not enforceable and do not apply to individual raw materials or fuels.

| Parameter           | Target Levels*     |
|---------------------|--------------------|
| Lower Heating Value | > 5000 Btu/lb      |
| Moisture            | < 30% by weight    |
| Ash                 | < 25% by weight    |
| Sulfur              | < 4.0% by weight   |
| Chlorine            | < 0.50% by weight  |
| Chromium            | < 100 ppmw (mg/kg) |
| Lead                | < 50 ppmw (mg/kg)  |
| Mercury             | < 0.3 ppmw (mg/kg) |

\* All concentrations are dry basis.

[Application No. 0250020-031-AC and Rule 62-4.070(3), F.A.C.]

*{Permitting Note: Kiln operators will review operations and make potential adjustments, as necessary, to accommodate ASF used in the kiln. The kiln operators will help ensure production of high-quality cement clinker.}*

7. **Receiving ASF:** For ASF received at the plant, the permittee shall comply with the following requirements.
- a. The permittee shall reject any shipment that does not meet the Acceptance Criteria.
  - b. All ASF received at the plant shall be in covered trucks and/or enclosed containers. When unloading and handling ASF, the permittee shall take reasonable precautions shall be taken to prevent fugitive dust emissions. The permittee shall also visually check the delivered ASF for particle size and components.
  - c. The permittee shall record the amount and type of each ASF received.
  - d. **Fuel Analyses Parameters:** The following information shall be included when reporting the analytical results for an ASF: lower heating value (Btu/lb) of ASF; moisture, ash, volatiles, fixed carbon, sulfur and chlorine content (percent by weight); and chromium, lead and mercury contents (ppmw). All concentrations are on a dry basis. Reject roofing shingles shall include a certification from the

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### SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS (DRAFT)

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#### A. Pyro-processing Kiln and ASF Feed Systems

manufacturer to be made without asbestos.

e. Sampling/Analysis Frequency:

- (1) *Tire-Derived Fuel*: No sampling/analysis is required since the typical analytical results for this manufactured product are well known.
- (2) *Plastics, Reject Roofing Shingles, Agricultural Organic Fibrous Byproducts, Pre-Consumer Paper and Carpet-Derived Fuel*: The permittee shall obtain the analytical results for a representative sample of ASF collected during each ASF assessment. In addition, the permittee shall obtain the analytical results for one representative sample of ASF during each subsequent calendar year that an ASF is fired.
- (3) *Clean Cellulosic Biomass, Manufactured Cellulosic Biomass and Engineered Fuel*: The permittee shall obtain the analytical results for two representative samples of ASF collected during each ASF assessment (at least 15 days apart). For every subsequent 10,000 tons of each ASF received on site, the permittee shall obtain the analytical results for a representative sample of the ASF.
- (4) *ASF Mix*: No sampling/analysis is required since analytical results will be available for the individual ASF.

[Application No. 0250020-031-AC; Rules 62-4.070(3) and 62-296.320, F.A.C.]

8. Storing and Handling ASF: The ASF shall be stored:

- a. Under cover or in covered trailers or containers;
- b. On top of a paved or compacted clay surface;
- c. Separately from other ASF unless purposely being mixed for firing;
- d. To promote containment and prevent contamination of air, water and soil; and
- e. Storage design should be appropriate to maintain the quality of the materials (e.g., first in, first out).

*{Permitting Note: Fire suppression systems and planning (e.g., pile dimensions, buffers, water sprinkler systems, CO<sub>2</sub> blanketing, etc.) will be conducted as required by local Fire Department requirements.}*

[Application No. 0250020-031-AC; Rules 62-4.070(3) and 62-296.320, F.A.C.]

#### EQUIPMENT SHAKEDOWN AND ASF ASSESSMENTS

9. Shakedown of Main Kiln Burner System and ASF Assessments: The permittee shall comply with the emissions standards and terms of all valid air permits during shakedown of the main kiln burner and ASF assessments.

- a. *Burner System Shakedown with Fossil Fuel*: After replacing the main kiln burner and related injection equipment, the permittee is authorized 30 operational days for shakedown of this new equipment to ensure proper installation and operation when firing fossil fuel.
- b. *Initial ASF Assessment*: After completing the shakedown of the main kiln burner system on fossil fuel, the permittee is authorized 90 operational days to introduce the initial ASF (i.e., the first assessed material of the listed materials in Specific Condition 4) ASF co-fired with fossil fuel and to develop good operating practices for the ASF resulting in steady kiln system operation.
- c. *Subsequent ASF Assessments*: For subsequent ASF assessments at the main kiln burner, the permittee is authorized 60 operational days to introduce a new ASF co-fired with fossil fuel and to develop good operating practices for the ASF resulting in steady kiln system operation.

## SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS (DRAFT)

### A. Pyro-processing Kiln and ASF Feed Systems

The Division of Air Resource Management may approve a written request by the permittee for an additional shakedown and assessment periods due to specific extenuating circumstances. [Application No. 0250020-031-AC and Rule 62-4.070(3), F.A.C.]

10. Shakedown of Precalciner Fuel Feeding and Handling Equipment and ASF Assessments: The permittee shall comply with the emissions standards and terms of all valid air permits during shakedown of the precalciner fuel feeding and handling equipment and ASF assessments.
- Equipment Shakedown with Initial ASF Assessment*: After completing construction of a feed/handling system, the permittee is authorized 90 operational days to introduce the initial ASF for that feed/handling system for shakedown of this new equipment to ensure proper installation as well as develop good operating practices for the ASF resulting in steady kiln system operation.
  - Subsequent ASF Assessments*: For subsequent ASF assessments, the permittee is authorized 60 operational days to introduce a new ASF to develop good operating practices for the ASF resulting in steady kiln system operation.
  - During each ASF assessment, the permittee shall measure and record the representative temperature at each mechanical or pneumatic feed injection point.

The Division of Air Resource Management may approve a written request by the permittee for an additional shakedown and assessment period due to specific extenuating circumstances. [Application No. 0250020-031-AC and Rule 62-4.070(3), F.A.C.]

11. Sampling/Analysis by Permittee: For each ASF assessment, the permittee shall obtain analytical results of the ASF as required in Condition 7. [Rule 62-4.070(3), F.A.C.]

### PERFORMANCE REQUIREMENTS

12. Operation: Alternative solid fuels shall only be fired once the kiln has achieved steady operation, temperatures and production (i.e., when raw materials are introduced). [Rule 62-4.070(3), F.A.C.]
- Depending on the ASF to be fired, the operator shall carefully select the appropriate ASF feed system and feed location according to the nature of the ASF to promote efficient combustion and reduce emissions impacts. Key ASF parameters include the particle size, heating value, moisture content, chlorine content and ash content. ASF shall be introduced only in the high-temperature combustion zones of the main kiln burner, the precalciner burner or appropriate secondary firing points in the precalciner.
  - Based on the ASF assessments and fuel analyses, the permittee shall develop a written informational plan identifying operating practices for firing ASF to provide and maintain steady kiln operation. Elements of the plan are not enforceable and may be changed by the plant at any time. The purpose of the plan is to make all operators aware of good operating practices for ASF. *{Permitting Note: As a matter of practical operations, the kiln operators will gradually introduce ASF to provide steady kiln operations and minimize emissions. Once the desired ASF fuel feed rate is achieved, the operator will maintain a constant feed rate to promote efficient combustion, minimize emissions and steady-state operation. Indicators of complete combustion include flue gas oxygen content, CO levels and THC levels. As necessary, operators will review the ASF characteristics for possible adjustments to promote steady operation (e.g., account for increased flue gas volume and velocity from elevated moisture content, high chlorine and/or sulfur contents that may cause buildups, etc.)}*
  - Operators shall discontinue firing ASF if:
    - (1) One of the CEMS, COMS or other continuous monitors indicates a non-compliance issue;

### SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS (DRAFT)

#### A. Pyro-processing Kiln and ASF Feed Systems

- (2) One of the CEMS, COMS or other continuous monitors is down for more than two consecutive hours; or
  - (3) The operator is made aware that the kiln is producing off-specification clinker due to ASF. The firing of that ASF may resume once the issue is addressed and corrective action taken.
13. Reasonable Precautions to Prevent Fugitive Dust: The permittee shall employ the following “reasonable precautions” to minimize fugitive dust emissions at the plant:
- a. Substantially enclose conveyors and bucket elevators to prevent ASF loss and fugitive dust emissions;
  - b. Store ASF under cover;
  - c. Conduct secondary processing (shredding, screening and sizing) under cover;
  - d. If necessary to prevent fugitive dust caused by any ASF from leaving the plant property, the permittee shall apply water (or other environmentally acceptable dust suppressants) to the ASF; otherwise, the ASF shall be kept dry to facilitate burning; and
  - e. Follow the “reasonable precautions” specified in the current Title V air operation permit.

