





Florida Department of Environmental Protection

Memorandum

To: Mike Halpin, Division of Air Resource Management 
Through: Trina Vielhauer, Division of Air Resource Management 
Jeff Koerner, Permitting and Compliance Section 
From: Christy DeVore, Permitting and Compliance Section 
Date: May 23, 2011
Subject: Final Air Permit No. 0530021-031-AC
CEMEX Construction Materials Florida, LLC, Brooksville South Cement Plant
Temporary Trials of Alternative Fuels

The final permit for this project is attached for your approval and signature. The project requires a minor air construction permit to authorize temporary trials to co-fire coal with the following alternative fuel materials in the existing cement kiln to gather operational and emissions data: non-chlorinated agricultural plastics, tire-derived fuel including tire fluff, reject roofing shingles, clean woody biomass, agricultural fibrous organic byproducts, pre-consumer reject paper, carpet-derived fuel and on-specification used oil generated off-site. The final permit limits the amounts of each material and each trial is limited to no more than 90 operational days of firing the alternative fuel material. The original draft permit was revised from no more than 60 operational days to 90 for the temporary trial period in the revised draft permit. Other changes made from the original draft permit to the revised draft permit include the following:

- The requirement for testing with both the raw mill up and down was revised to: If alternative fuels are only fired with the raw mill up, then the test may be conducted only with the raw mill up; otherwise separate tests shall be conducted with the raw mill up and the raw mill down.
- The requirement for material supplier of manufacturer certification, analytical results and the amount was changed from each delivery to the first delivery. The sampling and analyses the facility performs was reduced to three, separate representative composite samples (which may including the first day sample and any obtained during stack tests) that were taken at least three operating days apart.
- The requirement for particulate matter and metals stack testing was removed. Opacity is monitored and metal sampling is required. The requirement for pesticide stack testing was changed to only required if analytical data detects pesticides in the non-chlorinated agricultural plastics.
- The following provision was added due to the unexpected problems facilities have experienced during trial burns: Due to extenuating circumstances, the permittee may request that the Bureau of Air Regulation extend the allowable operating days to finish firing the permitted amount of alternative fuel.
- The time period to remove the alternative fuel materials not burned from the site has been extended from 7 days to within 30 days of completing the trial.

The following emissions will be continuously monitored during each trial: carbon monoxide, nitrogen oxides, sulfur dioxide, total hydrocarbons and stack opacity. Stack testing is required for: dioxin/furans; hydrochloric acid; and pesticides while firing non-chlorinated agricultural plastics if pesticides are detected in the samples. The plant must continue to comply with all emissions standards in the current Title V air operation permit.

The proposed work will be performed at the existing Brooksville South Cement Plant, which is located in Hernando County at 10311 Cement Plant Road in Brooksville Florida. The project is not 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

TLV/jfk/scd

FINAL DETERMINATION

PERMITTEE

CEMEX Construction Materials, LLC
10311 Cement Plant Road
Brooksville, Florida 34601

PERMITTING AUTHORITY

Florida Department of Environmental Protection (Department)
Division of Air Resource Management
Bureau of Air Regulation, New Source Review Section
2600 Blair Stone Road, MS #5505
Tallahassee, Florida 32399-2400

PROJECT

Air Permit No. 0530021-031-AC
Minor Air Construction Permit
Brooksville South Cement Plant

The permit authorizes temporary trials to co-fire coal with the following alternative fuel materials in the existing cement kiln to gather operational and emissions data: non-chlorinated agricultural plastics, tire-derived fuel including tire fluff, reject roofing shingles, clean woody biomass, agricultural fibrous organic byproducts, pre-consumer reject paper, carpet-derived fuel and on-specification used oil generated off-site.

NOTICE AND PUBLICATION

The Department distributed a draft minor air construction permit package on May 5, 2011. The applicant published the Public Notice in the St. Petersburg Times on May 7, 2011. The Department received the proof of publication on May 12, 2011. No requests for administrative hearings or requests for extensions of time to file a petition for administrative hearing were received.

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.



Florida Department of Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Rick Scott
Governor

Jennifer Carroll
Lt. Governor

Herschel T. Vinyard Jr.
Secretary

PERMITTEE

CEMEX Construction Materials Florida, LLC
10311 Cement Plant Road
Brooksville, Florida

Authorized Representative:
Jim Daniel, Cement Plant Manager

Air Permit No. 0530021-031-AC
Permit Expires: May 31, 2013
Brooksville South Cement Plant
Temporary Trials of Alternative Fuels
Final Permit

PROJECT

CEMEX Construction Materials Florida, LLC operates an existing Portland cement manufacturing plant, which is categorized under Standard Industrial Classification Code No. 3241. The Brooksville South Cement Plant and Central Power and Lime (CPL) Power Plant are collocated in Hernando County at 10311 Cement Plant Road in Brooksville, Florida. The UTM coordinates of the existing facility are Zone 17, 360.0 kilometers East, and 3162.5 kilometers North.

This is the final air construction permit, which authorizes short-term temporary trials to co-fire coal with each of the following alternative fuel materials in the existing cement kiln (Kiln 2) to gather operational and emissions data: non-chlorinated agricultural plastics, tire-derived fuel including tire fluff, reject roofing shingles, clean woody biomass, agricultural fibrous organic byproducts, pre-consumer reject paper, carpet-derived fuel and on-specification used oil generated off-site. This final permit is organized into the following sections: Section 1 (General Information); Section 2 (Administrative Requirements); Section 3 (Emissions Unit Specific Conditions); and Section 4 (Appendices). Because of the technical nature of the project, the permit contains numerous acronyms and abbreviations, which are defined in Appendix A of Section 4 of this permit.

