FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
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PERMITTEE

Argos Cement, LLC
4000 Northwest County Road (CR) 235
Newberry, Florida 32669

Authorized Representative:
Chris Horner, Plant Manager

Air Permit No. 0010087-052-AC
PSD-FL 228E and PSD-FL-350C
Permit Expires: 06/01/2016
Minor Air Construction Permit

Argos Newberry Cement Plant
ESP Conversion Project

PROJECT

This is the final air construction permit, which authorizes the replacement of the existing electrostatic precipitators (ESP) with fabric filter, pulse-jet baghouses on the existing Clinker Handling Lines 1 and 2 clinker coolers. The proposed work will be conducted at the existing Argos Newberry Cement Plant, which is a Portland cement plant categorized under Standard Industrial Classification No. 3241. The existing facility is located in Alachua County at 4000 Northwest CR 235 in Newberry, Florida. The UTM coordinates are Zone 17, 346.4 kilometers (km) East and 3,285.7 km North.

This final permit is organized into the following sections: Section 1 (General Information); Section 2 (Administrative Requirements); Section 3 (Emissions Unit Specific Conditions); 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

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

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Air Permit package 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 the date indicated below to the following persons.

Mr. Chris Horner, Plant Manager, Argos: chorner@argos-us.com
Mr. Henry Gotsch, Environmental Manager, Argos: ogotsch@argos-us.com
Dr. Max Lee, Ph.D. P.E., Koogler: mlee@kooglerassociates.com
Mr. Richard Rachal, Administrator, NED: richard.rachal@dep.state.fl.us
Ms. Heather Ceron, US EPA Region 4: ceron.heather@epa.gov
Ms. Lynn Scearce, DEP OPC: lynn.scearce@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.

FACILITY DESCRIPTION

Argos Cement, LLC, Argos Newberry Cement Plant, is a Portland cement plant and associated quarry, and raw material and cement handling operations. The plant combines raw materials and utilizes preheater/precalciner kilns with in-line raw mill to produce clinker. The clinker is milled and combined with gypsum to produce Portland cement. The facility consists of the following major activities: raw material handling and storage; raw mill systems; kiln systems clinker handling; finish grinding operations; cement handling, loading, and bagging operations; and coal handling and grinding operations.

Clinker Handling Line 1 (EU 004) includes the clinker cooler discharge and breaker conveyor, two clinker silos and clinker cooler. Clinker Handling Line 2 (EU 011) includes the clinker cooler discharge, two silos, clinker transport and clinker cooler. To control emission of particulate matter (PM), the silos are equipped with baghouses and the clinker coolers are equipped with an ESP.

PROPOSED PROJECT

The applicant is requesting to remove the existing ESP's on Clinker Handling Lines 1 and 2 clinker coolers and install fabric filter baghouses to control emissions of PM. The new baghouses will further reduce emissions of PM on the clinker coolers to meet the upcoming NESHAP Subpart LLL of 40 CFR 63 emission limits for PM.

This project will modify the following emissions units.

EU No.	Emission Unit Description
004	Clinker Handling Line 1
011	Clinker Handling Line 2

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 62-213, F.A.C.
- The facility is a major stationary source in accordance with Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality.
- The facility does operate units subject to the New Source Performance Standards (NSPS) of 40 Code of Federal Regulations (CFR) 60.
- The facility does operate units subject to the National Emissions Standards for Hazardous Air Pollutants (NESHAP) of 40 CFR 63.

SECTION 2. ADMINISTRATIVE REQUIREMENTS

1. Permitting Authority: The permitting authority for this project is the Office of Permitting and Compliance in the Division of Air Resource Management of the Department of Environmental Protection (Department). The Office of Permitting and Compliance mailing address is 2600 Blairstone Road (MS #5505), Tallahassee, Florida 32399-2400.

2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Northeast District Office at: 8800 Baymeadows Way West, Suite 100, Jacksonville, Florida 32256-7590. Phone: 904/256-1700, Fax: 904/256-1588.

3. Appendices: The following Appendices are attached as a part of this permit: Appendix A (Citation Formats and Glossary of Common Terms); Appendix B (General Conditions); Appendix C (Common Conditions); and Appendix D (Common Testing Requirements).

4. Applicable Regulations, Forms and Application Procedures: Unless otherwise specified in this permit, the construction and operation of the subject emissions units shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of: Chapter 403, F.S.; and Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296 and 62-297, F.A.C. Issuance of this permit does not relieve the permittee from compliance with any applicable federal, state, or local permitting or regulations.