[Rules 62-4.070(3) and 62-296.320, F.A.C.]

#### MONITORING REQUIREMENTS

14. CEMS/COMS: The permittee shall continuously monitor the following with data collected by CEMS/COMS to demonstrate compliance with the emissions standards in the current Title V air operation permit: CO, NO<sub>x</sub>, SO<sub>2</sub> and THC (for VOC) emissions and opacity. Mercury emissions shall be determined by sampling/analysis and material balance as specified in the Title V air operation permit. The default value for the mercury content of tires and TDF shall be 0.0081 µg/g; no additional sampling/analysis is required. [Application 0250020-031-AC and Rule 62-4.070(3), F.A.C.]
15. Operations and Emissions: The permittee shall continuously monitor the: fuel feed rates, kiln feed rate, clinker production rate and baghouse inlet temperature. [Application No. 0250020-031-AC and Rule 62-4.070(3), F.A.C.]

#### TESTING REQUIREMENTS

16. Analytical Methods: The permittee shall use the following analytical methods to determine the composition of the ASF.

| Parameter                                    | Analytical Methods  |
|--|---|
| Moisture, Volatiles, Ash and Fixed Carbon    | Proximate Analysis appropriate for given fuel   |
| Carbon, Hydrogen, Nitrogen Sulfur and Oxygen | Ultimate Analysis appropriate for given fuel  |
| Heating Value                                | ASTM E711 - 87(2004) Standard Test Method for Gross Calorific Value of Refuse-Derived Fuel by the Bomb Calorimeter, or<br>ASTM D5468 - 02(2007) Standard Test Method for Gross Calorific and Ash Value of Waste Materials |
| Chlorine                                     | EPA SW-846 or EPA Method 9056   |
| Mercury                                      | EPA 7470A/7471A   |
| Other Metals                                 | EPA SW-846 or EPA Method 6010B  |

Other equivalent methods may be used with prior written approval of the Division of Air Resource Management. [Rule 62-4.070(3), F.A.C.]

### SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS (DRAFT)

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#### A. Pyro-processing Kiln and ASF Feed Systems

17. Compliance Stack Tests: The permittee shall continue to conduct stack tests in accordance with the methods and requirements in current Title V air operation permit demonstrate compliance with the emissions standards. The required stack tests for PM and dioxins/furans shall be conducted while firing an ASF that has completed the ASF assessment period. [Rule 62-297.310(7)(a)4, F.A.C.]

#### NOTIFICATIONS, RECORDS AND REPORTS

18. Shakedown Notifications: Within five days of completing construction, the permittee shall notify the Compliance Authority and provide a schedule for shakedown and the initial ASF assessment. The Compliance Authority may waive this deadline. [Rule 62-4.070(3), F.A.C.]
19. ASF Assessment Notifications: At least five days prior to firing each new type of ASF material listed in Specific Condition 4, the permittee shall notify the Compliance Authority with a proposed schedule. The Compliance Authority may waive this deadline. [Rule 62-4.070(3), F.A.C.]
20. Reports for Shakedown and ASF Assessments: During periods of authorized shakedowns and ASF assessments, the permittee shall document the shakedown and/or ASF assessment period. These periods may end early when the operator is confident that good operating practices have been defined for the ASF that result in steady kiln system operation. Within 45 days of completing a shakedown and/or assessment of each ASF material listed in Specific Condition 4, the permittee shall provide a written report summarizing the following information collected from the shakedown and/or ASF assessment period.
- For a 24-hour period representing good operating practices and steady kiln operation, report: the representative analysis of the ASF fired; hourly ASF and fossil fuel firing rates; hourly clinker production; hourly CO, NO<sub>x</sub>, SO<sub>2</sub> and THC emissions data from the CEMS; the 6-minute block averages from the COMS; and the inlet temperature to main kiln baghouse (3-hour average). Identify the good operating practices resulting in steady kiln operation.
  - The ASF assessments may occur over several years. Emissions from the initial ASF assessment of a new fuel may be excluded from the report requiring a comparison of actual-to-baseline emissions (Rules 62-212.300(1)(e) and 62-210.370, F.A.C.) since operators are still establishing good operating practices and the ASF will not have been available for the full calendar year. To exclude emissions data collected during an authorized shakedown and/or ASF assessment period from this report, the permittee shall submit the following information for: total clinker production; fossil fuel fired; ASF fired; total CO, NO<sub>x</sub>, SO<sub>2</sub> and THC emissions (tons). Excluded data shall be replaced with data estimated from: the actual clinker production rate; and an emissions factor based on the average emission rates from the rest of the year (i.e., all periods except the shakedown and/or ASF assessment periods).

[Rules 62-4.070(3) and 62-210.370 and 62-212.300, F.A.C.]

21. Stack Test Reports: The permittee shall prepare and submit reports for all required tests in accordance with the requirements specified in Appendix D (Common Testing Requirements) of this permit. [Rule 62-297.310(8), F.A.C.]

## SECTION 4. APPENDICES

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## SECTION 4. APPENDIX A

### Citation Formats and Glossary of Common Terms

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#### CITATION FORMATS

The following illustrate the formats used in the permit to identify applicable requirements from permits and regulations.

##### Old Permit Numbers

Example: Permit No. AC50-123456 or Permit No. AO50-123456

Where: “AC” identifies the permit as an Air Construction Permit  
“AO” identifies the permit as an Air Operation Permit  
“123456” identifies the specific permit project number

##### New Permit Numbers

Example: Permit Nos. 099-2222-001-AC, 099-2222-001-AF, 099-2222-001-AO, or 099-2222-001-AV

Where: “099” represents the specific county ID number in which the project is located  
“2222” represents the specific facility ID number for that county  
“001” identifies the specific permit project number  
“AC” identifies the permit as an air construction permit  
“AF” identifies the permit as a minor source federally enforceable state operation permit  
“AO” identifies the permit as a minor source air operation permit  
“AV” identifies the permit as a major Title V air operation permit

##### PSD Permit Numbers

Example: Permit No. PSD-FL-317

Where: “PSD” means issued pursuant to the preconstruction review requirements of the Prevention of Significant Deterioration of Air Quality  
“FL” means that the permit was issued by the State of Florida  
“317” identifies the specific permit project number

##### Florida Administrative Code (F.A.C.)

Example: [Rule 62-213.205, F.A.C.]