STATEMENT OF BASIS

This air pollution construction permit is issued under the provisions of: Chapter 403 of the Florida Statutes (F.S.) and Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297 of the Florida Administrative Code (F.A.C.). The permittee is authorized to conduct the proposed work in accordance with the conditions of this permit. This project is subject to the general preconstruction review requirements in Rule 62-212.300, F.A.C. and is not subject to the preconstruction review requirements for major stationary sources in Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality.

Upon issuance of this final permit, any party to this order has the right to seek judicial review of it under Section 120.68 of the Florida Statutes by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel (Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000) and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within 30 days after this order is filed with the clerk of the Department.

Executed in Tallahassee, Florida

Michael P. Halpin, P.E., Director
Division of Air Resource Management

(Date)

FINAL PERMIT

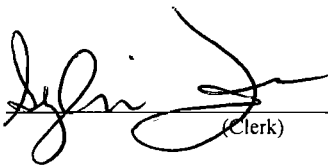
CERTIFICATE OF SERVICE

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 5/23/11 to the persons listed below.

- cc: Mr. Jim Daniel, CEMEX (jdaniel@cemexusa.com)
- Mr. George Townsend, CEMEX (gtownsend@cemexusa.com)
- Mr. Max Lee, Ph.D., P.E., Koogler and Associates, Inc. (mlee@kooglerassociates.com)
- Mr. John Koogler, Ph.D., P.E., Koogler and Associates, Inc. (jkoogler@kooglerassociates.com)
- Ms. Cindy Zang-Torres, DEP Southwest District Office (cindy.zhang-torres@dep.state.fl.us)
- 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. Vickie Gibson, DEP BAR Reading File (victoria.gibson@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)

5/23/11
(Date)

SECTION 1. GENERAL INFORMATION

FACILITY DESCRIPTION

The existing facility consists of a Portland cement manufacturing plant, the associated quarry, and raw material, cement handling operations, a 150 MW power plant and a coal yard. Portland Cement Line 1 includes an in-line kiln/raw mill, clinker cooler and associated process equipment. This line shares a common baghouse. Waste heat from the kiln is used to provide heat to the raw mill and the kiln preheater, which is used to drive off moisture from the materials used for making clinker. All of the materials handling activities are controlled by fabric filter baghouse control systems, except for the Clinker Receiving/Handling System and the coal yard activities. For the Clinker Receiving/Handling System, the fugitive particulate matter emissions generated from the transfer of clinker from the receiving hopper to the belt conveyor are controlled using a dust suppression system.

Portland Cement Line 2 includes a raw mill system, a dry process preheater/precalciner kiln system, clinker handling system, finish grinding operations, two cement loadout silos, and coal handling and grinding operations. Nitrogen oxides (NO_x) emissions are controlled by the use of Selective Non-catalytic Reduction (SNCR) technology. Sulfur dioxide (SO₂) emissions are controlled by use of low sulfur raw materials and inherent scrubbing by finely divided lime in the calciner and limestone in the raw mill. Carbon monoxide (CO) and volatile organic compound (VOC) emissions are controlled by promoting complete combustion in the kiln and calciner and minimizing carbon and oily content of raw materials. Particulate matter emissions from the pyroprocessing system and the clinker cooler are controlled by large fabric filter baghouses. Mercury emissions are controlled by material balance with a minimum of quarterly analysis of raw material samples and making and maintaining records of monthly and rolling 12-month mercury throughput. All of the materials handling activities' particulate matter emissions are controlled by fabric filters. Water sprays or chemical wetting agents and stabilizers will be used at the coal receiving area, the coal storage area, and the coal transfer system to control fugitive particulate matter emissions and minimize visible emissions. Continuous monitors are operated for CO, NO_x, SO₂, total hydrocarbons (THC as a measure of VOC) and opacity.

Portland Cement Line 2 has a capacity of 206.3 tons per hour of material fed (dry basis) to the preheater, and 125 tons per hour of clinker production. Daily and annual rates are 1,686,300 tons per year (4,620 tons/day, 24-hour average) of material fed to the preheater (dry basis), 1,022,000 tons per year (2,800 tons/day, 24-hour average) of clinker production, and 1,301,138 tons per year (5,760 tons/day) of cement production. Fuels allowed to be used in the pyroprocessing system are natural gas, distillate fuel oil, on-specification used oil, coal, petroleum coke, propane, fly ash and tire derived fuels. Line 2 also includes a coal processing operation that crushes coal and petroleum coke and has an annual processing capacity of 165,000 tons of coal and petroleum coke.

PROPOSED PROJECT

This is the final air construction permit, which authorizes temporary short-term trials to co-fire coal with each of the following alternative fuel materials in the existing cement kiln to gather operational and emissions data: non-chlorinated agricultural plastics, tire-derived fuel including tire fluff, reject roofing shingles, clean woody biomass, agricultural fibrous organic byproducts, pre-consumer reject paper, carpet-derived fuel and on-specification (on-spec) used fuel oil generated off-site. This authorization is only for the temporary trials as conditioned by the permit to determine the operational viability of each fuel, the impacts on emissions and the effect on cement quality. The information will be used to determine whether a material is suitable as alternative fuel for co-firing with coal in the cement kiln, which may require additional testing. To obtain permanent authorization for any of the alternative fuel materials, the permittee must submit an additional application and obtain an air construction permit. The information gathered during the trial burn period may be used to support such an application or a project for a longer trial.

SECTION 1. GENERAL INFORMATION

This project will affect the following existing permitted emissions unit.

Facility ID No. 0530021	
ID No.	Emission Unit Description
044	Cement Line 2: Kiln 2, In-line Raw Mill, Pre-Heater, Pre-Calciner and Clinker Cooler

FACILITY REGULATORY CLASSIFICATION

- The facility is a major source of hazardous air pollutants (HAP).
- The facility does not operate units subject to the acid rain provisions of the Clean Air Act.
- The facility is a Title V major source of air pollution in accordance with Chapter 213, F.A.C.
- The facility is a PSD major stationary source in accordance with Rule 62-212.400, F.A.C.