5. New or Additional Conditions: For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]

6. Modifications: The permittee shall notify the Compliance Authority upon commencement of construction. No new emissions unit shall be constructed and no existing emissions unit shall be modified without obtaining an air construction permit from the Department. Such permit shall be obtained prior to beginning construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]

7. Construction and Expiration. The expiration date shown on the first page of this permit provides time to complete the physical construction activities authorized by this permit, complete any necessary compliance testing, and obtain an operation permit. Notwithstanding this expiration date, all specific emissions limitations and operating requirements established by this permit shall remain in effect until the facility or emissions unit is permanently shut down or modified by a subsequent air construction permit. For good cause, the permittee may request that that a permit be extended. Pursuant to Rule 62-4.080(3), F.A.C., such a request shall be submitted to the Permitting Authority in writing before the permit expires. [Rules 62-4.070(4), 62-4.080 & 62-210.300(1), F.A.C.]

8. 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.]

9. Application for Title V Permit: This permit authorizes construction of the permitted emissions units and initial operation to determine compliance with Department rules. A Title V air operation permit is required for regular operation of the permitted emissions unit. The permittee shall apply for a Title V air operation permit at least 90 days prior to expiration of this permit, but no later than 180 days after commencing operation. To apply for a Title V operation permit, the applicant shall submit the appropriate application form, compliance test results, and such additional information as the Department may by law require. The application shall be submitted to the appropriate Permitting Authority with copies to the Compliance Authority. [Rules 62-4.030, 62-4.050, 62-4.220 and Chapter 62-213, F.A.C.]

SHUTDOWN OF EXISTING CONTROL EQUIPMENT

10. Shutdown of Existing Control Equipment: Upon startup, shakedown and commissioning of the clinker cooler fabric filter, pulse-jet baghouses for Clinker Handling Lines 1 and 2 (EU 004 and EU 011) at the Argos Newberry Cement Plant, the clinker cooler ESPs shall be permanently shut down. The exact timing of the shutdown of these control devices shall be done in consultation with the Compliance Authority. The Compliance Authority shall be notified 30 days prior to the startup of the baghouses. A new construction permit shall be obtained, including a PSD applicability analysis, if the applicant wishes authorization to restart any of the ESP's shut down. [Application No. 0010087-052-AC; and, Rule 62-212.400(12), F.A.C.]

A. Clinker Handling Line 1 (EU 004)

This section of the permit addresses the following emissions unit.

EU No.	Emission Unit Description
004	Clinker Handling Line 1

This emissions unit consists of:

EP01: Clinker Cooler Discharge (L-01) and breaker conveyor

EP02: Clinker Silo North (L-06)

EP03: Clinker Cooler (K13-01)

Emission of particulate matter are controlled by fabric filter baghouses.

{Permitting Note: This emissions unit is regulated under NESHAP Subparts A (General Provisions) and LLL (Portland Cement Manufacturing Industry) of 40 CFR 63, adopted and incorporated by reference in Rule 62-204.800(11)(b)48; NSPS Subparts A (General Provisions) and F (Portland Cement Plants) of 40 CFR 60, adopted and incorporated by reference in Rule 62-204.800(8)(b)9, F.A.C.; and Rule 62-212.400, F.A.C., PSD.}

PREVIOUS APPLICABLE REQUIREMENTS

1. Other Permits: The conditions of this permit supplement all previously issued air construction and operation permits for clinker cooler (K13-01). Unless otherwise specified, these conditions are in addition to all other applicable permit conditions and regulations. [Rule 62-4.070, F.A.C.]

EQUIPMENT

2. Fabric Filter Baghouse: The permittee is authorized to replace the existing ESP by installing a fabric filter, pulse-jet type baghouse on Clinker Handling Line 1 clinker cooler (K13-01). The general design specifications for the baghouse will consist of a 99% or more removal of PM emissions. The permittee shall submit the final design specifications to the Compliance Authority within 30 days of final equipment selection. [Design, Application No. 0010087-052-AC; and Rule 62-4.070(3), F.A.C.]

