

**OPERATIONS AND MAINTENANCE PLAN
AS REQUIRED BY 40 CFR PART 63 SUBPART LLL
FOR
GCC RIO GRANDE, INC.
TIJERAS PLANT
PART 70 OPERATING PERMIT No. 532
TIJERAS, NM**



FEBRUARY 2020



**OPERATIONS AND MAINTENANCE PLAN
GCC RIO GRANDE TIJERAS PLANT**

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APPENDIX I

1. All Other Affected Sources, 40 CFR Part 63 Subpart LLL
2. Baghouse Preventive Maintenance Procedures
3. Procedure for Daily Visible Emissions (VE) Monitoring
 - a. Directions for Daily Method 22 Observations
 - b. Daily Emissions Monitoring Flowchart
 - c. Corrective Action Plan for Daily VE Observation
 - d. Daily Method 22 VE Observation Forms
4. Procedure for Monthly Visible Emissions Monitoring
 - a. Directions for Monthly Method 22 Observations
 - b. Monthly Method 22 VE Observation Forms
5. Method 9 Form
6. Annual Combustion System Inspection Procedure
7. Open Clinker Storage Pile Location Map

1.0 PURPOSE

This document establishes an Operations and Maintenance Plan for certain particulate emission sources and air pollution control equipment at the GCC Rio Grande, Inc. (GCC) Tijeras Plant. The Tijeras Plant is a major source of hazardous air pollutants (HAPs). For each affected source at the plant subject to the provisions of 40 CFR 63 Subpart LLL (PC MACT), 40 CFR 63.1347 requires preparation of an Operations and Maintenance Plan (O&M Plan) that incorporates the following:

1. Procedures for proper operation and maintenance of affected sources and air pollution control devices in order to meet applicable emissions limits and operating limits, during periods of normal conditions, as well as, startup and shutdown;
2. Corrective actions to be taken when visible emissions are observed during any Method 22 test undertaken as a requirement of the subpart; and
3. Procedures to be used during an annual inspection of the components of the combustion system of each kiln located at a facility.

Covered equipment, applicable limits, and associated air pollution control equipment are summarized in Section 2 of this document. Relevant operating and maintenance procedures and associated records for covered equipment are described in subsequent sections of this document. Information, procedures and records are considered to be relevant for purposes of this Plan if the information, procedure, or record could reasonably be expected to impact compliance, or demonstration of compliance, with a PC MACT requirement.

2.0 PLANT DESCRIPTION AND SCOPE

2.1 PLANT DESCRIPTION

GCC owns and operates a Portland cement manufacturing facility located at 11783 State Highway 337, Tijeras, NM, which is approximately 8 miles east of Albuquerque, NM in the East Mountain area of Bernalillo County. It is an existing source, as defined in 40 CFR 63.2. Portland cement manufacturing involves the crushing, grinding, and blending of limestone and other raw materials into a chemically proportioned mixture, which is then heated in a preheater rotary kiln at extremely high temperatures to produce clinker. The clinker is cooled and ground with gypsum and other additives to produce the finished Portland cement product. The Tijeras Plant consists of quarry operations, crushing systems, raw material receiving and storage areas, raw mill systems, fuel receiving and storage areas, two preheater kiln systems, two clinker coolers, three finish mill systems, and cement storage and shipping

The Tijeras Plant is considered a major source with respect to PC MACT compliance.

2.2 SCOPE

The following covered equipment is addressed in this Operations and Maintenance Plan.

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Affected Source	Covered Equipment	Emission Source			Air Pollution Control Equipment	
		Description	Emission Source ID	PC MACT Applicable Standard or Operating Limit	ID	Description
Kiln #1	General <ul style="list-style-type: none"> • Kiln temperature monitor • Kiln burner fuel control 	Existing Dry Preheater Kiln	Kiln #1 Emission Point: Main stack	Work practices: <ol style="list-style-type: none"> 1. All dry sorbent and activated carbon systems that control HAPs must be turned on and operating when the gas stream to the APCD reaches 300°F during startup. They can be turned off during shutdown. Particulate control must be operating during both startup and shutdown. 2. Use clean fuel(s) until the kiln reaches 1200 °F. 	Emission Unit ID: 6-1	Kiln #1 Baghouse Exhausts to single comingled main stack for both kilns and clinker coolers
Kiln #1	PM <ul style="list-style-type: none"> • Clinker hourly production rate monitoring system • PM CPMS • Baghouse 	Existing Dry Preheater Kiln	Kiln #1 Emission Point: Main stack	PM: 0.07 lb/ton clinker - basis performance (stack) testing on kiln PM CPMS OPL – Operating Parameter Limits established during compliant stack test and based on PM_{alt} = Alternative PM emission limit for comingled sources.	Emission Unit ID: 6-1	Kiln #1 Baghouse Exhausts to single comingled main stack for both kilns and clinker coolers

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Affected Source	Covered Equipment	Emission Source			Air Pollution Control Equipment	
		Description	Emission Source ID	PC MACT Applicable Standard or Operating Limit	ID	Description
Kiln #1	D/F <ul style="list-style-type: none"> Baghouse inlet temperature continuous monitoring system (CMS) 	Existing Dry Preheater Kiln	Kiln #1 Emission Point: Main stack	D/F: <ol style="list-style-type: none"> 0.2 ng/dscm (TEQ) corrected to 7% oxygen (when T>400 °F) Run average temperatures determined in accordance with the D/F Emissions performance test 	Emission Unit ID: 6-1	Kiln #1 Baghouse Exhausts to single comingled main stack for both kilns and clinker coolers
Kiln #1	THC <ul style="list-style-type: none"> THC CEMs O₂ CMS 	Existing Dry Preheater Kiln	Kiln #1 Emission Point: Main stack	THC: 24 ppmvd corrected to 7% oxygen	Emission Unit ID: 6-1	Kiln #1 Baghouse Exhausts to single comingled main stack for both kilns and clinker coolers
Kiln #1	Mercury (Effective Date 9/9/16) <ul style="list-style-type: none"> Hg CEMs Stack flow CMS Clinker hourly production rate monitoring system 	Existing Dry Preheater Kiln	Kiln #1 Emission Point: Main stack	Mercury: 55 lb/MM tons clinker	Emission Unit ID: 6-1	Kiln #1 Baghouse Exhausts to single comingled main stack for both kilns and clinker coolers
Kiln #1	HCl (Effective Date 9/9/16) <ul style="list-style-type: none"> HCl CEMs O₂ CMS 	Existing Dry Preheater Kiln	Kiln #1 Emission Point: Main stack	HCl: 3 ppmvd corrected to 7% oxygen	Emission Unit ID: 6-1	Kiln #1 Baghouse Exhausts to single comingled main stack for both kilns and clinker coolers