SECTION 2. ADMINISTRATIVE REQUIREMENTS

1. Permitting Authority: All documents related to PSD applications for permits to construct or modify emissions units shall be submitted to the Bureau of Air Regulation of the Florida Department of Environmental Protection (DEP) at 2600 Blair Stone Road (MS #5505), Tallahassee, Florida 32399-2400. All documents related to applications for permits to construct minor sources of air pollution or to operate the facility shall be submitted to the Air Resource Section of the Department's Southwest District Office at 13051 North Telecom Parkway, Temple Terrace, FL 33637-0926.
2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Air Resources Section of the Department's Southwest District Office at 13051 North Telecom Parkway, Temple Terrace, FL 33637-0926.
3. Appendices: The following Appendices are attached as a part of this permit: Appendix A (Citation Formats and Glossary of Common Terms); Appendix B (General Conditions); Appendix C (Common Conditions); Appendix D (On-Specification Used Oil Requirements); and Appendix E (Criteria for Material Suppliers).
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: No new emissions unit shall be constructed and no existing emissions unit shall be modified without obtaining an air construction permit from the Department. Such permit shall be obtained prior to beginning construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]
7. 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 3. EMISSIONS UNIT SPECIFIC CONDITIONS

A. Kiln 2 System – Short -Term Trial of Miscellaneous Alternative Fuel Materials

This section of the permit addresses the following emissions unit.

ID	Emission Unit Description
044	Cement Line 2: Kiln 2, In-line Raw Mill, Pre-Heater, Pre-Calciner and Clinker Cooler

COMPLIANCE WITH EXISTING PERMIT CONDITIONS

1. Existing Permits: This permit supplements all existing valid air permits. 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. Temporary Equipment: The permittee is authorized to temporarily install and operate the following equipment for the trial: a Schenk feeder system or equivalent to measure and dose alternative fuel materials through the injection feed lines; an electric or diesel-powered shredder (approximately 630 horsepower (hp)) and screen (100 hp); a hopper; a conveyor; ductwork; and other miscellaneous equipment to unload, store and handle the alternative fuel materials. If not electrically powered, only diesel fuel shall be fired in the engines powering the equipment. The feeder system shall be integrated with the operation and monitoring system currently in use in the operator control room and tied into the existing Data Retrieval System. There shall be a visible display of the alternative material feed rate at the feeder system as well as in the operator control room. The alternative material feed rate shall be recorded along with the other fuel and material feed rates. [Application No. 0530021-031-AC and Rule 62-4.070(3), F.A.C.]

PERFORMANCE RESTRICTIONS

3. Authorization: The permittee is authorized to conduct short-term operational trials for co-firing the following alternative fuel materials with coal.
 - a. *Non-Chlorinated Agricultural Plastics*: This material consists of non-chlorinated, polyethylene plastic used primarily in agricultural and silvicultural operations to prevent weed growth, control soil erosion and moisture exposure. No more than 3,000 tons shall be fired in the kiln.
 - b. *Tires*: Tire-derived fuel (TDF) consists of shredded used tires, which may have steel belt material and tire fluff. Tire fluff consists of the shredded materials from the crumb of tires with no metal. No more than 4,500 tons shall be fired in the kiln.
 - c. *Manufacturer Reject Roofing Shingles*: This material shall consist of manufacturer reject shingles that were never installed and which the manufacturer certifies as being "asbestos free". The incombustible grit material shall be removed from the shingles prior to delivery. No more than 10,000 tons shall be fired in the kiln.
 - d. *Clean Woody Biomass*: This material will include 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. This material excludes copper-chromium-arsenic (CCA)-treated wood, creosote-treated wood, construction and demolition (C&D) debris, plywood, particle board, medium density fiberboard, oriented strand board, laminated beams, finger-jointed trim and sheet goods. No more than 10,000 tons shall be fired in the kiln.
 - e. *Agricultural Organic Fibrous Byproducts*: This material includes peanut hulls, rice hulls, corn husks, citrus peels, cotton gin byproducts, animal bedding and other similar types of materials that may be tried with prior written approval of the Department. Agricultural organic fibrous byproducts may be blended and fired together. No more than 5,000 tons of agricultural byproducts will be stored on site at one time. No more than 20,000 total tons of agricultural organic fibrous byproducts shall be fired in the kiln.

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

A. Kiln 2 System – Short -Term Trial of Miscellaneous Alternative Fuel Materials

- f. *Pre-Consumer Paper*: This material consists of pre-consumer: 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; and other miscellaneous coated papers. This group of materials also includes 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. Pre-consumer paper may be blended and fired together. No more than 5,000 tons shall be fired in the kiln.
- g. *Carpet-Derived Fuel*: This material consists of shredded new, reject or used carpet. No more than 6,500 tons shall be fired in the kiln.
- h. *Alternative Fuel Mix*: Subject to the individual limits on material quantities, alternative fuels for which all required sampling/analysis and stack tests (if necessary) have been conducted and satisfactory results obtained may be blended and fired as a separate alternative fuel trial. The blend ratio may be adjusted throughout the trial. This excludes on-spec used oil.
- i. *On-Specification (On-Spec) Used Oil Generated Off-Site*: This material is on-spec used oil that has been generated off-site. No more than 111,111 gallons (approximately 400 tons) shall be fired in the kiln. The plant is currently authorized to fire on-spec used oil that has been generated on site.
- j. *Expiration and Revocation*: Authorization to fire each alternative fuel material expires with this permit, at the end of 90 operating days of firing the alternative fuel or when the permitted amount of material has been fired. The Department may require the trial of an alternative fuel material to stop if:
 - a) The permittee accepts alternative fuel material that does not meet the acceptance criteria based on analytical results provided by the material suppliers.
 - b) The analytical results of samples show elevated levels of chlorine, fluorine or metals.
 - c) The firing of an alternative fuel material causes frequent upsets to kiln operation resulting in non-steady state operation; or
 - d) The pyroprocessing kiln is unable to comply with the emissions standards in the Title V air operation permit.