Means: Title 62, Chapter 213, Rule 205 of the Florida Administrative Code

##### Code of Federal Regulations (CFR)

Example: [40 CFR 60.7]

Means: Title 40, Part 60, Section 7

#### GLOSSARY OF COMMON TERMS

° F: degrees Fahrenheit

µg: microgram

AAQS: Ambient Air Quality Standard

acf: actual cubic feet

acfm: actual cubic feet per minute

ARMS: Air Resource Management System  
(Department’s database)

**BACT:** best available control technology

**bhp:** brake horsepower

**Btu:** British thermal units

**CAM:** compliance assurance monitoring

**CEMS:** continuous emissions monitoring system

**cfm:** cubic feet per minute

**CFR:** Code of Federal Regulations

## SECTION 4. APPENDIX A

### Citation Formats and Glossary of Common Terms

|   |  |
|---|--|
| <b>CAA:</b> Clean Air Act   | <b>NO<sub>x</sub>:</b> nitrogen oxides   |
| <b>CMS:</b> continuous monitoring system  | <b>NSPS:</b> New Source Performance Standards  |
| <b>CO:</b> carbon monoxide  | <b>O&amp;M:</b> operation and maintenance  |
| <b>CO<sub>2</sub>:</b> carbon dioxide   | <b>O<sub>2</sub>:</b> oxygen   |
| <b>COMS:</b> continuous opacity monitoring system                                       | <b>OPC:</b> Office of Permitting and Compliance  |
| <b>DARM:</b> Division of Air Resource Management  | <b>Pb:</b> lead  |
| <b>DEP:</b> Department of Environmental Protection                                      | <b>PM:</b> particulate matter  |
| <b>Department:</b> Department of Environmental Protection                               | <b>PM<sub>10</sub>:</b> particulate matter with a mean aerodynamic diameter of 10 microns or less              |
| <b>dscf:</b> dry standard cubic feet  | <b>ppm:</b> parts per million  |
| <b>dscfm:</b> dry standard cubic feet per minute  | <b>ppmv:</b> parts per million by volume   |
| <b>EPA:</b> Environmental Protection Agency   | <b>ppmvd:</b> parts per million by volume, dry basis   |
| <b>ESP:</b> electrostatic precipitator (control system for reducing particulate matter) | <b>QA:</b> quality assurance   |
| <b>EU:</b> emissions unit   | <b>QC:</b> quality control   |
| <b>F:</b> fluoride  | <b>PSD:</b> prevention of significant deterioration  |
| <b>F.A.C.:</b> Florida Administrative Code  | <b>psi:</b> pounds per square inch   |
| <b>F.A.W.:</b> Florida Administrative Weekly  | <b>PTE:</b> potential to emit  |
| <b>F.D.:</b> forced draft   | <b>RACT:</b> reasonably available control technology   |
| <b>F.S.:</b> Florida Statutes   | <b>RATA:</b> relative accuracy test audit  |
| <b>FGD:</b> flue gas desulfurization  | <b>RBLC:</b> EPA's RACT/BACT/LAER Clearinghouse  |
| <b>FGR:</b> flue gas recirculation  | <b>SAM:</b> sulfuric acid mist   |
| <b>ft<sup>2</sup>:</b> square feet  | <b>scf:</b> standard cubic feet  |
| <b>ft<sup>3</sup>:</b> cubic feet   | <b>scfm:</b> standard cubic feet per minute  |
| <b>gpm:</b> gallons per minute  | <b>SIC:</b> standard industrial classification code  |
| <b>gr:</b> grains   | <b>SIP:</b> State Implementation Plan  |
| <b>HAP:</b> hazardous air pollutant   | <b>SNCR:</b> selective non-catalytic reduction (control system used for reducing emissions of nitrogen oxides) |
| <b>Hg:</b> mercury  | <b>SO<sub>2</sub>:</b> sulfur dioxide  |
| <b>I.D.:</b> induced draft  | <b>TPD:</b> tons/day   |
| <b>ID:</b> identification   | <b>TPH:</b> tons per hour  |
| <b>kPa:</b> kilopascals   | <b>TPY:</b> tons per year  |
| <b>lb:</b> pound  | <b>TRS:</b> total reduced sulfur   |
| <b>MACT:</b> maximum achievable technology  | <b>UTM:</b> Universal Transverse Mercator coordinate system  |
| <b>MMBtu:</b> million British thermal units   | <b>VE:</b> visible emissions   |
| <b>MSDS:</b> material safety data sheets  | <b>VOC:</b> volatile organic compounds   |
| <b>MW:</b> megawatt   |  |
| <b>NESHAP:</b> National Emissions Standards for Hazardous Air Pollutants                |  |



## SECTION 4. APPENDIX B

### General Conditions

The permittee shall comply with the following general conditions from Rule 624.160, F.A.C.

1. The terms, conditions, requirements, limitations and restrictions set forth in this permit, are "permit conditions" and are binding and enforceable pursuant to Sections 403.141, 403.727, or 403.859 through 403.861, F.S. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in subsections 403.987(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other department permit that may be required for other aspects of the total project which are not addressed in this permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at reasonable times, access to the premises where the permitted activity is located or conducted to:
  - a. Have access to and copy any records that must be kept under conditions of the permit;
  - b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
  - c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules. Reasonable time may depend on the nature of the concern being investigated.
8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
  - a. A description of and cause of noncompliance; and
  - b. The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance. The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.
9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.111 and 403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

## SECTION 4. APPENDIX B

### General Conditions

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules. A reasonable time for compliance with a new or amended surface water quality standard, other than those standards addressed in Rule 62-302.500, F.A.C., shall include a reasonable time to obtain or be denied a mixing zone for the new or amended standard.
11. This permit is transferable only upon Department approval in accordance with Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
12. This permit or a copy thereof shall be kept at the work site of the permitted activity.
13. This permit also constitutes:
  - a. Determination of Best Available Control Technology (not applicable);
  - b. Determination of Prevention of Significant Deterioration (not applicable); and
  - c. Compliance with New Source Performance Standards (no new applicable requirements).
14. The permittee shall comply with the following:
  - a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
  - b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
  - c. Records of monitoring information shall include:
    - (a) The date, exact place, and time of sampling or measurements;
    - (b) The person responsible for performing the sampling or measurement;
    - (c) The dates analyses were performed;
    - (d) The person responsible for performing the analyses;
    - (e) The analytical techniques or methods used;
    - (f) The results of such analyses.
15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

## SECTION 4. APPENDIX C

### Common Conditions

Unless otherwise specified by permit, the following conditions apply to all emissions units and activities at the facility.

#### EMISSIONS AND CONTROLS

1. **Plant Operation - Problems:** If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by fire, wind or other cause, the permittee shall notify each Compliance Authority as soon as possible, but at least within one working day, excluding weekends and holidays. The notification shall include: pertinent information as to the cause of the problem; steps being taken to correct the problem and prevent future recurrence; and, where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with the conditions of this permit or the regulations. [Rule 624.130, F.A.C.]
2. **Circumvention:** The permittee shall not circumvent the air pollution control equipment or allow the emission of air pollutants without this equipment operating properly. [Rule 62210.650, F.A.C.]
3. **Excess Emissions Allowed:** Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed 2 hours in any 24-hour period unless specifically authorized by the Department for longer duration. Pursuant to Rule 62-210.700(5), F.A.C., the permit subsection may specify more or less stringent requirements for periods of excess emissions. Rule 62-210-700(Excess Emissions), F.A.C., cannot vary or supersede any federal NSPS or NESHAP provision. [Rule 62-210.700(1), F.A.C.]
4. **Excess Emissions Prohibited:** Excess emissions caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure that may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]
5. **Excess Emissions - Notification:** In case of excess emissions resulting from malfunctions, the permittee shall notify the Compliance Authority in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department. [Rule 62-210.700(6), F.A.C.]
6. **VOC or OS Emissions:** No person shall store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds (VOC) or organic solvents (OS) without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department. [Rule 62-296.320(1), F.A.C.]
7. **Objectionable Odor Prohibited:** No person shall cause, suffer, allow or permit the discharge of air pollutants, which cause or contribute to an objectionable odor. An "objectionable odor" means any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance. [Rules 62-296.320(2) and 62-210.200(Definitions), F.A.C.]
8. **General Visible Emissions:** No person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity equal to or greater than 20% opacity. This regulation does not impose a specific testing requirement. [Rule 62-296.320(4)(b)1, F.A.C.]
9. **Unconfined Particulate Emissions:** During the construction period, unconfined particulate matter emissions shall be minimized by dust suppressing techniques such as covering and/or application of water or chemicals to the affected areas, as necessary. [Rule 62-296.320(4)(c), F.A.C.]