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Affected Source	Covered Equipment	Emission Source			Air Pollution Control Equipment	
		Description	Emission Source ID	PC MACT Applicable Standard or Operating Limit	ID	Description
Kiln #2	General <ul style="list-style-type: none"> • Kiln temperature monitor • Kiln burner fuel control 	Existing Dry Preheater Kiln	Kiln #2 Emission Point: Main stack	Work practices: <ol style="list-style-type: none"> 1. All dry sorbent and activated carbon systems that control HAPs must be turned on and operating when the gas stream to the APCD reaches 300°F during startup. They can be turned off during shutdown. Particulate control must be operating during both startup and shutdown. 2. Use clean fuel(s) until the kiln reaches 1200 °F. 	Emission Unit ID: 6-2	Kiln #2 Baghouse Exhausts to single comingled main stack for both kilns and clinker coolers
Kiln #2	PM <ul style="list-style-type: none"> • Clinker hourly production rate monitoring system • PM CPMS • Baghouse 	Existing Dry Preheater Kiln	Kiln #2 Emission Point: Main stack	PM: 0.07 lb/ton clinker - basis performance (stack) testing on kiln PM CPMS OPL – Operating Parameter Limits established during compliant stack test and based on PM _{alt} = Alternative PM emission limit for comingled sources.	Emission Unit ID: 6-2	Kiln #2 Baghouse Exhausts to single comingled main stack for both kilns and clinker coolers

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Affected Source	Covered Equipment	Emission Source			Air Pollution Control Equipment	
		Description	Emission Source ID	PC MACT Applicable Standard or Operating Limit	ID	Description
Kiln #2	D/F <ul style="list-style-type: none"> Kiln baghouse inlet temperature continuous monitoring system (CMS) 	Existing Dry Preheater Kiln	Kiln #2 Emission Point: Main stack	D/F: <ol style="list-style-type: none"> 0.2 ng/dscm (TEQ) corrected to 7% oxygen (when T>400 °F) Run average temperatures determined in accordance with the D/F Emissions performance test. 	Emission Unit ID: 6-2	Kiln #2 Baghouse Exhausts to single comingled main stack for both kilns and clinker coolers
Kiln #2	THC <ul style="list-style-type: none"> THC CEMs O₂ CMS 	Existing Dry Preheater Kiln	Kiln #2 Emission Point: Main stack	THC: 24 ppmvd corrected to 7% oxygen	Emission Unit ID: 6-2	Kiln #2 Baghouse Exhausts to single comingled main stack for both kilns and clinker coolers
Kiln #2	Mercury (Effective Date 9/9/16) <ul style="list-style-type: none"> Hg CEMs Stack flow CMS Clinker hourly production rate monitoring system 	Existing Dry Preheater Kiln	Kiln #2 Emission Point: Main stack	Mercury: 55 lb/MM tons clinker	Emission Unit ID: 6-2	Kiln #2 Baghouse Exhausts to single comingled main stack for both kilns and clinker coolers
Kiln #2	HCl (Effective Date 9/9/16) <ul style="list-style-type: none"> HCl CEMs O₂ CMS 	Existing Dry Preheater Kiln	Kiln #2 Emission Point: Main stack	HCl: 3 ppmvd corrected to 7% oxygen	Emission Unit ID: 6-2	Kiln #2 Baghouse Exhausts to single comingled main stack for both kilns and clinker coolers

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Affected Source	Covered Equipment	Emission Source			Air Pollution Control Equipment	
		Description	Emission Source ID	PC MACT Applicable Standard or Operating Limit	ID	Description
Clinker Cooler #1	PM <ul style="list-style-type: none"> PM CPMS Baghouse 	Existing clinker cooler	Clinker Cooler #1 Emission Point: Main stack	PM: 0.07 lb/ton clinker: basis performance (stack) testing on Clinker Cooler. PM CPMS OPL – Operating Parameter Limits established during compliant stack test and based on PM _{alt} = Alternative PM emission limit for commingled sources. <i>Work practice:</i> The APCD and monitoring must be operating during startup and shutdown	Emission Unit IDs: 5-3, 5-4, 5-5, and 5-6	Clinker Cooler #1 Baghouses Exhaust to single comingled main stack for both kilns and clinker coolers
Clinker Cooler #2	PM <ul style="list-style-type: none"> PM CPMS Baghouse 	Existing clinker cooler	Clinker Cooler #2 Emission Point: Main stack	PM: 0.07 lb/ton clinker: basis performance (stack) testing on Clinker Cooler. PM CPMS OPL – Operating Parameter Limits established during compliant stack test and based on PM _{alt} = Alternative PM emission limit for commingled sources. <i>Work practice:</i> The APCD and monitoring must be operating during startup and shutdown	Emission Unit IDs: 5-7, 5-8, 5-9, and 5-10	Clinker Cooler #1 Baghouses Exhaust to single comingled main stack for both kilns and clinker coolers
Raw Mill #1	Opacity <ul style="list-style-type: none"> Baghouse 	Existing ball mill #1	Raw Mill #1 Emission Point 3.2	Opacity: 10% Daily VE check	Emission Unit ID: 3-2	Baghouse

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Affected Source	Covered Equipment	Emission Source			Air Pollution Control Equipment	
		Description	Emission Source ID	PC MACT Applicable Standard or Operating Limit	ID	Description
Raw Mill #1	Opacity <ul style="list-style-type: none"> Baghouse 	Existing ball mill #1 air separator	Raw Mill #1 Emission Point 3.1	Opacity: 10% Daily VE check	Emission Unit ID: 3-1	Baghouse
Raw Mill #2	Opacity <ul style="list-style-type: none"> Baghouse 	Existing ball mill #2	Raw Mill #2 Emission Point 3.4	Opacity: 10% Daily VE check	Emission Unit ID: 3-4	Baghouse
Raw Mill #2	Opacity <ul style="list-style-type: none"> Baghouse 	Existing ball mill #2 air separator	Raw Mill #2 Emission Point 3.3	Opacity: 10% Daily VE check	Emission Unit ID: 3-3	Baghouse
Finish Mill #1	Opacity <ul style="list-style-type: none"> Baghouse 	Existing finish mill #1	Finish Mill #1 Emission Point 8.1	Opacity: 10% Daily VE check	Emission Unit ID: 8-1	Baghouse
Finish Mill #1	Opacity <ul style="list-style-type: none"> Baghouse 	Existing finish mill #1 air separator	Finish Mill #1 Emission Point 8.2	Opacity: 10% Daily VE check	Emission Unit ID: 8-2	Baghouse
Finish Mill #2	Opacity <ul style="list-style-type: none"> Baghouse 	Existing finish mill #2	Finish Mill #2 Emission Point 8.3	Opacity: 10% Daily VE check	Emission Unit ID: 8-3	Baghouse

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Affected Source	Covered Equipment	Emission Source			Air Pollution Control Equipment	
		Description	Emission Source ID	PC MACT Applicable Standard or Operating Limit	ID	Description
Finish Mill #2	Opacity <ul style="list-style-type: none"> Baghouse 	Existing finish mill #2 air separator	Finish Mill #2 Emission Point 8.4	Opacity: 10% Daily VE check	Emission Unit ID: 8-4	Baghouse
Finish Mill #3	Opacity <ul style="list-style-type: none"> Baghouse 	Existing finish mill #3	Finish Mill #3 Emission Point 8.7	Opacity: 10% Daily VE check	Emission Unit ID: 8-6	Baghouse
Finish Mill #3	Opacity <ul style="list-style-type: none"> Baghouse 	Existing finish mill #3 air separator	Finish Mill #3 Emission Point 8.7	Opacity: 10% Daily VE check	Emission Unit ID: 8-7	Baghouse
Clinker Storage Piles	Fugitive dust control equipment	Short-Term Open clinker storage pile	See Appendix I for pile location information	Fugitive dust emissions control measures, most appropriate for site conditions	See Appendix I for pile location information	Controls may include: <ul style="list-style-type: none"> Use of tarpaulin or other equally effective cover

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Affected Source	Covered Equipment	Emission Source			Air Pollution Control Equipment	
		Description	Emission Source ID	PC MACT Applicable Standard or Operating Limit	ID	Description
All Other Affected Sources	Opacity <ul style="list-style-type: none"> Baghouse 	Existing raw material, clinker or finished product storage bin; conveying system transfer point; bagging system; bulk loading or unloading system	See Summary of "All Other Affected Sources, 40 CFR Part 63 Subpart LLL" in Appendix I	Opacity: 10% Monthly VE check	See Summary of "All Other Affected Sources, 40 CFR Part 63 Subpart LLL" in Appendix I	Baghouses

3.0 DEFINITIONS

The following definitions apply throughout this document.