Due to extenuating circumstances, the permittee may request that the Bureau of Air Regulation extend the allowable operating days to finish firing the permitted amount of alternative fuel.

[Application No. 0530021-031-AC and Rule 62-4.070(3), F.A.C.]

- 4. **Material Suppliers**: The permittee shall provide each material supplier with a copy of this air construction permit including the Appendix E (Criteria for Material Suppliers). [Rule 62-4.070(3), F.A.C.]
- 5. **Accepting Shipments of Alternative Fuels**:
 - a. The permittee shall obtain the analytical results of an alternative fuel material prior to, or along with, the first delivery of the alternative fuel material. The permittee shall record the amount and type of each material received.
 - b. The permittee shall receive alternative fuel materials in covered trucks.
 - c. The alternative fuel materials shall be visibly marked and stored in separate piles under cover on top of a paved or compacted clay surface. Optionally, the materials may be stored in enclosed trailers.
 - d. Unless otherwise authorized, alternative fuel materials delivered to the site shall be burned in the kiln during the trial or removed from the site within 30 days of completing the trial.

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

A. Kiln 2 System – Short -Term Trial of Miscellaneous Alternative Fuel Materials

e. For acceptance of on-specification used oil, a certified fuel analysis indicating the oil meets the on-specification requirements (see Appendix D) in 40 CFR 279 shall accompany each delivery.

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

6. **Fugitive Dust:** To prevent fugitive dust caused by any alternative fuel materials from leaving the property, the plant shall apply water if necessary; otherwise, the material shall be kept dry to facilitate burning. [Rule 62-4.070(3), F.A.C.]
7. **Operation:** Alternative fuel materials shall only be fired when the kiln has achieved stable operation, temperatures and production. Alternative fuel materials shall not be fired during startup, shutdown, malfunction or other non-steady state operation. [Rule 62-4.070(3), F.A.C.]
8. **Capacity:** During each designated trial, an alternative fuel material may be co-fired with coal in the existing cement kiln at the following approximate maximum rates:

Material	Estimated Maximum Firing Rates (tons/hour)
Non-Chlorinated Agricultural Plastics	4
Tire Derived Fuel and Tire Fluff	4.5
Reject Roofing Shingles	12
Clean Woody Biomass	14
Agricultural Byproducts	25
Paper	11
Carpet Derived Fuel	7.5
On-Spec Used Oil Generated Off-Site	3.0
Alternative Fuel Mix	Prorated based on heating value

{Permitting Note: Since the feeder system is limited by volumetric throughput, the maximum mass feed rates will also be variable based on the material densities. Each trial will be used to determine the maximum sustainable mass feed rate of each alternative fuel material.} [Application No. 0530021-031-AC and Rule 62-210.200(PTE), F.A.C.]

MONITORING REQUIREMENTS

9. **Sampling/Analyses:** On the first day that an alternative fuel material is fired, the permittee shall take a grab sample at least once every four hours of as-fired material (approximately one gallon) before transfer to the feed bin of the feeder system. At the end of each day, the grab samples shall be thoroughly mixed and a composite sample made (approximately 2 lb). The permittee shall use this same procedure to obtain a representative composite sample for each day that stack testing is conducted. At a minimum, the permittee shall use this procedure to obtain at least three, separate representative composite samples (which may include the first day sample and any obtained during stack tests) that were taken at least three operating days apart. Each representative composite sample shall be analyzed for the following: heating value, moisture, density, volatiles, ash, sulfur, chlorine, fluorine and mercury. Samples of tire-derived fuel, reject roofing shingles and clean woody biomass shall also be analyzed for the following metals: arsenic, cadmium, chromium, copper and lead. The composite samples for non-chlorinated agricultural plastics shall also be analyzed for pesticides. [Application No. 0530021-031-AC and Rule 62-4.070(3), F.A.C.]
10. **Analytical Methods:** The permittee shall use the following analytical methods to determine the composition

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

A. Kiln 2 System – Short -Term Trial of Miscellaneous Alternative Fuel Materials

of the alternative fuel materials.

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 ASTM D5468 - 02(2007) Standard Test Method for Gross Calorific and Ash Value of Waste Materials
Chlorine, Fluorine and Bromine	EPA SW-846 or EPA Method 9056
Mercury	EPA 7470A/7471A
Other Metals	EPA SW-846 or EPA Method 6010B
Pesticides	Sampling Methods: SW 0010/8270 or equivalent Analytical Methods: EPA SW-846 3500 or EPA 3550/8150 or equivalent method. EPA Method SW-846 identifies using analytical method 8081.

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

11. **Operations and Emissions:** During the trial period, the permittee shall continue to monitor: CO, NO_x, SO₂, and total hydrocarbons (THC) emissions with the existing certified CEMS; opacity with the existing certified COMS; and the fuel feed rates, kiln feed rates, clinker production rate and baghouse inlet temperature with the existing continuous monitoring systems. Mercury emissions shall be determined by material balance. [Application No. 0530021-031-AC and Rule 62-4.070(3), F.A.C.]
12. **Upsets:** When an upset condition causes the plant to stop firing an alternative fuel that results in non-steady state operation, the permittee shall record each incident and identify the cause of the upset as well as the corrective action taken. [Rule 62-4.070(3), F.A.C.]
13. **Process Monitoring:** For the trial, the plant will monitor: the sampling and analysis procedures used; the analytical results of the alternative fuel materials, the fuel feed rates, the kiln feed rates, the clinker production rates, pre-calciner temperature and the baghouse inlet temperature. [Application No. 0530021-031-AC and Rule 62-4.070(3), F.A.C.]