PERMIT BEING MODIFIED

3. The following revisions replaces Table 1 in Appendix GC in **Permit Nos. 0010087-006-AC (PSD-FL-228C).**

Table I – Allowable Opacity Limitations

Stack No.	Description	Grain Loading	Opacity (%)
Emission Unit 1: Raw Material Process Rate = 1,360,000 TPY Dry Feed			
Fugitive	Material Processing	---	10
Fugitive	Handling and Storage	---	10
Fugitive	Crusher	---	15
Emission Unit 2: Raw Mill System Process Rate = 255 TPH Recycle Dust plus Raw Meal (peak)			
E-28	Recycle dust + raw meal to homogenization silo	0.01 gr/dscf	5
G-07	Recycle dust + raw meal to homogenization silo	0.01 gr/dscf	5
H-08	Raw meal + recycle dust to preheater	0.01 gr/dscf	5
Emission Unit 3: Kiln System Process Rate = 364 MMBtu/hr heat input			
E-21	Kiln Operations (ESP)	---	10
E-21	In-Process fuel: coal	---	10
E-21	In-Process fuel: tires	---	10
	Tires (30% of total heat input)	---	---

A. Clinker Handling Line 1 (EU 004)

Stack No.	Description	Grain Loading	Opacity (%)
Emission Unit 4: Clinker Handling Process Rate = 115 TPH Clinker (peak)			
L-03	Clinker cooler discharge and breaker	0.01 gr/dscf	5
L-06	Clinker into clinker silos	0.01 gr/dscf	5
K-15	Clinker Cooler (~~ESP~~Baghouse)	---	10
Emission Unit 5: Finish Grinding Operations Process Rate = 136 TPH Clinker			
M-08	Clinker to finish mill	0.01 gr/dscf	5
N-09	Finish mill air separator	0.01 gr/dscf	5
N-12	Finish mill	0.01 gr/dscf	5
N-19	Cement handling in finish mill	0.01 gr/dscf	5
Q-25	Cement storage silos	0.01 gr/dscf	5
Q-26	Cement storage silos	0.01 gr/dscf	5
Emission Unit 6: Cement Handling Process Rate = 500 TPH Cement Unloading			
Q-14	Cement silo loadout	0.01 gr/dscf	5
Q-17	Cement silo loadout	0.01 gr/dscf	5
Q-21	Cement silo loadout	0.01 gr/dscf	5
R-12	Cement bagging operation	0.01 gr/dscf	5
Emission Unit 7: Coal Handling and Grinding Process Rate = 14 TPH Pulverized Coal			
S-17	Coal Mill	0.01 gr/dscf	5
S-21	Pulverized coal storage bin	0.01 gr/dscf	5
Fugitive	Coal Handling and Storage	---	5/20

[Rule 62-212.400(BACT), F.A.C.; and Permit No. AC01-267311 (PSD-FL-228)]

B. Clinker Handling Line 2 (EU 011)

This section of the permit addresses the following emissions unit.

EU No.	Emission Unit Description
011	Clinker Handling Line 2

This emissions unit consists of:

2K15: Clinker Cooler

2L03: Cooler Discharge

2L12: Clinker into Silo No. 3

2L13: Clinker Transport (2L20, 2L08)

2L15: Clinker Transport (2L20, silo L07-02, 2L09)

2L16: Clinker Transport (2L01, 2L20)

2L18: Clinker to Silo No. 4

Emissions of particulate matter are controlled by fabric filter baghouses.

{Permitting Note: This emissions unit is regulated under NESHAP Subparts A (General Provisions) and LLL (Portland Cement Manufacturing Industry) of 40 CFR 63, adopted and incorporated by reference in Rule 62-204.800(11)(b)48; NSPS Subparts A (General Provisions) and F (Portland Cement Plants) of 40 CFR 60, adopted and incorporated by reference in Rule 62-204.800(8)(b)9, F.A.C.; Rule 62-212.400, F.A.C., PSD; and Rule 62-296.407, F.A.C. Portland Cement Plants.}

PREVIOUS APPLICABLE REQUIREMENTS

1. Other Permits: The conditions of this permit supplement all previously issued air construction and operation permits for Clinker Cooler (2K15). Unless otherwise specified, these conditions are in addition to all other applicable permit conditions and regulations. [Rule 62-4.070, F.A.C.]

EQUIPMENT

2. Fabric Filter Baghouse: The permittee is authorized to replace the existing ESP by installing a fabric filter, pulse-jet type baghouse on Clinker Cooler (2K15). The general design specifications for the baghouse will consist of a 99% or more removal of PM emissions. The permittee shall submit the final design specifications to the Compliance Authority within 30 days of final equipment selection. [Design, Application No. 0010087-052-AC; and Rule 62-4.070(3), F.A.C.]