Clean Fuel means natural gas, synthetic natural gas, propane, distillate oil, synthesis gas (syngas), and ultra-low sulfur diesel (ULSD).

Continuous Monitoring means the sampling of the regulated parameter specified in 40 CFR §63.150 at least every 15 seconds, and the recording the average value of the regulated parameter at least every 60 seconds, except during allowable periods of calibration and except as defined otherwise by an applicable performance specification.

Covered Equipment means equipment or equipment components that could reasonably impact compliance with an applicable requirement in PC MACT. Covered equipment is specified in Section 2.2.

Excess Emissions means, results of any required measurements outside the applicable range (e.g., emissions limitations, parametric operating limits) that is permitted by PC MACT.

Kiln means a device, including any associated preheater or precalciner devices, inline raw mills, inline coal mills or alkali bypasses that produces clinker by heating limestone and other materials for subsequent production of portland cement. Because the inline raw mill and inline coal mill are considered an integral part of the kiln, for purposes of determining the appropriate emissions limit, the term kiln also applies to the exhaust of the inline raw mill and the inline coal mill.

Kiln Temperature Monitor is the backend temperature monitor.

Malfunction means failure of air pollution controls, monitoring equipment or a process to operate in a normal manner and which has the potential to cause non-compliance with a PC MACT emission limitation or monitoring requirement.

Open Clinker Storage Pile means a clinker storage pile on the ground for more than three days that is not completely enclosed in a building or structure.

Operating day means any 24-hour period beginning at 12:00 midnight during which the kiln produces any amount of clinker. For calculating the 30 day rolling average emissions, kiln operating days do not included the hours of operation during startup or shutdown.

Shutdown means the cessation of kiln operation. Shutdown begins when feed to the kiln is halted and ends when continuous kiln rotation ceases.

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Startup means the time from when a shutdown kiln first begins firing fuel until it begins producing clinker. Startup begins when a shutdown kiln turns on the induced draft fan and begins firing fuel in the main burner. Startup ends when feed is being continuously introduced into the kiln for at least 120 minutes or when the feed rate exceeds 60 percent of the kiln design limitation rate, whichever occurs first.

4.0 GENERAL

This Operations and Maintenance Plan satisfies the requirements of 40 C.F.R. § 63.1350(a). Pursuant to 40 C.F.R. § 63.1350 (a), this plan is incorporated into the Tijeras Facility's operating permit application. Only the provisions of this operation and maintenance plan which are required by 40 C.F.R. § 63.1350(a) are enforceable under both 40 C.F.R. §63.1350(b) or any operating permit which may be ultimately approved by the permitting authority. This operation and maintenance plan shall be implemented by the facility upon the initial compliance date of the NESHAP.

This plan may be updated and revised. Changes to this plan may be required because of changes in source designations, changes in affected sources, equipment and process changes, and experience implementing the NESHAP. Revisions to this operations and maintenance plan would not alter any emissions limit or monitoring requirement under the NESHAP. Therefore, revisions to this plan will be processed as either an update to the facility's operating permit, or an administrative amendment to an existing operating permit for the facility. GCC may initiate such an administrative change to the operation and maintenance plan using a written notice to the permitting agency.

Beyond what is covered in Sections 5 through 10 of this document, emissions from fugitive sources will also be limited. All personnel have been trained to identify potential problems with instructions to communicate visible emissions to Supervisors, Managers, and Environmental Engineer for immediate action.

The plant maintains replacement and spare parts as current inventory. In the unexpected case of a part or parts not being available, it is likely that other GCC plants in the region would have the necessary replacement parts.

Clinker piles resulting from spills are cleaned up as soon as practicable, but no later than three days after they occur.

5.0 KILNS

This section contains operating instructions for normal operation, preventive maintenance and repair instructions, and required records for covered equipment under the Kilns #1 and #2. Instructions apply to each covered piece of equipment including each kiln, control device, or monitoring device as applicable during each operation mode. The scope of these instructions is limited to actions equipment operators must take to maintain compliance, or mitigate non-compliance, with PC MACT requirements. The instructions do not address aspects of plant operation that do not pertain to PC MACT compliance, such as safety, production and product quality.

Recordkeeping associated with notifications, applicability, or performance testing, unless associated with emission standards or operating limits, is not covered. Retain files for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent 2 years of data shall be retained on site. The remaining 3 years of data may be retained off site.

5.1 KILN OPERATION PLAN

Kiln	Kiln #1 and Kiln #2 Emission Point: Main Stack Emission Unit ID's: 6-1 and 6-2
Startup	<ol style="list-style-type: none"> 1. General <ol style="list-style-type: none"> a. Verify a clean fuel is used until the kiln reaches a temperature of 1200°F b. Verify kiln temperature monitor is operational 2. Particulate Emissions Control and Monitoring <ol style="list-style-type: none"> a. Check clinker hourly production rate monitoring system status b. Check PM CPMS status c. Verify baghouse is operational d. Check baghouse for proper operation 3. D/F Emissions Control and Monitoring <ol style="list-style-type: none"> a. Check temperature CMS status 4. THC Emissions Monitoring <ol style="list-style-type: none"> a. Check THC CEMs status b. Check O₂ CMS status 5. Mercury Emissions Control and Monitoring (Effective Date 9/9/16) <ol style="list-style-type: none"> a. Check Hg CEMs status b. Check stack flow CMS status c. Check clinker hourly production rate monitoring system status 6. HCl Emissions Control and Monitoring (Effective Date 9/9/16) <ol style="list-style-type: none"> a. Check HCl CEMs status b. Check O₂ CMS status