TESTING REQUIREMENTS

14. **Compliance Tests:** The permittee shall conduct the following stack tests to determine compliance with the emissions standards as well as the emission rates of hydrochloric acid (HCl) and metals while operating the cement kiln at permitted capacity and firing the maximum sustainable feed rate of the alternative fuel material. The feed rate achieved during the stack tests will be used to establish the maximum feed rate for any subsequent request to permanently fire the alternative fuel material.
 - a. **Dioxins/Furans Stack Tests:** In accordance with EPA Method 23, the permittee shall conduct a stack test to determine compliance with the dioxins/furans emissions standard while co-firing coal with each alternative fuel having a chlorine content greater than 0.2% by weight based upon the initial chlorine content sampling by the supplier. The stack test shall consist of at least three, 3-hour test runs, and the sample volume for each run shall be at least 90 dscf. If alternative fuels are only fired with the raw mill up, then the test may be conducted only with the raw mill up; otherwise separate tests shall be conducted with the raw mill up and the raw mill down.

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

A. Kiln 2 System – Short -Term Trial of Miscellaneous Alternative Fuel Materials

- b. *HCl Stack Tests*: In accordance with EPA Methods 26, 26A or 321, the permittee shall conduct a stack test determine the HCl emissions rate while co-firing coal with each alternative fuel having a chlorine content greater than 0.2% by weight based upon the initial chlorine content sampling by the supplier. The stack test shall consist of at least three, 1-hour test runs.
- c. *Pesticides*: If analytical data detects pesticides in non-chlorinated agricultural plastics, the permittee shall conduct a stack test to determine the presence of pesticides in the exhaust while co-firing coal with non-chlorinated agricultural plastics. Tests shall be conducted in accordance with Methods SW 0010/8270 (sampling method) and EPA SW-846 3500 or EPA 3550/8150 (analytical methods) for Semi-Volatile Organics (including pesticides). EPA Method SW-846 identifies using analytical method 8081. Other equivalent methods may be used with prior written approval of the Bureau of Air Regulation. The stack tests shall consist of at least three, 1-hour test runs. During each test run, the permittee shall increase the sampling frequency of non-chlorinated agricultural plastics to one representative grab sample (approximately 1 gallon) every 15 minutes. The four grab samples collected during each test run shall be thoroughly mixed and a composite sample made (approximately 1 lb). Each composite sample representing the test run shall be analyzed for the following: heating value, moisture, density, sulfur, chlorine, fluorine and pesticides.

EPA Methods 1 – 4 shall be used as necessary to support the other test methods. [Rule 62-4.070(3), F.A.C.]

15. Test Requirements: Tests shall be conducted in accordance with the applicable requirements specified in Appendix C (Common Conditions) of this permit and the current Title V air operation permit. When in conflict, the permittee shall follow the requirements of the current Title V air operation permit. [Rule 62-297.310(7)(a)9, F.A.C.]

NOTIFICATIONS, RECORDS AND REPORTS

16. Notifications: Written notifications may be made by email, fax transmittal or letter.
 - a. *Initial Delivery*: Within one day, the permittee shall notify the Compliance Authority of receiving the first shipment of each alternative fuel material. [Rule 62-4.070(3), F.A.C.]
 - b. *Test Notifications*: The permittee shall notify the Department in writing, 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 permittee. The Compliance Authority may waive the 15-day notice to facilitate testing. [Rule 62-297.310(7), F.A.C.]
17. Records: In addition to plant operation and production data, the permittee shall maintain records of the monitoring and emissions data required by the permit, including, but not limited to: the sampling and analysis procedures used; the analytical results of each alternative fuel materials; each fuel feed rate; the kiln production and process data; the emissions monitoring data; the baghouse inlet temperature; times, and any specific problems that occurred during the trial and the cause of the problem. [Rule 62-4.070(3), F.A.C.]
18. Trial Burn Summary Report: Within 90 days of completing each temporary trial of alternative fuel material, the permittee shall submit a report to the Bureau of Air Regulation and the Compliance Authority summarizing: the sampling and analysis procedures used; the analytical results of the alternative fuel materials; a comparison of the heating value of each material determined by fuel analyses with that determined by the amount of coal displaced; the kiln production and process data; pre-calciner temperature; the emissions monitoring data (separated and compared for raw mill up and down conditions) in comparison to historical coal firing emissions; the baghouse inlet temperature; a conclusion as to the feasibility and practicality of firing the material as an alternative fuel; an estimate of the fuel costs that could be avoided by firing the material; the appropriate QA/QC procedures used to produce a high-quality alternative fuel (i.e.,

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A. Kiln 2 System – Short -Term Trial of Miscellaneous Alternative Fuel Materials

low in contaminants, high in heating value, free of scrap metals and properly sized); any specific problems that occurred during the trial and the cause of the problem; and problems with unloading storing or handling the material; problems with the material size and any re-processing conducted on site; recommendations to improve handling, storage and firing the alternative fuel material; and an assessment of the suitability of the material as a permanent alternative fuel for the plant. The report shall include a statistical analysis of the analytical data for the alternative fuel material and the emissions monitoring data. The report shall also include the comparison of the contaminants in and emissions of the alternative fuel material with the contaminants in and emissions from traditional fuels to meet the legitimacy criteria in 40 CFR 241.3(d)(1). [Rule 62-4.070(3), F.A.C.]