#### RECORDS AND REPORTS

10. **Records Retention:** All measurements, records, and other data required by this permit shall be documented in a permanent, legible format and retained for at least 5 years following the date on which such measurements, records, or data are recorded. Records shall be made available to the Department upon request. [Rule 62-213.440(1)(b)2, F.A.C.]
11. **Emissions Computation and Reporting**
  - a. **Applicability.** This rule sets forth required methodologies to be used by the owner or operator of a facility for computing actual emissions, baseline actual emissions, and net emissions increase, as defined at Rule 62210.200, F.A.C., and for computing emissions for purposes of the reporting requirements of subsection 62210.370(3) and paragraph 62-212.300(1)(e), F.A.C., or of any permit condition that requires emissions be computed in accordance

## SECTION 4. APPENDIX C

### Common Conditions

with this rule. This rule is not intended to establish methodologies for determining compliance with the emission limitations of any air permit. [Rule 62-210.370(1), F.A.C.]

- b. *Computation of Emissions.* For any of the purposes set forth in subsection 62-210.370(1), F.A.C., the owner or operator of a facility shall compute emissions in accordance with the requirements set forth in this subsection.
- (1) *Basic Approach.* The owner or operator shall employ, on a pollutant-specific basis, the most accurate of the approaches set forth below to compute the emissions of a pollutant from an emissions unit; provided, however, that nothing in this rule shall be construed to require installation and operation of any continuous emissions monitoring system (CEMS), continuous parameter monitoring system (CPMS), or predictive emissions monitoring system (PEMS) not otherwise required by rule or permit, nor shall anything in this rule be construed to require performance of any stack testing not otherwise required by rule or permit.
- (a) If the emissions unit is equipped with a CEMS meeting the requirements of paragraph 62-210.370(2)(b), F.A.C., the owner or operator shall use such CEMS to compute the emissions of the pollutant, unless the owner or operator demonstrates to the department that an alternative approach is more accurate because the CEMS represents still-emerging technology.
- (b) If a CEMS is not available or does not meet the requirements of paragraph 62-210.370(2)(b), F.A.C., but emissions of the pollutant can be computed pursuant to the mass balance methodology of paragraph 62-210.370(2)(c), F.A.C., the owner or operator shall use such methodology, unless the owner or operator demonstrates to the department that an alternative approach is more accurate.
- (c) If a CEMS is not available or does not meet the requirements of paragraph 62-210.370(2)(b), F.A.C., and emissions cannot be computed pursuant to the mass balance methodology, the owner or operator shall use an emission factor meeting the requirements of paragraph 62-210.370(2)(d), F.A.C., unless the owner or operator demonstrates to the department that an alternative approach is more accurate.
- (2) *Continuous Emissions Monitoring System (CEMS).*
- (a) An owner or operator may use a CEMS to compute emissions of a pollutant for purposes of this rule provided:
- 1) The CEMS complies with the applicable certification and quality assurance requirements of 40 CFR Part 60, Appendices B and F, or, for an acid rain unit, the certification and quality assurance requirements of 40 CFR Part 75, all adopted by reference at Rule 62-204.800, F.A.C.; or
- 2) The owner or operator demonstrates that the CEMS otherwise represents the most accurate means of computing emissions for purposes of this rule.
- (b) Stack gas volumetric flow rates used with the CEMS to compute emissions shall be obtained by the most accurate of the following methods as demonstrated by the owner or operator:
- 1) A calibrated flow meter that records data on a continuous basis, if available; or
- 2) The average flow rate of all valid stack tests conducted during a five-year period encompassing the period over which the emissions are being computed, provided all stack tests used shall represent the same operational and physical configuration of the unit.
- (c) The owner or operator may use CEMS data in combination with an appropriate f factor, heat input data, and any other necessary parameters to compute emissions if such method is demonstrated by the owner or operator to be more accurate than using a stack gas volumetric flow rate as set forth at subparagraph 62-210.370(2)(b)2., F.A.C., above.
- (3) *Mass Balance Calculations.*
- (a) An owner or operator may use mass balance calculations to compute emissions of a pollutant for purposes of this rule provided the owner or operator:
- 1) Demonstrates a means of validating the content of the pollutant that is contained in or created by all materials or fuels used in or at the emissions unit; and

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## SECTION 4. APPENDIX C

### Common Conditions

- 2) Assumes that the emissions unit emits all of the pollutant that is contained in or created by any material or fuel used in or at the emissions unit if it cannot otherwise be accounted for in the process or in the capture and destruction of the pollutant by the unit's air pollution control equipment.
  - (b) Where the vendor of a raw material or fuel which is used in or at the emissions unit publishes a range of pollutant content from such material or fuel, the owner or operator shall use the highest value of the range to compute the emissions, unless the owner or operator demonstrates using site-specific data that another content within the range is more accurate.
  - (c) In the case of an emissions unit using coatings or solvents, the owner or operator shall document, through purchase receipts, records and sales receipts, the beginning and ending VOC inventories, the amount of VOC purchased during the computational period, and the amount of VOC disposed of in the liquid phase during such period.
- (4) Emission Factors.
- a. An owner or operator may use an emission factor to compute emissions of a pollutant for purposes of this rule provided the emission factor is based on site-specific data such as stack test data, where available, unless the owner or operator demonstrates to the department that an alternative emission factor is more accurate. An owner or operator using site-specific data to derive an emission factor, or set of factors, shall meet the following requirements.
    - 1) If stack test data are used, the emission factor shall be based on the average emissions per unit of input, output, or gas volume, whichever is appropriate, of all valid stack tests conducted during at least a five-year period encompassing the period over which the emissions are being computed, provided all stack tests used shall represent the same operational and physical configuration of the unit.
    - 2) Multiple emission factors shall be used as necessary to account for variations in emission rate associated with variations in the emissions unit's operating rate or operating conditions during the period over which emissions are computed.
    - 3) The owner or operator shall compute emissions by multiplying the appropriate emission factor by the appropriate input, output or gas volume value for the period over which the emissions are computed. The owner or operator shall not compute emissions by converting an emission factor to pounds per hour and then multiplying by hours of operation, unless the owner or operator demonstrates that such computation is the most accurate method available.
  - b. If site-specific data are not available to derive an emission factor, the owner or operator may use a published emission factor directly applicable to the process for which emissions are computed. If no directly-applicable emission factor is available, the owner or operator may use a factor based on a similar, but different, process.
- (5) Accounting for Emissions During Periods of Missing Data from CEMS, PEMS, or CPMS. In computing the emissions of a pollutant, the owner or operator shall account for the emissions during periods of missing data from CEMS, PEMS, or CPMS using other site-specific data to generate a reasonable estimate of such emissions.
- (6) Accounting for Emissions During Periods of Startup and Shutdown. In computing the emissions of a pollutant, the owner or operator shall account for the emissions during periods of startup and shutdown of the emissions unit.
- (7) Fugitive Emissions. In computing the emissions of a pollutant from a facility or emissions unit, the owner or operator shall account for the fugitive emissions of the pollutant, to the extent quantifiable, associated with such facility or emissions unit.
- (8) Recordkeeping. The owner or operator shall retain a copy of all records used to compute emissions pursuant to this rule for a period of five years from the date on which such emissions information is submitted to the department for any regulatory purpose.