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Kiln	Kiln #1 and Kiln #2 Emission Point: Main Stack Emission Unit ID's: 6-1 and 6-2
Normal Operation	<ol style="list-style-type: none"> 1. General <ol style="list-style-type: none"> a. Inspect burner for proper operation General duty to minimize emissions: Maintain affected source and associated APCD and monitoring equipment in a manner consistent with safety and good air pollution control practices 2. Particulate Emissions Control and Monitoring <ol style="list-style-type: none"> a. Monitor the hourly clinker production rate in accordance with clinker production rate monitoring requirements b. Continuously monitor particulate emissions with the PM CPMS in accordance with PM monitoring requirements c. Maintain baghouse operation as necessary to comply with PM limits 3. D/F Emissions Control and Monitoring <ol style="list-style-type: none"> a. Continuously monitor baghouse inlet temperature with baghouse inlet temperature CMS in accordance with D/F monitoring requirements 4. THC Emissions Monitoring <ol style="list-style-type: none"> a. Continuously monitor THC emissions with THC CEMs in accordance with THC monitoring requirements b. Continuously monitor O₂ with O₂ CMS in accordance with parameter monitoring requirements 5. Mercury Emissions Control and Monitoring (Effective Date 9/9/16) <ol style="list-style-type: none"> a. Continuously monitor mercury emissions with Hg CEMs in accordance with mercury monitoring requirements b. Continuously monitor stack gas flow rate with stack flow CMS in accordance with continuous flow rate monitoring system requirements c. Monitor the hourly clinker production rate in accordance with clinker production rate monitoring requirements 6. HCl Emissions Control and Monitoring (Effective Date 9/9/16) <ol style="list-style-type: none"> a. Continuously monitor HCl emissions with HCl CEMs in accordance with HCl monitoring requirements b. Continuously monitor O₂ with O₂ CMS in accordance with parameter monitoring requirements

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Kiln	Kiln #1 and Kiln #2 Emission Point: Main Stack Emission Unit ID's: 6-1 and 6-2
Shutdown	<ol style="list-style-type: none"> 1. Verify baghouse is operational until the kiln completes shutdown
Malfunctions	<ol style="list-style-type: none"> 1. General <ol style="list-style-type: none"> a. Failure to monitor kiln temperature 2. Particulate Emissions Control and Monitoring <ol style="list-style-type: none"> a. Failure to monitor the hourly clinker production rate in accordance with clinker production rate monitoring requirements b. Failure to continuously monitor PM parameter with the PM CPMS c. Exceedance of the PM parameter operating limit (milliamps) d. Failure to operate baghouse properly 3. D/F Emissions Control and Monitoring <ol style="list-style-type: none"> a. Failure to continuously monitor kiln baghouse inlet temperature with kiln baghouse inlet temperature CMS in accordance with D/F monitoring requirements 4. THC Emissions Monitoring <ol style="list-style-type: none"> a. Failure to continuously monitor THC emissions with THC CEMs in accordance with THC monitoring requirements b. Exceedance of the THC limit c. Failure to continuously monitor O₂ with O₂ CMS in accordance with parameter monitoring requirements 5. Mercury Emissions Control and Monitoring (Effective Date 9/9/16) <ol style="list-style-type: none"> a. Exceedance of the mercury limit b. Failure to continuously monitor mercury emissions with Hg CEMs in accordance with mercury monitoring requirements c. Failure to continuously monitor stack gas flow rate with stack flow CMS in accordance with continuous flow rate monitoring system requirements d. Failure to monitor the hourly clinker production rate in accordance with clinker production rate monitoring requirements

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Kiln	Kiln #1 and Kiln #2 Emission Point: Main Stack Emission Unit ID's: 6-1 and 6-2
	<ul style="list-style-type: none"> 6. HCl Emissions Control and Monitoring (Effective Date 9/9/16) <ul style="list-style-type: none"> a. Exceedance of HCl limit b. Failure to continuously monitor HCl emissions with HCl CEMs in accordance with HCl monitoring requirements c. Failure to continuously monitor O₂ with O₂ CMS in accordance with parameter monitoring requirements
Malfunctions – Corrective Actions	<ul style="list-style-type: none"> 1. General <ul style="list-style-type: none"> a. Repair kiln temperature monitor 2. Particulate Emissions Control and Monitoring Equipment <ul style="list-style-type: none"> a. Repair malfunctioning clinker measuring system b. Repair malfunctioning PM CPMS c. Repair malfunctioning baghouse components d. Re-establish baghouse operation within the acceptable operating range(s) 3. D/F Emissions Control and Monitoring Equipment <ul style="list-style-type: none"> a. Repair malfunctioning kiln baghouse inlet temperature CMS 4. THC Emissions Monitoring Equipment <ul style="list-style-type: none"> a. Repair malfunctioning THC CEMs b. Repair malfunctioning O₂ CMS 5. Mercury Emissions Control and Monitoring (Effective Date 9/9/16) <ul style="list-style-type: none"> a. Repair malfunctioning Hg CEMs b. Repair malfunctioning stack flow CMS c. Repair malfunctioning clinker measuring system 6. HCl Emissions Control and Monitoring (Effective Date 9/9/16) <ul style="list-style-type: none"> a. Repair malfunctioning HCl CEMs b. Repair malfunctioning O₂ CMS

5.2 KILN MAINTENANCE PLAN

Kiln	Kiln #1 and Kiln #2 Emission Point: Main Stack Emission Unit ID's: 6-1 and 6-2
Maintenance	<ol style="list-style-type: none"> 1. General <ol style="list-style-type: none"> a. Check calibration of kiln temperature monitoring system and recalibrate if out of tolerance b. Inspect kiln burner per preventive maintenance schedule c. Perform annual kiln combustion system inspection (See Appendix I) 2. Particulate Emissions Control and Monitoring Equipment <ol style="list-style-type: none"> a. Check calibration of clinker monitoring system and recalibrate if out of tolerance b. Perform PM CPMS QA/QC activities c. Inspect baghouse per preventive maintenance schedule d. Repair malfunctioning baghouse components as necessary 3. D/F Emissions Control and Monitoring Equipment <ol style="list-style-type: none"> a. Check calibration of kiln baghouse inlet temperature CMS monitoring system (e.g., thermocouples and other temperature sensors) b. Perform temperature CMS QA/QC activities 4. THC Monitoring Equipment <ol style="list-style-type: none"> a. Check calibration of THC CEMs and recalibrate if out of tolerance b. Check calibration of O₂ CMS and recalibrate if out of tolerance c. Perform THC CEMs QA/QC activities 5. Mercury Control and Monitoring Equipment (Effective Date 9/9/16) <ol style="list-style-type: none"> a. Check calibration of Hg CEMs and recalibrate if out of tolerance b. Perform Hg CEMs QA/QC activities c. Check calibration of clinker monitoring system and recalibrate if out of tolerance d. Check calibration of stack flow CMS and recalibrate if out of tolerance 6. HCl Control and Monitoring Equipment (Effective Date 9/9/16) <ol style="list-style-type: none"> a. Check calibration of HCl CEMS and recalibrate if out of tolerance

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Kiln	Kiln #1 and Kiln #2 Emission Point: Main Stack Emission Unit ID's: 6-1 and 6-2
	<ul style="list-style-type: none">b. Perform HCl CEMs QA/QC activitiesc. Check calibration of O₂ CMS and recalibrate if out of tolerance

For each affected source category, verify what preventive maintenance activity (elements) and records may be redundant with the CMS QA/QC Plan and CMS Site Specific Monitoring Plans. If left in O&M Plan, they must be checked for consistency with other plans.