SECTION 4. APPENDICES

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- Appendix B. General Conditions
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- Appendix D. On-Specification Used Oil Requirements
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SECTION 4. APPENDIX A
Citation Formats and Glossary of Common Terms

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

CAA: Clean Air Act	NESHAP: National Emissions Standards for Hazardous Air Pollutants
CMS: continuous monitoring system	NO_x: nitrogen oxides
CO: carbon monoxide	NSPS: New Source Performance Standards
CO₂: carbon dioxide	O&M: operation and maintenance
COMS: continuous opacity monitoring system	O₂: oxygen
DARM: Division of Air Resource Management	Pb: lead
DEP: Department of Environmental Protection	PM: particulate matter
Department: Department of Environmental Protection	PM₁₀: particulate matter with a mean aerodynamic diameter of 10 microns or less
dscf: dry standard cubic feet	ppm: parts per million
dscfm: dry standard cubic feet per minute	ppmv: parts per million by volume
EPA: Environmental Protection Agency	ppmvd: parts per million by volume, dry basis
ESP: electrostatic precipitator (control system for reducing particulate matter)	QA: quality assurance
EU: emissions unit	QC: quality control
F: fluoride	PSD: prevention of significant deterioration
F.A.C.: Florida Administrative Code	psi: pounds per square inch
F.A.W.: Florida Administrative Weekly	PTE: potential to emit
F.D.: forced draft	RACT: reasonably available control technology
F.S.: Florida Statutes	RATA: relative accuracy test audit
FGD: flue gas desulfurization	RBLC: EPA's RACT/BACT/LAER Clearinghouse
FGR: flue gas recirculation	SAM: sulfuric acid mist
ft²: square feet	scf: standard cubic feet
ft³: cubic feet	scfm: standard cubic feet per minute
gpm: gallons per minute	SIC: standard industrial classification code
gr: grains	SIP: State Implementation Plan
HAP: hazardous air pollutant	SNCR: selective non-catalytic reduction (control system used for reducing emissions of nitrogen oxides)
Hg: mercury	SO₂: sulfur dioxide
I.D.: induced draft	TPD: tons/day
ID: identification	TPH: tons per hour
kPa: kilopascals	TPY: tons per year
lb: pound	TRS: total reduced sulfur
MACT: maximum achievable technology	UTM: Universal Transverse Mercator coordinate system
MMBtu: million British thermal units	VE: visible emissions
MSDS: material safety data sheets	VOC: volatile organic compounds
MW: megawatt	

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.

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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 (no new determinations);
 - b. Determination of Prevention of Significant Deterioration (no new determinations); and
 - c. Compliance with New Source Performance Standards (no new standards).
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 measurements;
 - (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 in the permit or other valid permits, 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 62-210.650, F.A.C.]
3. **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.]
4. **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.]
5. **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.]
6. **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.]
7. **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.]
8. **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.]

COMPLIANCE TESTING REQUIREMENTS

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

9. **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.]
10. **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

SECTION 4. APPENDIX C

Common Conditions

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.]

11. 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.]

12. 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 60 minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and 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.
- 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%

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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.]

13. 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.]

14. 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.

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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.

- (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

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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.]

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- 15. Test Notifications: 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. [Rule 62-297.310(7), F.A.C.]
- 16. 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.]
- 17. 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 62-210.200, 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 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 62210.370(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)*.

SECTION 4. APPENDIX C

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- (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
 - 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 sitespecific 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.

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- 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.

[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-

SECTION 4. APPENDIX C

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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.]

18. 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.
- 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

SECTION 4. APPENDIX C

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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.]

SECTION 4. APPENDIX D
On-Specification Used Oil Requirements

The permittee shall comply with the following requirements for on-specification used oil.

1. **Specifications for Used Oil:** Only “on-specification” used oil containing a PCB concentration of less than 50 ppm shall be fired at this facility.
 - a. “On-specification” used oil is defined as used oil that meets the specifications of 40 CFR 279 (Standards for the Management of Used Oil) as listed below.

Constituent/Property	Allowable Level
Arsenic	5 ppm, maximum
Cadmium	2 ppm, maximum
Chromium	10 ppm, maximum
Lead	100 ppm, maximum
Total Halogens	1000 ppm, maximum
Flash point	100° F, minimum

Used oil which fails to comply with any of these specification levels is considered “off-specification” used oil. The firing of off-specification used oil at this facility is prohibited.

- b. Used oil containing a PCB concentration of 50 ppm or more shall not be fired at this facility and shall not be blended to meet this requirement.
- c. On-specification used oil with a PCB concentration of 2 ppm to less than 50 ppm shall be fired only at normal unit operating temperatures and shall not be fired during periods of startup or shutdown.
- d. On-specification used oil with a PCB concentration of 2 ppm or less may be fired at any time.
- e. On-specification used oil shall meet the maximum sulfur content specified in the permit.

[40 CFR 279.61]

2. **Used Oil Certifications:** For each delivery of used oil, the owner or operator shall receive from the marketer a certification that the used oil meets the specifications for “on-specification” used oil and that it contains a PCB concentration of less than 50 ppm. This certification shall also describe the basis for the certification, such as analytical results. Used oil to be fired for energy recovery is presumed to contain quantifiable levels (2 ppm) of PCB unless the marketer obtains analyses (testing) or other information that the used oil fuel does not contain quantifiable levels of PCBs. Note that a claim that used oil does not contain quantifiable levels of PCBs (<2 ppm) must be documented by analysis or other information. The first person making the claim that the used oil does not contain PCBs is responsible for furnishing the documentation. The documentation can be tests, personal or special knowledge of the source and composition of the used oil, or a certification from the person generating the used oil claiming that the used oil contains no detectable PCBs. [40 CFR 761.20]
3. **Notification to Marketers:** Before accepting from each marketer the first shipment of on-specification used oil with a PCB concentration of 2 to less than 50 ppm, the owner or operator shall provide each marketer with a one-time written and signed notice certifying that the owner or operator will fire the used oil in a qualified combustion device and must identify the class of combustion device. The notice must state that EPA or a RCRA-delegated state agency has been given a description of the used oil management activities at the facility and that an industrial boiler or furnace will be used to fire the used oil with a PCB concentration of 2 to 49 ppm. The description of the used oil management activities may be submitted to the