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SECTION 4. APPENDIX C

Common Conditions

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[Rule 62-210.370(2), F.A.C.]

c. *Annual Operating Report for Air Pollutant Emitting Facility*

- (1) The Annual Operating Report for Air Pollutant Emitting Facility (DEP Form No. 62-210.900(5)) shall be completed each year for the following facilities:
  - a. All Title V sources.
  - b. All synthetic non-Title V sources.
  - c. All facilities with the potential to emit ten (10) tons per year or more of volatile organic compounds or twenty-five (25) tons per year or more of nitrogen oxides and located in an ozone nonattainment area or ozone air quality maintenance area.
  - d. All facilities for which an annual operating report is required by rule or permit.
- (2) Notwithstanding paragraph 62-210.370(3)(a), F.A.C., no annual operating report shall be required for any facility operating under an air general permit.
- (3) The annual operating report shall be submitted to the appropriate Department of Environmental Protection (DEP) division, district or DEP-approved local air pollution control program office by April 1 of the following year. If the report is submitted using the Department's electronic annual operating report software, there is no requirement to submit a copy to any DEP or local air program office.
- (4) Emissions shall be computed in accordance with the provisions of subsection 62-210.370(2), F.A.C., for purposes of the annual operating report.
- (5) Facility Relocation. Unless otherwise provided by rule or more stringent permit condition, the owner or operator of a relocatable facility must submit a Facility Relocation Notification Form (DEP Form No. 62-210.900(6)) to the Department at least 30 days prior to the relocation. A separate form shall be submitted for each facility in the case of the relocation of multiple facilities which are jointly owned or operated.

[Rule 62-210.370(3), F.A.C.]

**SECTION 4. APPENDIX D**  
**Common Testing Requirements**

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Unless otherwise specified in the permit, the following testing requirements apply to all emissions units that require testing.

**COMPLIANCE TESTING REQUIREMENTS**

1. Required Number of Test Runs: For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured; provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five-day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five-day period allowed for the test, the Secretary or his or her designee may accept the results of two complete runs as proof of compliance, provided that the arithmetic mean of the two complete runs is at least 20% below the allowable emission limiting standard. [Rule 62-297.310(1), F.A.C.]
2. Operating Rate During Testing: Testing of emissions shall be conducted with the emissions unit operating at permitted capacity. If it is impractical to test at permitted capacity, an emissions unit may be tested at less than the maximum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test rate until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. [Rule 62-297.310(2), F.A.C.]
3. Calculation of Emission Rate: For each emissions performance test, the indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule. [Rule 62-297.310(3), F.A.C.]
4. Applicable Test Procedures:
  - a. Required Sampling Time.
    - (1) Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.
    - (2) Opacity Compliance Tests. When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:
      - (a) For batch, cyclical processes, or other operations which are normally completed within less than the minimum observation period and do not recur within that time, the period of observation shall be equal to the duration of the batch cycle or operation completion time.
      - (b) The observation period for special opacity tests that are conducted to provide data to establish a surrogate standard pursuant to Rule 62-297.310(5)(k), F.A.C., Waiver of Compliance Test Requirements, shall be established as necessary to properly establish the relationship between a proposed surrogate standard and an existing mass emission limiting standard.
      - (c) The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.
  - b. Minimum Sample Volume. Unless otherwise specified in the applicable rule or test method, the minimum sample volume per run shall be 25 dry standard cubic feet.

**SECTION 4. APPENDIX D**  
**Common Testing Requirements**

- c. Calibration of Sampling Equipment. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1, F.A.C.
- d. Calibration of Sampling Equipment. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1.
- e. Allowed Modification to EPA Method 5. When EPA Method 5 is required, the following modification is allowed: the heated filter may be separated from the impingers by a flexible tube.

| ITEM                            | MINIMUM CALIBRATION FREQUENCY                                   | REFERENCE INSTRUMENT  | TOLERANCE   |
|---------------------------------|---|---|---|
| Liquid in glass thermometer     | Annually  | ASTM Hg in glass ref. thermometer or equivalent or thermometric points                    | +/-2%   |
| Bimetallic thermometer          | Quarterly   | Calibration liquid in glass   | 5° F  |
| Thermocouple                    | Annually  | ASTM Hg in glass ref. thermometer, NBS calibrated reference and potentiometer             | 5° F  |
| Barometer                       | Monthly   | Hg barometer or NOAA station  | +/-1% scale   |
| Pitot Tube                      | When required or when damaged                                   | By construction or measurements in wind tunnel D greater than 16" and standard pitot tube | See EPA Method 2, Fig. 2-2 & 2-3  |
| Probe Nozzles                   | Before each test or when nicked, dented, or corroded            | Micrometer  | +/- 0.001" mean of at least three readings; Max. deviation between readings, 0.004" |
| Dry Gas Meter and Orifice Meter | 1. Full Scale: When received, when 5% change observed, annually | Spirometer or calibrated wet test or dry gas test meter                                   | 2%  |
|                                 | 2. One Point: Semiannually                                      |   |   |
|                                 | 3. Check after each test series                                 | Comparison check  | 5%  |

[Rule 62-297.310(4), F.A.C.]

5. Determination of Process Variables:

- a. *Required Equipment.* The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.
- b. *Accuracy of Equipment.* Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.

[Rule 62-297.310(5), F.A.C.]



**SECTION 4. APPENDIX D**  
**Common Testing Requirements**

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6. Sampling Facilities: The permittee shall install permanent stack sampling ports and provide sampling facilities that meet the requirements of Rule 62-297.310(6), F.A.C. Sampling facilities include sampling ports, work platforms, access to work platforms, electrical power, and sampling equipment support. All stack sampling facilities must also comply with all applicable Occupational Safety and Health Administration (OSHA) Safety and Health Standards described in 29 CFR Part 1910, Subparts D and E.
- a. Permanent Test Facilities. The owner or operator of an emissions unit for which a compliance test, other than a visible emissions test, is required on at least an annual basis, shall install and maintain permanent stack sampling facilities.
  - b. Temporary Test Facilities. The owner or operator of an emissions unit that is not required to conduct a compliance test on at least an annual basis may use permanent or temporary stack sampling facilities. If the owner chooses to use temporary sampling facilities on an emissions unit, and the Department elects to test the unit, such temporary facilities shall be installed on the emissions unit within 5 days of a request by the Department and remain on the emissions unit until the test is completed.
  - c. Sampling Ports.
    - (1) All sampling ports shall have a minimum inside diameter of 3 inches.
    - (2) The ports shall be capable of being sealed when not in use.
    - (3) The sampling ports shall be located in the stack at least 2 stack diameters or equivalent diameters downstream and at least 0.5 stack diameter or equivalent diameter upstream from any fan, bend, constriction or other flow disturbance.
    - (4) For emissions units for which a complete application to construct has been filed prior to December 1, 1980, at least two sampling ports, 90 degrees apart, shall be installed at each sampling location on all circular stacks that have an outside diameter of 15 feet or less. For stacks with a larger diameter, four sampling ports, each 90 degrees apart, shall be installed. For emissions units for which a complete application to construct is filed on or after December 1, 1980, at least two sampling ports, 90 degrees apart, shall be installed at each sampling location on all circular stacks that have an outside diameter of 10 feet or less. For stacks with larger diameters, four sampling ports, each 90 degrees apart, shall be installed. On horizontal circular ducts, the ports shall be located so that the probe can enter the stack vertically, horizontally or at a 45 degree angle.
    - (5) On rectangular ducts, the cross sectional area shall be divided into the number of equal areas in accordance with EPA Method 1. Sampling ports shall be provided which allow access to each sampling point. The ports shall be located so that the probe can be inserted perpendicular to the gas flow.
  - d. Work Platforms.
    - (1) Minimum size of the working platform shall be 24 square feet in area. Platforms shall be at least 3 feet wide.
    - (2) On circular stacks with 2 sampling ports, the platform shall extend at least 110 degrees around the stack.
    - (3) On circular stacks with more than two sampling ports, the work platform shall extend 360 degrees around the stack.
    - (4) All platforms shall be equipped with an adequate safety rail (ropes are not acceptable), toe board, and hinged floor-opening cover if ladder access is used to reach the platform. The safety rail directly in line with the sampling ports shall be removable so that no obstruction exists in an area 14 inches below each sample port and 6 inches on either side of the sampling port.
  - e. Access to Work Platform.
    - (1) Ladders to the work platform exceeding 15 feet in length shall have safety cages or fall arresters with a minimum of 3 compatible safety belts available for use by sampling personnel.
    - (2) Walkways over free-fall areas shall be equipped with safety rails and toe boards.
  - f. Electrical Power.