5.3 KILN RECORDS

Kiln	Kiln #1 and Kiln #2 Emission Point: Main Stack Emission Unit ID's: 6-1 and 6-2
Recordkeeping	<ol style="list-style-type: none"> 1. General Kiln Records <ol style="list-style-type: none"> a. Record of each startup or shutdown period in accordance with recordkeeping requirements b. Record of the type of fuel used until the kiln reached a temperature of 1200°F c. Record of the primary kiln fuel used once the kiln temperature reached 1200°F d. Continuous kiln temperature monitoring record e. Calibration and repair records for kiln temperature monitor f. Burner Inspection and preventive maintenance record g. Record of each malfunction that causes the kiln to fail to meet an applicable standard in accordance with recordkeeping requirements h. Record of actions taken during periods of malfunction in accordance with recordkeeping requirements i. Record of each exceedance from an emissions standard or established operating parameter limit in accordance with recordkeeping requirements j. Retain records of daily clinker production and/or kiln feed rates. 2. Particulate Related Records <ol style="list-style-type: none"> a. Continuous PM CPMS monitoring record b. PM CPMS QA/QC and repair record c. Baghouse preventive maintenance and repair record 3. D/F Related Records <ol style="list-style-type: none"> a. Continuous inlet to kiln APCD temperature CMS monitoring record b. Temperature CMS QA/QC and repair record c. Calibration record for the inlet to kiln APCD temperature CMS

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Kiln	Kiln #1 and Kiln #2 Emission Point: Main Stack Emission Unit ID's: 6-1 and 6-2
	<ul style="list-style-type: none">4. THC Related Records<ul style="list-style-type: none">a. Continuous O₂ CMS monitoring recordb. Calibration record for the O₂ CMSc. Continuous THC CEMs monitoring recordsd. Calibration record for the THC CEMse. THC CEMs QA/QC and repair record 5. Mercury Related Records<ul style="list-style-type: none">a. Continuous Hg CEMs monitoring recordb. Calibration record for Hg CEMsc. Continuous stack flow CMS monitoring recordd. Calibration record for the stack flow CMSe. Record of the clinker production ratef. Calibration record for the clinker production rate monitoring systemg. Hg CEMs QA/QC and repair record 6. HCl Related Records<ul style="list-style-type: none">a. Continuous HCl CEMs monitoring recordb. HCl CEMs QA/QC and repair recordc. Calibration record for the HCl CEMSd. Continuous O₂ CMS monitoring recorde. Calibration record for the O₂ CMS

6.0 CLINKER COOLER

This section contains operating instructions for normal operation, preventive maintenance and repair instructions, and required records for covered equipment under Clinker Cooler #1 and Clinker Cooler #2. Instructions apply to each covered piece of equipment including each clinker cooler, control device, or monitoring device as applicable during each operation mode. The scope of these instructions is limited to actions equipment operators must take to maintain compliance, or mitigate non-compliance, with PC MACT requirements. The instructions do not address aspects of plant operation that do not pertain to PC MACT compliance, such as safety, production and product quality.

Recordkeeping associated with notifications, applicability, or performance testing, unless associated with emission standards or operating limits, is not covered. Retain files for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent 2 years of data shall be retained on site. The remaining 3 years of data may be retained off site.

6.1 CLINKER COOLER OPERATION PLAN

Clinker Cooler
Startup
Normal Operation
Shutdown
Malfunctions

**OPERATIONS AND MAINTENANCE PLAN
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Clinker Cooler

Malfunctions –Corrective Actions

6.2 CLINKER COOLER MAINTENANCE PLAN

Clinker Cooler	Clinker Cooler #1 and Clinker Cooler #2 Emission Point: Main Stack Emission Unit ID's: 5-3, 5-4, 5-5, 5-6, 5-7, 5-8, 5-9, and 5-10
Maintenance	<ol style="list-style-type: none">1. Check calibration of clinker monitoring system and recalibrate if out of tolerance2. Perform PM CPMS QA/QC activities3. Inspect baghouse per preventive maintenance schedule4. Repair malfunctioning baghouse components as necessary

6.3 CLINKER COOLER RECORDS

Clinker Cooler	Clinker Cooler #1 and Clinker Cooler #2 Emission Point: Main Stack Emission Unit ID's: 5-3, 5-4, 5-5, 5-6, 5-7, 5-8, 5-9, and 5-10
Recordkeeping	<ol style="list-style-type: none">1. General Clinker Cooler Records<ol style="list-style-type: none">a. Record of each startup or shutdown period in accordance with recordkeeping requirementsb. Record of each malfunction that causes the clinker cooler to fail to meet an applicable standard in accordance with recordkeeping requirementsc. Record of actions taken during periods of malfunction in accordance with recordkeeping requirementsd. Record of each exceedance from an emissions standard or established operating parameter limit in accordance with recordkeeping requirements 2. Particulate Related Records<ol style="list-style-type: none">a. Record of the clinker production rateb. Continuous PM CPMS monitoring recordc. PM CPMS QA/QC and repair recordd. Baghouse preventive maintenance and repair record

7.0 RAW MILLS

This section contains operating instructions for normal operation, preventive maintenance and repair instructions, and required records for covered equipment under Raw Mill #1 and Raw Mill #2. The scope of these instructions is limited to actions equipment operators must take to maintain compliance, or mitigate non-compliance, with PC MACT requirements. The instructions do not address aspects of plant operation that do not pertain to PC MACT compliance, such as safety, production and product quality.

Recordkeeping associated with notifications, applicability, or performance testing, unless associated with emission standards or operating limits, is not covered. Retain files for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent 2 years of data shall be retained on site. The remaining 3 years of data may be retained off site.

7.1 RAW MILL OPERATION PLAN

Raw Mill
Startup
Normal Operation
Shutdown
Malfunctions
Malfunctions –Corrective Actions

Raw Mill	Raw Mill #1 Air Separator Emission Point 3.1; Emission Unit ID: 3-1
Startup	

**OPERATIONS AND MAINTENANCE PLAN
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Raw Mill	Raw Mill #1 Air Separator Emission Point 3.1; Emission Unit ID: 3-1
	<ol style="list-style-type: none"> 1. Check baghouse status
Normal Operation	<ol style="list-style-type: none"> 1. Opacity Monitoring <ol style="list-style-type: none"> a. Maintain baghouse operation to ensure compliance with opacity limits b. Monitor opacity by performing daily visible emissions observations as per “Procedure for Daily Visible Emissions Monitoring” in Appendix I 2. General duty to minimize emissions: Maintain affected source and associated APCD and monitoring equipment in a manner consistent with safety and good air pollution control practices
Shutdown	<ol style="list-style-type: none"> 1. Check baghouse status
Malfunctions	<ol style="list-style-type: none"> 1. Failure to operate baghouse properly 2. Exceedance of opacity limit
Malfunctions – Corrective Actions	<ol style="list-style-type: none"> 1. Repair malfunctioning baghouse components 2. Re-establish baghouse operation within the acceptable operating range(s)