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On-Specification Used Oil Requirements

Administrator, Hazardous Waste Regulation Section, Florida Department of Environmental Protection, 2600 Blair Stone Road, Tallahassee, FL 32399-2400. [40 CFR 761.20(e)]

4. **Sampling and Analysis:**
- a. If the owner or operator does not receive certification from the marketer as described above, the owner or operator shall sample and analyze each batch of used oil to be fired for the following parameters: arsenic, cadmium, chromium, lead, total halogens, flash point, PCBs, and percent sulfur content by weight, ash, and BTU value (BTU per gallon).
 - b. If the owner or operator receives the required certification from the marketer, the owner or operator shall sample at least one delivery of used oil received each calendar quarter and analyze the sample for arsenic, cadmium, chromium, lead, total halogens, flash point, PCBs, and percent sulfur content by weight, ash, and BTU value (BTU per gallon).
 - c. Sampling and analysis shall be performed using approved methods specified in latest edition of EPA Publication SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods.
 - d. If the analytical results show that the used oil does not meet the specifications for on-specification used oil, or that it contains a PCB concentration of 50 ppm or greater, the owner or operator shall immediately cease firing the used oil. The owner or operator shall also immediately notify the appropriate Compliance Authority of the analytical results and indicate the proposed means of disposal of the used oil.

[Rule 62-4.070(3), F.A.C.; 40 CFR Parts 279 and 761]

5. **Used Oil Recordkeeping Required:** The owner or operator shall obtain, make, and keep the following records related to the use of used oil in a form suitable for inspection at the facility by the Compliance Authority:
- a. Within 15 days following each calendar month, record the gallons of on-specification used oil received and fired during the previous calendar month and the previous 12 calendar months.
 - b. The name and address of all marketers delivering used oil to the facility.
 - c. Copies of the marketer certifications and any supporting information.
 - d. If claimed, documentation that the used oil contains less than 2 ppm of PCBs, including the name and address of the person making the claim.
 - e. Results of any sampling/analyses conducted.
 - f. A copy of the notice to EPA and a copy of the one-time written notice provided to each marketer.

[Rule 62-4.070(3), F.A.C.; 40 CFR 279.61; and, 40 CFR 761.20(e)]

6. **Used Oil Reporting Required:** Within 30 days following each calendar quarter, the owner or operator shall submit to the appropriate Compliance Authority, the analytical results and the total amount of on-specification used oil received and fired during the quarter. [Rule 62-4.070(3), F.A.C.; 40 CFR Parts 279 and 761]

SECTION 4 APPENDIX E.
Criteria for Material Suppliers

The permittee shall provide each supplier with a copy of this air construction permit including the following criteria for material suppliers.

General Criteria

1. Material suppliers must use best efforts and good housekeeping practices to keep unwanted substances and incombustible materials from mixing with the alternative fuel materials.
2. All alternative fuel materials must be properly shredded and sized before being delivered to the Brooksville South Cement Plant. Each material supplier must develop QA/QC procedures to exclude foreign materials (e.g., painted material, treated material, metals, soils and incombustibles) from the alternative fuel materials.
3. Prior to Initial Delivery:
 - a. For each alternative fuel material, the material supplier must take at least eight random grab samples (approximately 1 lb). The eight grab samples must be combined and thoroughly mixed. A composite sample (approximately 2 lb) will be made from mixed grab samples. The composite sample will be split into two duplicates (approximately 1 lb each). Each sample will be labeled with the date, time, and sampling staff name. The source material will be segregated from other materials until the analytical results are received.
 - b. Each composite sample must be submitted to an appropriate testing lab. The duplicate sample will be retained by the material supplier, CEMEX or an independent party in case a second analysis is needed. The testing lab will analyze each composite sample for: heating value, moisture, density, volatiles, ash, sulfur, chlorine, fluorine and mercury. Samples of tire-derived fuel, reject roofing shingles and clean woody biomass shall also be analyzed for the following metals: arsenic, cadmium, chromium, copper and lead. The composite samples for non-chlorinated agricultural plastics shall also be analyzed for pesticides.
 - c. The material supplier or CEMEX must obtain the representative analytical results from the lab before the first delivery of an alternative fuel material to the Brooksville South Cement Plant. If the material supplier obtains the results, the supplier must provide a copy of the analytical results to the Brooksville South Cement Plant prior to, or along with, the first delivery of an alternative fuel material.
4. Each alternative fuel material shall be transported in covered trucks.

Agricultural Plastics

This material must consist of non-chlorinated, polyethylene plastic used primarily in agricultural and silvicultural operations to prevent weed growth, control soil erosion and moisture exposure. Note that the Brooksville South Cement Plant cannot accept more than a total of 3,000 tons of this material. The composite samples must also be analyzed for pesticides.

Tire-Derived Fuel (TDF) and Tire Fluff (TDF)

Tire-derived fuel consists of shredded used tires, which may have steel belt material and tire fluff. Tire fluff consists of the shredded materials from the crumb of tires with no metal. No more than 4,500 tons shall be fired in the kiln. Note that the Brooksville South Cement Plant cannot accept more than a total of 4,500 tons of this material.

Manufacturer Reject Roofing Shingles

This material shall consist of never before used reject shingles. The incombustible grit material shall be removed from the shingles. The material supplier must obtain a copy of the manufacturer certification that shows the reject shingles are "asbestos free" and present a copy of the certification to the Brooksville South Cement Plant prior to, or along with any shipment. Note that the Brooksville South Cement Plant cannot accept more than a total of 10,000 tons of this material.