**SECTION 4. APPENDIX D**  
**Common Testing Requirements**

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- (1) A minimum of two 120-volt AC, 20-amp outlets shall be provided at the sampling platform within 20 feet of each sampling port.
- (2) If extension cords are used to provide the electrical power, they shall be kept on the plant's property and be available immediately upon request by sampling personnel.

g. Sampling Equipment Support.

- (1) A three-quarter inch eyebolt and an angle bracket shall be attached directly above each port on vertical stacks and above each row of sampling ports on the sides of horizontal ducts.
  - (a) The bracket shall be a standard 3 inch × 3 inch × one-quarter inch equal-legs bracket which is 1 and one-half inches wide. A hole that is one-half inch in diameter shall be drilled through the exact center of the horizontal portion of the bracket. The horizontal portion of the bracket shall be located 14 inches above the centerline of the sampling port.
  - (b) A three-eighth inch bolt which protrudes 2 inches from the stack may be substituted for the required bracket. The bolt shall be located 15 and one-half inches above the centerline of the sampling port.
  - (c) The three-quarter inch eyebolt shall be capable of supporting a 500 pound working load. For stacks that are less than 12 feet in diameter, the eyebolt shall be located 48 inches above the horizontal portion of the angle bracket. For stacks that are greater than or equal to 12 feet in diameter, the eyebolt shall be located 60 inches above the horizontal portion of the angle bracket. If the eyebolt is more than 120 inches above the platform, a length of chain shall be attached to it to bring the free end of the chain to within safe reach from the platform.
- (2) A complete monorail or dual rail arrangement may be substituted for the eyebolt and bracket.
- (3) When the sample ports are located in the top of a horizontal duct, a frame shall be provided above the port to allow the sample probe to be secured during the test.

[Rule 62-297.310(6), F.A.C.]

7. Frequency of Compliance Tests. The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.

a. General Compliance Testing.

1. The owner or operator of a new or modified emissions unit that is subject to an emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining an operation permit for such emissions unit.
2. For excess emission limitations for particulate matter specified in Rule 62-210.700, F.A.C., a compliance test shall be conducted annually while the emissions unit is operating under soot blowing conditions in each federal fiscal year during which soot blowing is part of normal emissions unit operation, except that such test shall not be required in any federal fiscal year in which a fossil fuel steam generator does not burn liquid and/or solid fuel for more than 400 hours other than during startup.
3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to sub-subparagraph 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:
  - (a) Did not operate; or
  - (b) In the case of a fuel burning emissions unit, burned liquid and/or solid fuel for a total of no more than 400 hours,
4. During each federal fiscal year (October 1 – September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:

**SECTION 4. APPENDIX D**  
**Common Testing Requirements**

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- (a) Visible emissions, if there is an applicable standard;
  - (b) Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; or 100 tons per year or more of any other regulated air pollutant; and
  - (c) Each NESHAP pollutant, if there is an applicable emission standard.
- 5. An annual compliance test for particulate matter emissions shall not be required for any fuel burning emissions unit that, in a federal fiscal year, does not burn liquid and/or solid fuel, other than during startup, for a total of more than 400 hours.
  - 6. For fossil fuel steam generators on a semi-annual particulate matter emission compliance testing schedule, a compliance test shall not be required for any six-month period in which liquid and/or solid fuel is not burned for more than 200 hours other than during startup.
  - 7. For emissions units electing to conduct particulate matter emission compliance testing quarterly pursuant to paragraph 62-296.405(2)(a), F.A.C., a compliance test shall not be required for any quarter in which liquid and/or solid fuel is not burned for more than 100 hours other than during startup.
  - 8. Any combustion turbine that does not operate for more than 400 hours per year shall conduct a visible emissions compliance test once per each five-year period, coinciding with the term of its air operation permit.
  - 9. The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.
  - 10. An annual compliance test conducted for visible emissions shall not be required for units exempted from air permitting pursuant to subsection 62-210.300(3), F.A.C.; units determined to be insignificant pursuant to subparagraph 62-213.300(2)(a)1., F.A.C., or paragraph 62-213.430(6)(b), F.A.C.; or units permitted under the General Permit provisions in paragraph 62-210.300(4)(a) or Rule 62-213.300, F.A.C., unless the general permit specifically requires such testing.
    - (a) Special Compliance Tests. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it shall require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.
    - (b) Waiver of Compliance Test Requirements. If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of paragraph 62-297.310(7)(b), F.A.C., shall apply.

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

**REPORTS**

8. Test Reports:

- a. The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test.
- b. The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed.

**SECTION 4. APPENDIX D**  
**Common Testing Requirements**

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- c. The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information.
- (1) The type, location, and designation of the emissions unit tested.
  - (2) The facility at which the emissions unit is located.
  - (3) The owner or operator of the emissions unit.
  - (4) The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
  - (5) The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
  - (6) The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
  - (7) A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
  - (8) The date, starting time and duration of each sampling run.
  - (9) The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
  - (10) The number of points sampled and configuration and location of the sampling plane.
  - (11) For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
  - (12) The type, manufacturer and configuration of the sampling equipment used.
  - (13) Data related to the required calibration of the test equipment.
  - (14) Data on the identification, processing and weights of all filters used.
  - (15) Data on the types and amounts of any chemical solutions used.
  - (16) Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
  - (17) The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
  - (18) All measured and calculated data required to be determined by each applicable test procedure for each run.
  - (19) The detailed calculations for one run that relate the collected data to the calculated emission rate.
  - (20) The applicable emission standard and the resulting maximum allowable emission rate for the emissions unit plus the test result in the same form and unit of measure.
  - (21) A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

[Rule 62-297.310(8), F.A.C.]

**MISCELLANEOUS**

9. Stack and Duct: The terms stack and duct are used interchangeably in this rule. [Rule 62-297.310(9), F.A.C.]

**Friday, Barbara**

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**From:** Microsoft Exchange  
**To:** 'atownsend@titanamerica.com'  
**Sent:** Monday, August 08, 2011 1:35 PM  
**Subject:** Relayed: Tarmac America, LLC, Pennsuco Cement Plant - Final Air Permit No. 0250020-031-AC

**Delivery to these recipients or distribution lists is complete, but delivery notification was not sent by the destination:**

'atownsend@titanamerica.com'

Subject: Tarmac America, LLC, Pennsuco Cement Plant - Final Air Permit No. 0250020-031-AC

---

Sent by Microsoft Exchange Server 2007

## Friday, Barbara

---

**From:** Townsend Al [atownsend@titanamerica.com]  
**Sent:** Monday, August 08, 2011 3:12 PM  
**To:** Friday, Barbara  
**Subject:** Re: Tarmac America, LLC, Pennsuco Cement Plant - Final Air Permit No. 0250020-031-AC

Got it! Thank you!