**OPERATIONS AND MAINTENANCE PLAN
GCC RIO GRANDE, INC. TIJERAS PLANT**

Raw Mill	Raw Mill #2 Emission Point 3.4; Emission Unit ID: 3-4
Startup	<ol style="list-style-type: none"> 1. Check baghouse status
Normal Operation	<ol style="list-style-type: none"> 1. Opacity Monitoring <ol style="list-style-type: none"> a. Maintain baghouse operation to ensure compliance with opacity limits b. Monitor opacity by performing daily visible emissions observations as per "Procedure for Daily Visible Emissions Monitoring" in Appendix I 2. General duty to minimize emissions: Maintain affected source and associated APCD and monitoring equipment in a manner consistent with safety and good air pollution control practices
Shutdown	<ol style="list-style-type: none"> 1. Check baghouse status
Malfunctions	<ol style="list-style-type: none"> 1. Failure to operate baghouse properly 2. Exceedance of opacity limit
Malfunctions – Corrective Actions	<ol style="list-style-type: none"> 1. Repair malfunctioning baghouse components 2. Re-establish baghouse operation within the acceptable operating range(s)

**OPERATIONS AND MAINTENANCE PLAN
GCC RIO GRANDE, INC. TIJERAS PLANT**

Raw Mill	Raw Mill #2 Air Separator Emission Point 3.3; Emission Unit ID: 3-3
Startup	<ol style="list-style-type: none"> 1. Check baghouse status
Normal Operation	<ol style="list-style-type: none"> 1. Opacity Monitoring <ol style="list-style-type: none"> a. Maintain baghouse operation to ensure compliance with opacity limits b. Monitor opacity by performing daily visible emissions observations as per "Procedure for Daily Visible Emissions Monitoring" in Appendix I 2. General duty to minimize emissions: Maintain affected source and associated APCD and monitoring equipment in a manner consistent with safety and good air pollution control practices
Shutdown	<ol style="list-style-type: none"> 1. Check baghouse status
Malfunctions	<ol style="list-style-type: none"> 1. Failure to operate baghouse properly 2. Exceedance of opacity limit
Malfunctions – Corrective Actions	<ol style="list-style-type: none"> 1. Repair malfunctioning baghouse components 2. Re-establish baghouse operation within the acceptable operating range(s)

7.2 RAW MILL MAINTENANCE PLAN

Raw Mill	Raw Mill #1 Emission Point 3.2; Emission Unit ID: 3-2
Maintenance	<ol style="list-style-type: none">1. Inspect baghouse per preventive maintenance schedule2. Repair malfunctioning baghouse components as necessary

Raw Mill	Raw Mill #1 Air Separator Emission Point 3.1; Emission Unit ID: 3-1
Maintenance	<ol style="list-style-type: none">1. Inspect baghouse per preventive maintenance schedule2. Repair malfunctioning baghouse components as necessary

Raw Mill	Raw Mill #2 Emission Point 3.4; Emission Unit ID: 3-4
Maintenance	<ol style="list-style-type: none">1. Inspect baghouse per preventive maintenance schedule2. Repair malfunctioning baghouse components as necessary

Raw Mill	Raw Mill #2 Air Separator Emission Point 3.3; Emission Unit ID: 3-3
Maintenance	<ol style="list-style-type: none">1. Inspect baghouse per preventive maintenance schedule2. Repair malfunctioning baghouse components as necessary

7.3 RAW MILL RECORDS

Raw Mill	Raw Mill #1 Emission Point 3.2; Emission Unit ID: 3-2
Recordkeeping	<ol style="list-style-type: none"> 1. General Raw Mill Records <ol style="list-style-type: none"> a. Record of each malfunction that causes the raw mill to fail to meet an applicable standard in accordance with recordkeeping requirements b. Record of actions taken during periods of malfunction in accordance with recordkeeping requirements c. Record of each exceedance from an emissions standard or established operating parameter limit in accordance with recordkeeping requirements 2. Opacity Related Records <ol style="list-style-type: none"> a. Baghouse preventive maintenance and repair record b. Visible emissions inspection record

Raw Mill	Raw Mill #1 Air Separator Emission Point 3.1; Emission Unit ID: 3-1
Recordkeeping	<ol style="list-style-type: none"> 1. General Raw Mill Records <ol style="list-style-type: none"> a. Record of each malfunction that causes the raw mill to fail to meet an applicable standard in accordance with recordkeeping requirements b. Record of actions taken during periods of malfunction in accordance with recordkeeping requirements c. Record of each exceedance from an emissions standard or established operating parameter limit in accordance with recordkeeping requirements 2. Opacity Related Records <ol style="list-style-type: none"> a. Baghouse preventive maintenance and repair record b. Visible emissions inspection record

**OPERATIONS AND MAINTENANCE PLAN
GCC RIO GRANDE, INC. TIJERAS PLANT**

Raw Mill	Raw Mill #2 Emission Point 3.4; Emission Unit ID: 3-4
Recordkeeping	<ol style="list-style-type: none"> 1. General Raw Mill Records <ol style="list-style-type: none"> a. Record of each malfunction that causes the raw mill to fail to meet an applicable standard in accordance with recordkeeping requirements b. Record of actions taken during periods of malfunction in accordance with recordkeeping requirements c. Record of each exceedance from an emissions standard or established operating parameter limit in accordance with recordkeeping requirements 2. Opacity Related Records <ol style="list-style-type: none"> a. Baghouse preventive maintenance and repair record b. Visible emissions inspection record

Raw Mill	Raw Mill #2 Air Separator Emission Point 3.3; Emission Unit ID: 3-3
Recordkeeping	<ol style="list-style-type: none"> 1. General Raw Mill Records <ol style="list-style-type: none"> a. Record of each malfunction that causes the raw mill to fail to meet an applicable standard in accordance with recordkeeping requirements b. Record of actions taken during periods of malfunction in accordance with recordkeeping requirements c. Record of each exceedance from an emissions standard or established operating parameter limit in accordance with recordkeeping requirements 2. Opacity Related Records <ol style="list-style-type: none"> a. Baghouse preventive maintenance and repair record b. Visible emissions inspection record

8.0 FINISH MILL

This section contains operating instructions for normal operation, preventive maintenance and repair instructions, and required records for covered equipment under Finish Mill #1, Finish Mill #2, and Finish Mill #3. The scope of these instructions is limited to actions equipment operators must take to maintain compliance, or mitigate non-compliance, with PC MACT requirements. The instructions do not address aspects of plant operation that do not pertain to PC MACT compliance, such as safety, production and product quality.

Recordkeeping associated with notifications, applicability, or performance testing, unless associated with emission standards or operating limits, is not covered. Retain files for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent 2 years of data shall be retained on site. The remaining 3 years of data may be retained off site.