Clean Woody Biomass

This material may include 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

SECTION 4 APPENDIX E.
Criteria for Material Suppliers

wood or other forest residues. This material excludes copper-chromium-arsenic (CCA)-treated wood, creosote-treated wood, construction and demolition (C&D) debris, plywood, particle board, medium density fiberboard, oriented strand board, laminated beams, finger-jointed trim and sheet goods. Note that the Brooksville South Cement Plant cannot accept more than a total of 10,000 tons of this material.

Agricultural Organic Fibrous Byproducts

This material includes peanut hulls, rice hulls, corn husks, citrus peels, cotton gin byproducts, animal bedding, etc. Other similar types of materials of organic fibrous byproducts may be tried with prior written approval of the Department. Note that the Brooksville South Cement Plant cannot accept more than 5,000 tons of any single type of this material and no more than a total of 20,000 tons of all agricultural organic fibrous byproducts. Also, be aware that the Brooksville South Cement Plant may not store more than 5,000 tons of this material on site at any given time.

Pre-Consumer Paper

This material must consist of pre-consumer paper 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; and other miscellaneous coated papers. This group of materials also includes 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. Note that the Brooksville South Cement Plant cannot accept more than a total of 5,000 tons of this material.

Carpet-Derived Fuel

This material consists of shredded new, reject or used carpet. Note that the Brooksville South Cement Plant cannot accept more than a total of 6,500 tons of this material.

On-Specification (On-Spec) Used Oil Generated Off-Site

This material consists of on-spec used oil generated off-site. Note that the Brooksville South Cement Plant cannot accept more than a total of 111,111 gallons (approximately 400 tons) of this material. For acceptance of on-specification used oil, a certified fuel analysis indicating the oil meets the on-specification requirements (see Appendix D) in 40 CFR 279 shall accompany each delivery.

“On-specification” used oil is defined as used oil that meets the specifications of 40 CFR 279 (Standards for the Management of Used Oil) as listed below.

Constituent/Property	Allowable Level
Arsenic	5 ppm, maximum
Cadmium	2 ppm, maximum
Chromium	10 ppm, maximum
Lead	100 ppm, maximum
Total Halogens	1000 ppm, maximum
Flash point	100° F, minimum

Used oil which fails to comply with any of these specification levels is considered “off-specification” used oil. The firing of off-specification used oil at this facility is prohibited.

Livingston, Sylvia

From: Livingston, Sylvia
Sent: Monday, May 23, 2011 4:15 PM
To: 'jdaniel@cemexusa.com'
Cc: 'gtownsend@cemexusa.com'; 'mlee@kooglerassociates.com';
'jkoogler@kooglerassociates.com'; Zhang-Torres; 'forney.kathleen@epa.gov';
'abrams.heather@epa.gov'; 'oquendo.ana@epa.gov'; 'langston.david@epa.gov'; Gibson,
Victoria; DeVore, Christy; Koerner, Jeff; Walker, Elizabeth (AIR)
Subject: CEMEX - Brooksville South Cement and Power Plant; 0530021-031-AC
Attachments: 0530021-031-AC_Signatures.pdf

Dear Sir/ Madam:

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).

Click on the following link to access the documents:

http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf_permit_zip_files/0530021.031.AC.F_pdf.zip

Owner/Company Name: CEMEX CNSTRCTION MATERIALS FLORIDA, LLC

Facility Name: CEMEX BROOKSVILLE S. CEMENT and POWER PLANT

Project Number: 0530021-031-AC

Permit Status: FINAL

Permit Activity: CONSTRUCTION

Facility County: HERNANDO

Processor: Christy DeVore

The Bureau of Air Regulation 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://appprod.dep.state.fl.us/air/emission/apds/default.asp>.

Project documents that are 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, Bureau of Air Regulation at (850)717-9000.

Sylvia Livingston
Division of Air Resource Management (DARM)
Department of Environmental Protection
850/717-9043 (New Phone)
sylvia.livingston@dep.state.fl.us

Livingston, Sylvania

From: Daniel, James S. (Jim) [JDaniel@cemexusa.com]
Sent: Monday, May 23, 2011 6:00 PM
To: Livingston, Sylvania
Subject: RE: CEMEX - Brooksville South Cement and Power Plant; 0530021-031-AC

Received. Thanks.



Jim Daniel

Plant Manager ~ Brooksville South Cement - United States of America
Office: (352) 799-7881 Fax: (352) 799-6088 Mobile: (352) 584-3798
Address: 10311 Cement Plant Rd, Brooksville, FL 34601
e-Mail: jdaniel@cemexusa.com
www.cemexusa.com



Please consider the environment before printing this email.

From: Livingston, Sylvania [<mailto:Sylvia.Livingston@dep.state.fl.us>]
Sent: Monday, May 23, 2011 4:15 PM
To: Daniel, James S. (Jim)
Cc: Townsend, George; mlee@kooglerassociates.com; jkoogler@kooglerassociates.com; Zhang-Torres; forney.kathleen@epa.gov; abrams.heather@epa.gov; oguendo.ana@epa.gov; langston.david@epa.gov; Gibson, Victoria; DeVore, Christy; Koerner, Jeff; Walker, Elizabeth (AIR)
Subject: CEMEX - Brooksville South Cement and Power Plant; 0530021-031-AC

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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).

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http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf_permit_zip_files/0530021.031.AC.F_pdf.zip

Owner/Company Name: CEMEX CNSTRCTION MATERIALS FLORIDA, LLC

Facility Name: CEMEX BROOKSVILLE S. CEMENT and POWER PLANT

Project Number: 0530021-031-AC

Permit Status: FINAL

Permit Activity: CONSTRUCTION

Facility County: HERNANDO

Processor: Christy DeVore