---

**From:** Friday, Barbara [mailto:Barbara.Friday@dep.state.fl.us]  
**Sent:** Monday, August 08, 2011 01:34 PM  
**To:** Townsend Al  
**Cc:** 'mlee@kooglerassociates.com' <mlee@kooglerassociates.com>; 'kulmer@kooglerassociates.com' <kulmer@kooglerassociates.com>; 'mtribby@kooglerassociates.com' <mtribby@kooglerassociates.com>; Anderson, Lennon <Lennon.Anderson@dep.state.fl.us>; 'muthim@miamidade.gov' <muthim@miamidade.gov>; 'Kathleen Forney' <forney.kathleen@epa.gov>; 'abrams.heather@epamail.epa.gov' <abrams.heather@epamail.epa.gov>; Ana Oquendo <Oquendo.Ana@epamail.epa.gov>; 'langston.david@epa.gov' <langston.david@epa.gov>; Searce, Lynn <Lynn.Searce@dep.state.fl.us>; DeVore, Christy <Christy.DeVore@dep.state.fl.us>; Arif, Syed <Syed.Arif@dep.state.fl.us>  
**Subject:** Tarmac America, LLC, Pennsuco Cement Plant - Final Air Permit No. 0250020-031-AC

Dear Mr. Townsend:

Attached is the official **Notice of Final Permit** for the project referenced below. Click on the link displayed below to access the permit project documents and send a "reply" message verifying receipt of the document(s) provided in the link; this may be done by selecting "Reply" on the menu bar of your e-mail software, noting that you can view the documents, and then selecting "Send".

**Note: We must receive verification that you are able to access the documents. Your immediate reply will preclude subsequent e-mail transmissions to verify accessibility of the document(s).**

Attention: Christy DeVore

Owner/Company Name: TARMAC AMERICA, LLC  
Facility Name: TARMAC-PENNSUCO CEMENT  
Project Number: 0250020-031-AC  
Permit Status: FINAL  
Permit Activity: CONSTRUCTION  
Facility County: MIAMI-DADE

Click on the following link to access the permit project documents:

[http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf\\_permit\\_zip\\_files/0250020.031.AC.F\\_pdf.zip](http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf_permit_zip_files/0250020.031.AC.F_pdf.zip)

The Office of Permitting and Compliance is issuing electronic documents for permits, notices and other correspondence in lieu of hard copies through the United States Postal System, to provide greater service to the applicant and the engineering community. Access these documents by clicking on the link provided above, or search for other project documents using the "Air Permit Documents Search" website at <http://www.dep.state.fl.us/air/emission/apds/default.asp>.

Permit project documents addressed in this email may require immediate action within a specified time frame. Please open and review the document(s) as soon as possible, and verify that they are accessible. Please advise this office of any changes to your e-mail address or that of the Engineer-of-Record. If you have any problems opening the documents or would like further information, please contact the Florida Department of Environmental Protection, Office of Permitting and Compliance.

Note: The attached document is in Adobe Portable Document Format (pdf). Adobe Acrobat Reader can be downloaded for free at the following internet site: <<http://www.adobe.com/products/acrobat/readstep.html>> .

Regards,

**Barbara Friday**

Office of Permitting and Compliance (OPC)

Division of Air Resources Management

850-717-9095

*The Department of Environmental Protection values your feedback as a customer. DEP Secretary Herschel T. Vinyard Jr. is committed to continuously assessing and improving the level and quality of services provided to you. Please take a few minutes to comment on the quality of service you received. Simply click on [this link to the DEP Customer Survey](#). Thank you in advance for completing the survey.*

Attention:

Owner/Company Name: TARMAC AMERICA, LLC

Facility Name: TARMAC-PENNSUCO CEMENT

Project Number: 0250020-031-AC

Permit Status: FINAL

Permit Activity: CONSTRUCTION

Facility County: MIAMI-DADE

Click on the following link to access the permit project documents:

[http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf\\_permit\\_zip\\_files/0250020.031.AC.F\\_pdf.zip](http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf_permit_zip_files/0250020.031.AC.F_pdf.zip)

**Friday, Barbara**

---

**From:** Microsoft Exchange  
**To:** 'mlee@kooglerassociates.com'; 'kulmer@kooglerassociates.com';  
'mtribby@kooglerassociates.com'  
**Sent:** Monday, August 08, 2011 1:35 PM  
**Subject:** Relayed: Tarmac America, LLC, Pennsuco Cement Plant - Final Air Permit No. 0250020-031-AC

**Delivery to these recipients or distribution lists is complete, but delivery notification was not sent by the destination:**

'mlee@kooglerassociates.com'

'kulmer@kooglerassociates.com'

'mtribby@kooglerassociates.com'

Subject: Tarmac America, LLC, Pennsuco Cement Plant - Final Air Permit No. 0250020-031-AC

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*Sent by Microsoft Exchange Server 2007*



## Friday, Barbara

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**From:** Max Lee [mlee@kooglerassociates.com]  
**Sent:** Monday, August 08, 2011 1:42 PM  
**To:** Friday, Barbara  
**Subject:** Read: Tarmac America, LLC, Pennsuco Cement Plant - Final Air Permit No. 0250020-031-AC  
**Attachments:** ATT00001

## Friday, Barbara

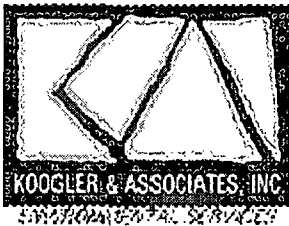
---

**From:** Max Lee [mlee@kooglerassociates.com]  
**Sent:** Monday, August 08, 2011 1:45 PM  
**To:** Friday, Barbara; atownsend@titanamerica.com  
**Cc:** kulmer@kooglerassociates.com; mtribby@kooglerassociates.com; Anderson, Lenion; muthim@miamidade.gov; 'Kathleen Forney'; abrams.heather@epamail.epa.gov; 'Ana Oquendo'; langston.david@epa.gov; Searce, Lynn; DeVore, Christy; Arif, Syed  
**Subject:** RE: Tarmac America, LLC, Pennsuco Cement Plant - Final Air Permit No. 0250020-031-AC

Received! and a most welcome event.

Thank you,

Max Lee, Ph.D., P.E.  
President  
Koogler & Associates, Inc.  
4014 NW 13th St  
Gainesville, FL 32609  
cell(352) 318-4450  
off(352) 377-5822  
[mlee@kooglerassociates.com](mailto:mlee@kooglerassociates.com)  
[www.kooglerassociates.com](http://www.kooglerassociates.com)



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**From:** Friday, Barbara [<mailto:Barbara.Friday@dep.state.fl.us>]  
**Sent:** Monday, August 08, 2011 1:34 PM  
**To:** 'atownsend@titanamerica.com'  
**Cc:** 'mlee@kooglerassociates.com'; 'kulmer@kooglerassociates.com'; 'mtribby@kooglerassociates.com'; Anderson, Lennon; 'muthim@miamidade.gov'; 'Kathleen Forney'; 'abrams.heather@epamail.epa.gov'; Ana Oquendo; 'langston.david@epa.gov'; Searce, Lynn; DeVore, Christy; Arif, Syed  
**Subject:** Tarmac America, LLC, Pennsuco Cement Plant - Final Air Permit No. 0250020-031-AC

Dear Mr. Townsend:

Attached is the official **Notice of Final Permit** for the project referenced below. Click on the link displayed below to access the permit project documents and send a "reply" message verifying receipt of the document(s) provided in the link; this may be done by selecting "Reply" on the menu bar of your e-mail software, noting that you can view the documents, and then selecting "Send".

**Note: We must receive verification that you are able to access the documents. Your immediate reply will preclude subsequent e-mail transmissions to verify accessibility of the document(s).**

Attention: Christy DeVore

Owner/Company Name: TARMAC AMERICA, LLC  
Facility Name: TARMAC-PENNSUCO CEMENT  
Project Number: 0250020-031-AC  
Permit Status: FINAL  
Permit Activity: CONSTRUCTION  
Facility County: MIAMI-DADE

Click on the following link to access the permit project documents:

[http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf\\_permit\\_zip\\_files/0250020.031.AC.F\\_pdf.zip](http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf_permit_zip_files/0250020.031.AC.F_pdf.zip)

The Office of Permitting and Compliance is issuing electronic documents for permits, notices and other correspondence in lieu of hard copies through the United States Postal System, to provide greater service to the applicant and the engineering community. Access these documents by clicking on the link provided above, or search for other project documents using the “*Air Permit Documents Search*” website at <http://www.dep.state.fl.us/air/emission/apds/default.asp>.