8.1 FINISH MILL OPERATION PLAN

Finish Mill
Startup
Normal Operation
Shutdown
Malfunctions
Malfunctions –Corrective Actions

Finish Mill	Finish Mill #1 Air Separator Emission Point 8.1; Emission Unit ID: 8-1
Startup	

**OPERATIONS AND MAINTENANCE PLAN
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Finish Mill	Finish Mill #1 Air Separator Emission Point 8.1; Emission Unit ID: 8-1
	<ol style="list-style-type: none"> 1. Check baghouse status
Normal Operation	<ol style="list-style-type: none"> 1. Opacity Monitoring <ol style="list-style-type: none"> a. Maintain baghouse operation to ensure compliance with opacity limits b. Monitor opacity by performing daily visible emissions observations as per “Procedure for Daily Visible Emissions Monitoring” in Appendix I 2. General duty to minimize emissions: Maintain affected source and associated APCD and monitoring equipment in a manner consistent with safety and good air pollution control practices
Shutdown	<ol style="list-style-type: none"> 1. Check baghouse status
Malfunctions	<ol style="list-style-type: none"> 1. Failure to operate baghouse properly 2. Exceedance of opacity limit
Malfunctions – Corrective Actions	<ol style="list-style-type: none"> 1. Repair malfunctioning baghouse components 2. Re-establish baghouse operation within the acceptable operating range(s)

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Finish Mill	Finish Mill #2 Emission Point 8.4; Emission Unit ID: 8-4
Startup	<ol style="list-style-type: none"> 1. Check baghouse status
Normal Operation	<ol style="list-style-type: none"> 1. Opacity Monitoring <ol style="list-style-type: none"> a. Maintain baghouse operation to ensure compliance with opacity limits b. Monitor opacity by performing daily visible emissions observations as per “Procedure for Daily Visible Emissions Monitoring” in Appendix I 2. General duty to minimize emissions: Maintain affected source and associated APCD and monitoring equipment in a manner consistent with safety and good air pollution control practices
Shutdown	<ol style="list-style-type: none"> 1. Check baghouse status
Malfunctions	<ol style="list-style-type: none"> 1. Failure to operate baghouse properly 2. Exceedance of opacity limit
Malfunctions – Corrective Actions	<ol style="list-style-type: none"> 1. Repair malfunctioning baghouse components 2. Re-establish baghouse operation within the acceptable operating range(s)

**OPERATIONS AND MAINTENANCE PLAN
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Finish Mill	Finish Mill #2 Air Separator Emission Point 8.3; Emission Unit ID: 8-3
Startup	<ol style="list-style-type: none"> 1. Check baghouse status
Normal Operation	<ol style="list-style-type: none"> 1. Opacity Monitoring <ol style="list-style-type: none"> a. Maintain baghouse operation to ensure compliance with opacity limits b. Monitor opacity by performing daily visible emissions observations as per “Procedure for Daily Visible Emissions Monitoring” in Appendix I 2. General duty to minimize emissions: Maintain affected source and associated APCD and monitoring equipment in a manner consistent with safety and good air pollution control practices
Shutdown	<ol style="list-style-type: none"> 1. Check baghouse status
Malfunctions	<ol style="list-style-type: none"> 1. Failure to operate baghouse properly 2. Exceedance of opacity limit
Malfunctions – Corrective Actions	<ol style="list-style-type: none"> 1. Repair malfunctioning baghouse components 2. Re-establish baghouse operation within the acceptable operating range(s)

**OPERATIONS AND MAINTENANCE PLAN
GCC RIO GRANDE, INC. TIJERAS PLANT**

Finish Mill	Finish Mill #3 Emission Point 8.6; Emission Unit ID: 8-6
Startup	<ol style="list-style-type: none"> 1. Check baghouse status
Normal Operation	<ol style="list-style-type: none"> 1. Opacity Monitoring <ol style="list-style-type: none"> a. Maintain baghouse operation to ensure compliance with opacity limits b. Monitor opacity by performing daily visible emissions observations as per "Procedure for Daily Visible Emissions Monitoring" in Appendix I 2. General duty to minimize emissions: Maintain affected source and associated APCD and monitoring equipment in a manner consistent with safety and good air pollution control practices
Shutdown	<ol style="list-style-type: none"> 1. Check baghouse status
Malfunctions	<ol style="list-style-type: none"> 1. Failure to operate baghouse properly 2. Exceedance of opacity limit
Malfunctions – Corrective Actions	<ol style="list-style-type: none"> 1. Repair malfunctioning baghouse components 2. Re-establish baghouse operation within the acceptable operating range(s)

**OPERATIONS AND MAINTENANCE PLAN
GCC RIO GRANDE, INC. TIJERAS PLANT**

Finish Mill	Finish Mill #3 Air Separator Emission Point 8.7; Emission Unit ID: 8-7
Startup	<ol style="list-style-type: none"> 1. Check baghouse status
Normal Operation	<ol style="list-style-type: none"> 1. Opacity Monitoring <ol style="list-style-type: none"> a. Maintain baghouse operation to ensure compliance with opacity limits b. Monitor opacity by performing daily visible emissions observations as per “Procedure for Daily Visible Emissions Monitoring” in Appendix I 2. General duty to minimize emissions: Maintain affected source and associated APCD and monitoring equipment in a manner consistent with safety and good air pollution control practices
Shutdown	<ol style="list-style-type: none"> 1. Check baghouse status
Malfunctions	<ol style="list-style-type: none"> 1. Failure to operate baghouse properly 2. Exceedance of opacity limit
Malfunctions – Corrective Actions	<ol style="list-style-type: none"> 1. Repair malfunctioning baghouse components 2. Re-establish baghouse operation within the acceptable operating range(s)

8.2 FINISH MILL MAINTENANCE PLAN

Finish Mill	Finish Mill #1 Emission Point 8.2; Emission Unit ID: 8-2
Maintenance	<ol style="list-style-type: none">1. Inspect baghouse per preventive maintenance schedule2. Repair malfunctioning baghouse components as necessary

Finish Mill	Finish Mill #1 Air Separator Emission Point 8.1; Emission Unit ID: 8-1
Maintenance	<ol style="list-style-type: none">1. Inspect baghouse per preventive maintenance schedule2. Repair malfunctioning baghouse components as necessary

Finish Mill	Finish Mill #2 Emission Point 8.4; Emission Unit ID: 8-4
Maintenance	<ol style="list-style-type: none">1. Inspect baghouse per preventive maintenance schedule2. Repair malfunctioning baghouse components as necessary

Finish Mill	Finish Mill #2 Air Separator Emission Point 8.3; Emission Unit ID: 8-3
Maintenance	<ol style="list-style-type: none">1. Inspect baghouse per preventive maintenance schedule2. Repair malfunctioning baghouse components as necessary

**OPERATIONS AND MAINTENANCE PLAN
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Finish Mill	Finish Mill #3 Emission Point 8.6; Emission Unit ID: 8-6
Maintenance	<ol style="list-style-type: none">1. Inspect baghouse per preventive maintenance schedule2. Repair malfunctioning baghouse components as necessary

Finish Mill	Finish Mill #3 Air Separator Emission Point 8.7; Emission Unit ID: 8-7
Maintenance	<ol style="list-style-type: none">1. Inspect baghouse per preventive maintenance schedule2. Repair malfunctioning baghouse components as necessary

8.3 FINISH MILL RECORDS

Finish Mill	Finish Mill #1 Emission Point 8.2; Emission Unit ID: 8-2
Recordkeeping	<ol style="list-style-type: none"> 1. General Finish Mill Records <ol style="list-style-type: none"> a. Record of each malfunction that causes the finish mill to fail to meet an applicable standard in accordance with recordkeeping requirements b. Record of actions taken during periods of malfunction in accordance with recordkeeping requirements c. Record of each exceedance from an emissions standard or established operating parameter limit in accordance with recordkeeping requirements 2. Opacity Related Records <ol style="list-style-type: none"> a. Baghouse preventive maintenance and repair record b. Visible emissions inspection record