PERMIT BEING MODIFIED

3. The following revisions replaces the following Specific Conditions in **Permit No. 0010087-031-AC (PSD-FL-350A).**

   Section III, Specific Conditions 16 and 20

   16. Emissions Unit 011: Emissions unit 011 shall have one emission point, the stack of the clinker cooler, designated by the applicant as 2K15. Particulate matter emissions from this emissions unit shall be controlled by ~~an electrostatic precipitator~~a fabric filter baghouse. In addition, baghouses are used to control emissions from the following emission points:

EMISSION POINT	DESCRIPTION
2L03	Cooler Discharge
2L13	Clinker Transport (2L20, 2L08)
2L15	Clinker Transport (2L20, 2L01, 2L08, 2L09)
2L16	Clinker Transport (2L01, 2L20)
2L18	Clinker into quadrated silo

B. Clinker Handling Line 2 (EU 011)

Emissions from emissions unit 011, the clinker cooler, shall not exceed the following limits for the following pollutants:

POLLUTANT	EMISSION LIMIT		AVERAGING TIME	BASIS
PM- ~~ESP~~(2K15)	0.06 lb/ton of dry preheater feed; 0.1 lb/ton of clinker	12.5 lb/hour	3 hours [1]	BACT
PM- Baghouse	0.01 gr/dscf	1.64 lb/hour	3 hours [1]	BACT
PM total	---	14.14 lb/hour	---	---
PM_{10} - ~~ESP~~(2K15)	0.05 lb/ton of dry preheater feed; 0.08 lb/ton of clinker	10.0 lb/hour	3 hours [1]	BACT
PM_{10} - Baghouse	.007 gr/dscf	1.15 lb/hr	3 hours [1]	BACT
PM_{10} total	---	11.15 lb/hr	---	---
VE	10% opacity	---	6 minutes [2]	BACT

1. The averaging times for PM and PM_{10} correspond to the required length of sampling for the initial and subsequent emission tests.
2. The averaging time for visible emissions shall be a 6-minute block average computed from a minimum of one measurement every 15 seconds. The 6 minute block averages shall start at the beginning of each hour.

[Note: These emission limits, along with annual production limits, effectively limit annual emissions to: PM, 60.0 and PM_{10}, 47.5 tons per year.]

[Rules 62-4.070(3), 62-210.700(5) and 62-212.400(BACT), F.A.C.; and Permit No. 0010087-013-AC (PSD-FL-350)]

20. Continuous Emission Monitoring Systems: The owner or operator shall install, calibrate, maintain, and operate a continuous emission monitoring (CEM) system in the in-line kiln/raw mill stack to measure and record the emissions of NOx, SO_2, CO and VOC from the in-line kiln/raw mill, in a manner sufficient to demonstrate compliance with the emission limits of this permit. Compliance with the emission limit for NOx shall be based on a 30-day calendar rolling average that shall be recomputed every 24 hours from the individual hourly averages for the current hour and the preceding 23 hours. Compliance with the emission limit for SO_2 shall be based on a rolling daily average that shall be recomputed every hour from the individual hourly averages for the current hour and the preceding 23 hours. Each hourly average shall be computed from a minimum of one measurement every minute. Compliance with the 3 hour emission limit for CO and VOC shall be based on a 30 day block average that shall be computed from a minimum of one measurement every minute. The CEM system shall express the results in units of pounds per ton of clinker produced, and pounds per hour. [Rule 62-4.070(3), F.A.C., and 62-212.400(BACT), F.A.C.; and Permit No. 0010087-013-AC (PSD-FL-350)]

    Continuous opacity monitor (COM) systems shall be installed, operated, and maintained at the kiln/raw mill baghouse stack and the outlet of the clinker cooler ~~ESP~~baghouse pursuant to 40 CFR 60.63. A continuous emission monitor for emissions of total hydrocarbon is required pursuant to 40 CFR 63.1349 and 63.1~~4~~350. A continuous monitor for the temperature at the inlet to the in-line kiln/raw mill baghouse is required pursuant to 40 CFR 63.1349 and 63.1~~4~~350.

    [NESHAP Subpart LLL of 40 CFR 63; and Permit No. 0010087-013-AC (PSD-FL-350)]