Permit project documents addressed in this email may require immediate action within a specified time frame. Please open and review the document(s) as soon as possible, and verify that they are accessible. Please advise this office of any changes to your e-mail address or that of the Engineer-of-Record. If you have any problems opening the documents or would like further information, please contact the Florida Department of Environmental Protection, Office of Permitting and Compliance.

Note: The attached document is in Adobe Portable Document Format (pdf). Adobe Acrobat Reader can be downloaded for free at the following internet site: <http://www.adobe.com/products/acrobat/readstep.html> .

Regards,

**Barbara Friday**

Office of Permitting and Compliance (OPC)

Division of Air Resources Management

850-717-9095

*The Department of Environmental Protection values your feedback as a customer. DEP Secretary Herschel T. Vinyard Jr. is committed to continuously assessing and improving the level and quality of services provided to you. Please take a few minutes to comment on the quality of service you received. Simply click on [this link to the DEP Customer Survey](#). Thank you in advance for completing the survey.*

Attention:

Owner/Company Name: TARMAC AMERICA, LLC  
Facility Name: TARMAC-PENNSUCO CEMENT  
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\_\_\_\_\_ Information from ESET NOD32 Antivirus, version of virus signature database 6359 (20110808)  
\_\_\_\_\_

The message was checked by ESET NOD32 Antivirus.

<http://www.eset.com>

\_\_\_\_\_ Information from ESET NOD32 Antivirus, version of virus signature database 6359 (20110808)  
\_\_\_\_\_

The message was checked by ESET NOD32 Antivirus.

<http://www.eset.com>

**Friday, Barbara**

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**From:** Langston.David@epamail.epa.gov  
**Sent:** Monday, August 08, 2011 2:18 PM  
**To:** Friday, Barbara  
**Subject:** Re: Tarmac America, LLC, Pennsuco Cement Plant - Final Air Permit No. 0250020-031-AC

Thank you

David Langston  
Sr. Environmental Engineer  
RCRA Programs  
404-562-8478  
[langston.david@epa.gov](mailto:langston.david@epa.gov)

NOTE: This message and any attachments from the U.S. Environmental Protection Agency may contain CONFIDENTIAL and legally protected information. If you are not the addressee or the intended recipient, please do not read, copy, use or disclose this communication to others. Also, please notify the sender by replying to this message and then delete it from your system.

**Friday, Barbara**

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**From:** Microsoft Exchange  
**To:** Searce, Lynn; Anderson, Lennon  
**Sent:** Monday, August 08, 2011 1:34 PM  
**Subject:** Delivered: Tarmac America, LLC, Pennsuco Cement Plant - Final Air Permit No. 0250020-031-AC

**Your message has been delivered to the following recipients:**

Searce, Lynn

Anderson, Lennon

Subject: Tarmac America, LLC, Pennsuco Cement Plant - Final Air Permit No. 0250020-031-AC

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Sent by Microsoft Exchange Server 2007

**Friday, Barbara**

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**From:** Microsoft Exchange  
**To:** DeVore, Christy; Arif, Syed  
**Sent:** Monday, August 08, 2011 1:34 PM  
**Subject:** Delivered: Tarmac America, LLC, Pennsuco Cement Plant - Final Air Permit No. 0250020-031-AC

**Your message has been delivered to the following recipients:**

DeVore, Christy

Arif, Syed

Subject: Tarmac America, LLC, Pennsuco Cement Plant - Final Air Permit No. 0250020-031-AC

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Sent by Microsoft Exchange Server 2007

## Friday, Barbara

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**From:** DeVore, Christy  
**To:** Friday, Barbara  
**Sent:** Monday, August 08, 2011 2:03 PM  
**Subject:** Read: Tarmac America, LLC, Pennsuco Cement Plant - Final Air Permit No. 0250020-031-AC

Your message was read on Monday, August 08, 2011 2:02:59 PM (GMT-05:00) Eastern Time (US & Canada).



## Friday, Barbara

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**From:** Arif, Syed  
**To:** Friday, Barbara  
**Sent:** Monday, August 08, 2011 1:39 PM  
**Subject:** Read: Tarmac America, LLC, Pennsuco Cement Plant - Final Air Permit No. 0250020-031-AC

Your message was read on Monday, August 08, 2011 1:39:03 PM (GMT-05:00) Eastern Time (US & Canada).

# Florida Department of Environmental Protection

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## Memorandum

To: Jeff Koerner, Program Administrator, Office of Permitting and Compliance

Through: Syed Arif, Office of Permitting and Compliance SA

From: Christy DeVore, Office of Permitting and Compliance CD

Date: August 8, 2011

Subject: Final Air Permit No. 0250020-031-AC  
Tarmac America, LLC, Pennsuco Cement Plant  
Alternative Solid Fuels

The final permit for this project is attached for your approval and signature. The project requires a minor air construction permit to authorize: the construction of mechanical and pneumatic solid fuel handling and feed systems for the precalciner and main kiln burner; installation of a new multi-fuel main kiln burner system; and the firing of a variety of alternative solid fuels including combinations of plastics, tire-derived fuel, reject roofing shingles, clean cellulosic biomass, manufactured cellulosic biomass, agricultural fibrous organic byproducts, pre-consumer reject paper, carpet-derived fuel and engineered fuels. The proposed work will be performed at the existing facility located in Miami-Dade County at 11000 NW 121 Way in Medley, Florida. The project is considered a new source review reform project.

The attached Final Determination summarizes the publication and comment process. There are no pending petitions for administrative hearings or extensions of time in which to file a petition for an administrative hearing. I recommend your approval of the attached final permit for this project.

Attachments

JFK/scd

## FINAL DETERMINATION

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### PERMITTEE

Tarmac America, LLC  
455 Fairway Drive, Suite 200  
Deerfield Beach, FL 33441

### PERMITTING AUTHORITY

Florida Department of Environmental Protection (Department)  
Division of Air Resource Management  
Office of Permitting and Compliance  
2600 Blair Stone Road, MS #5505  
Tallahassee, Florida 32399-2400

### PROJECT

Air Permit No. 0250020-031-AC  
Minor Air Construction Permit  
Pennsuco Cement Plant

The applicant proposes the construction of mechanical and pneumatic solid fuel handling and feed systems for the precalciner and main kiln burner; installation of a new multi-fuel main kiln burner system; and the firing of a variety of alternative solid fuels including combinations of plastics, tire-derived fuel, reject roofing shingles, clean cellulosic biomass, manufactured cellulosic biomass, agricultural fibrous organic byproducts, pre-consumer reject paper, carpet-derived fuel and engineered fuels.

### NOTICE AND PUBLICATION

The Department distributed a draft minor air construction permit package on July 15, 2011. The applicant published the Public Notice in the South Florida Business Journal on July 22, 2011. The Department received the proof of publication on August 8, 2011.

### COMMENTS

No comments on the Draft Permit were received from the public, the EPA Region 4 Office or the applicant.

### CONCLUSION

The final action of the Department is to issue the permit as drafted.

**Friday, Barbara**

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**To:** atownsend@titanamerica.com  
**Cc:** mlee@kooglerassociates.com; kulmer@kooglerassociates.com;  
mtribby@kooglerassociates.com; Anderson, Lennon; muthim@miamidade.gov; Kathleen  
Forney; abrams.heather@epamail.epa.gov; Ana Oquendo; langston.david@epa.gov;  
Scearce, Lynn; DeVore, Christy; Arif, Syed  
**Subject:** Tarmac America, LLC, Pennsuco Cement Plant - Final Air Permit No. 0250020-031-AC  
**Attachments:** 0250020-031-AVFinalPermitSignaturePage.pdf

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