Finish Mill	Finish Mill #1 Air Separator Emission Point 8.1; Emission Unit ID: 8-1
Recordkeeping	<ol style="list-style-type: none"> 1. General Finish Mill Records <ol style="list-style-type: none"> a. Record of each malfunction that causes the finish mill to fail to meet an applicable standard in accordance with recordkeeping requirements b. Record of actions taken during periods of malfunction in accordance with recordkeeping requirements c. Record of each exceedance from an emissions standard or established operating parameter limit in accordance with recordkeeping requirements 2. Opacity Related Records <ol style="list-style-type: none"> a. Baghouse preventive maintenance and repair record b. Visible emissions inspection record

**OPERATIONS AND MAINTENANCE PLAN
GCC RIO GRANDE, INC. TIJERAS PLANT**

Finish Mill	Finish Mill #2 Emission Point 8.4; Emission Unit ID: 8-4
Recordkeeping	<ol style="list-style-type: none"> 1. General Finish Mill Records <ol style="list-style-type: none"> a. Record of each malfunction that causes the finish mill to fail to meet an applicable standard in accordance with recordkeeping requirements b. Record of actions taken during periods of malfunction in accordance with recordkeeping requirements c. Record of each exceedance from an emissions standard or established operating parameter limit in accordance with recordkeeping requirements 2. Opacity Related Records <ol style="list-style-type: none"> a. Baghouse preventive maintenance and repair record b. Visible emissions inspection record

Finish Mill	Finish Mill #2 Air Separator Emission Point 8.3; Emission Unit ID: 8-3
Recordkeeping	<ol style="list-style-type: none"> 1. General Finish Mill Records <ol style="list-style-type: none"> a. Record of each malfunction that causes the finish mill to fail to meet an applicable standard in accordance with recordkeeping requirements b. Record of actions taken during periods of malfunction in accordance with recordkeeping requirements c. Record of each exceedance from an emissions standard or established operating parameter limit in accordance with recordkeeping requirements 2. Opacity Related Records <ol style="list-style-type: none"> a. Baghouse preventive maintenance and repair record b. Visible emissions inspection record

**OPERATIONS AND MAINTENANCE PLAN
GCC RIO GRANDE, INC. TIJERAS PLANT**

Finish Mill	Finish Mill #3 Emission Point 8.6; Emission Unit ID: 8-6
Recordkeeping	<ol style="list-style-type: none"> 1. General Finish Mill Records <ol style="list-style-type: none"> a. Record of each malfunction that causes the finish mill to fail to meet an applicable standard in accordance with recordkeeping requirements b. Record of actions taken during periods of malfunction in accordance with recordkeeping requirements c. Record of each exceedance from an emissions standard or established operating parameter limit in accordance with recordkeeping requirements 2. Opacity Related Records <ol style="list-style-type: none"> a. Baghouse preventive maintenance and repair record b. Visible emissions inspection record

Finish Mill	Finish Mill #3 Air Separator Emission Point 8.7; Emission Unit ID: 8-7
Recordkeeping	<ol style="list-style-type: none"> 1. General Finish Mill Records <ol style="list-style-type: none"> a. Record of each malfunction that causes the finish mill to fail to meet an applicable standard in accordance with recordkeeping requirements b. Record of actions taken during periods of malfunction in accordance with recordkeeping requirements c. Record of each exceedance from an emissions standard or established operating parameter limit in accordance with recordkeeping requirements 2. Opacity Related Records <ol style="list-style-type: none"> a. Baghouse preventive maintenance and repair record b. Visible emissions inspection record

9.0 OPEN CLINKER STORAGE PILE

This section contains operating instructions for normal operation, preventive maintenance and repair instructions, and required records for covered equipment under Open Clinker Storage Piles. The scope of these instructions is limited to actions equipment operators must take to maintain compliance, or mitigate non-compliance, with PC MACT requirements. The instructions do not address aspects of plant operation that do not pertain to PC MACT compliance, such as safety, production and product quality.

Recordkeeping associated with notifications, applicability, or performance testing, unless associated with emission standards or operating limits, is not covered. Retain files for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent 2 years of data shall be retained on site. The remaining 3 years of data may be retained off site.

9.1 OPEN CLINKER STORAGE PILE OPERATION PLAN

Open Clinker Storage Pile	Open Clinker Storage Pile
Normal Operation	<ol style="list-style-type: none">1. See pile location information in Appendix I. Controls may include:<ul style="list-style-type: none">o Use of tarpaulin or other equally effective cover,2. Inspect for fugitive dust emissions and control as necessary
Malfunctions	<ol style="list-style-type: none">1. Failure of fugitive dust control equipment
Malfunctions – Corrective Actions	<ol style="list-style-type: none">1. Repair malfunctioning fugitive dust control equipment

9.2 OPEN CLINKER STORAGE PILE MAINTENANCE PLAN

Open Clinker Storage Piles
Maintenance

9.3 OPEN CLINKER STORAGE PILE RECORDS

Open Clinker Storage Piles	Open Clinker Storage Pile
Recordkeeping	<ol style="list-style-type: none">1. General Open Clinker Storage Pile Records<ol style="list-style-type: none">a. Record of each malfunction that causes the open clinker storage pile(s) to fail to meet an applicable standard in accordance with recordkeeping requirementsb. Record of actions taken during periods of malfunction in accordance with recordkeeping requirementsc. Record of each exceedance from an emissions standard or established operating parameter limit in accordance with recordkeeping requirementsd. Records of control measures used 2. Fugitive control equipment preventive maintenance and repair record (as necessary)

10.0 ALL OTHER AFFECTED SOURCES

This section contains operating instructions for normal operation, preventive maintenance and repair instructions, and required records for covered equipment under all other affected sources. The scope of these instructions is limited to actions equipment operators must take to maintain compliance, or mitigate non-compliance, with PC MACT requirements. The instructions do not address aspects of plant operation that do not pertain to PC MACT compliance, such as safety, production and product quality.

Recordkeeping associated with notifications, applicability, or performance testing, unless associated with emission standards or operating limits, is not covered. Retain files for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent 2 years of data shall be retained on site. The remaining 3 years of data may be retained off site.

10.1 ALL OTHER AFFECTED SOURCES OPERATION PLAN

Other
Startup
Normal Operation
Shutdown
Malfunctions

**OPERATIONS AND MAINTENANCE PLAN
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Other

Malfunctions –Corrective Actions

10.2 ALL OTHER AFFECTED SOURCES MAINTENANCE PLAN

Other	See Summary of "All Other Affected Sources" in Appendix I
Maintenance	<ol style="list-style-type: none">1. Inspect baghouse per preventive maintenance schedule2. Repair malfunctioning baghouse components as necessary

10.3 ALL OTHER AFFECTED SOURCES RECORDS

Other	See Summary of “All Other Affected Sources” in Appendix I
Recordkeeping	<ol style="list-style-type: none">1. General Affected Source Records<ol style="list-style-type: none">a. Record of each malfunction that causes the affected source to fail to meet an applicable standard in accordance with recordkeeping requirementsb. Record of actions taken during periods of malfunction in accordance with recordkeeping requirementsc. Record of each exceedance from an emissions standard or established operating parameter limit in accordance with recordkeeping requirements 2. Opacity Related Records<ol style="list-style-type: none">a. Baghouse preventive maintenance and repair recordb. Visible emissions inspection record

APPENDIX I

**OPERATIONS AND MAINTENANCE PLAN
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INSERT APPENDIX I HERE
