



July 12, 2023

City of Albuquerque
Environmental Health Department
Air Quality Program, and
Albuquerque/Bernalillo County
Air Quality Control Board

GCC Rio Grande, Inc.
Tijeras Portland Cement Manufacturing Facility
11783 State Highway 337 South
Tijeras, New Mexico

To whom it may concern,

GCC Rio Grande, Inc. (GCC) owns and operates a Portland cement manufacturing facility located at 11783 State Highway 337 South, Tijeras, New Mexico, referred to as the Facility. Per guidance from the Air Quality Program, GCC is submitting this application to incorporate updated short-term NO_x, SO₂, and CO emission limits for the kilns consistent with what was requested in the most recent Title V application.

Updated facility-wide dispersion modeling was conducted and submitted on January 20, 2023 to demonstrate compliance with National Ambient Air Quality Standards (NAAQS) and New Mexico Ambient Air Quality Standards (NMAAQS). That modeling included all requested updates as noted in this application, and as such, additional modeling is not provided with this application.

Please do not hesitate to reach out should you have any questions regarding the submittal. GCC remains committed to ensuring continued compliance with all applicable regulations and appreciates the continued partnership with the department.

Sincerely,

A handwritten signature in black ink that reads "Samantha Kretz".

Samantha Kretz
Environmental Engineer
GCC Tijeras

CC:
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AIR QUALITY PERMIT APPLICATION

GCC Rio Grande, Inc. > Tijeras Facility

**Submitted to the City of Albuquerque
Environmental Health Department,
Air Quality Program**

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1. EXECUTIVE SUMMARY

GCC Rio Grande, Inc. (GCC) owns and operates a Portland cement manufacturing facility located at 11783 State Highway 337 South, Tijeras, New Mexico, referred to as the Facility. The Standard Industrial Classification (SIC) code for the Facility is 3241 (Portland Cement Manufacturing). The Facility operates under the jurisdiction of the Air Quality Program (AQP) of the City of Albuquerque Environmental Health Department (EHD) and the Albuquerque/Bernalillo County Air Quality Control Board (AQCB).

Bernalillo County is currently in attainment or unclassifiable status for all criteria pollutants. The Facility is an existing major source with respect to Prevention of Significant Deterioration (PSD) and Title V permitting requirements. The Tijeras Plant currently operates under Title V Operating Permit #0532-RN1 (AIRS #NM/001/00008) issued by the AQCB on July 28, 2017. The Tijeras Plant is also an existing major source of Hazardous Air Pollutants (HAPs) and is subject to Portland Cement Maximum Achievable Control Technology (PC MACT) Standards under 40 Code of Federal Regulations (40 CFR) Part 63, Subpart LLL¹. Except for a few exceptions at the Facility, most of the operations at the Facility are not subject to New Source Performance Standards (NSPS) under 40 CFR Part 60.

Operations at the Tijeras Plant include on-site quarries; limestone crushing and screening; raw material transfer; preparation, and storage; additive and finished materials transfer and storage; fuel preparation and storage; kiln systems consisting of pyro-processing rotary kilns, coal mills, clinker coolers, finish mills, cement transfer and storage; and shipping.

As part of this project, GCC plans to update the short-term emission limits for the kilns. Current emission limits in Permit Condition 5.1.1 of the Title V Permit are based on an average hourly emission limit derived from the annual emission limits and were established previously as a part of the air quality impact analyses performed for the first Title V permit issuance in 2012 that did not evaluate the 1-hour National Ambient Air Quality Standards (NAAQS). Short-term emissions from cement kilns can vary significantly, therefore this application seeks to revise these hourly limits. This application seeks to modify the short-term (i.e., lb/hr) NO_x, SO₂, and CO emission limits to be based on stack test data from various sources as detailed in Section 2.

ATC requirements are outlined in Section 20.11.41.2 of the New Mexico Administrative Code (NMAC). This application is being submitted in accordance with the construction permit regulations of 20.11.41 NMAC. Regulatory applicability for the project is discussed further in Section 4.

GCC will pay necessary fees according to the schedule as defined by NMAC 20.11.2. The completed fee checklist form and application form are included in Appendix A. Detailed emission calculations and other associated documents are included in Appendix D.

¹ 40 CFR 63.1340 and 40 CFR 63.2

2. PROJECT DESCRIPTION

As part of this project, GCC plans to update the short-term emission limits for kilns. This update includes modifying lb/hr NO_x, SO₂, and CO emission limits, while annual values remain unchanged. PM and VOC emissions also remain unchanged with this modification. GCC's proposal for changes is described in detail in this section.

2.1 Updates to Kiln Short-Term Emission Limits

GCC proposes to update the short-term emission limits for NO_x, SO₂, and CO for both kilns at the Facility. Current emission limits in Permit Condition 5.1.1 of the Title V Permit are based on an average hourly emission limit derived from the annual emission limits and were established previously as a part of the air quality impact analyses performed for the first Title V permit issuance in 2012 that did not evaluate the 1-hour National Ambient Air Quality Standards (NAAQS). Short-term emissions from cement kilns can vary significantly.² Factors that affect emissions are combustion temperature, fuel content and feed rate, raw material content and feed rate, and excess oxygen required for the clinker production.³ Because these parameters are not in a steady state, the corresponding formation of emissions can change rapidly during clinker production causing significant variability in short-term emissions.

Therefore, the currently permitted average hourly emission limits need to incorporate the inherent variability of cement kilns for the proposed 1-hour emission limits. Based on a review of available facility stack test data, published by the U.S. Environmental Protection Agency (EPA), Portland Cement Association (PCA) emissions data, and data specific to GCC's other kilns in Texas (TX), South Dakota (SD), Montana (MT), and Colorado (CO); short-term emission limits are proposed to incorporate variability in NO_x, SO₂, and CO hourly emissions for the Tijeras kilns. These proposed limits also demonstrate and ensure compliance with the applicable air quality standards. Additional details are provided in Section 3.1. There are no physical changes in kiln operations or currently permitted long-term emission rates.

² Walter Greer and Curtis Lesslie, Variability of NO_x Emissions from Precalciner Cement Kiln Systems, 2004.

³ Walters, May, Johnson, Macmann, and Woodward, Time-Variability of NO_x Emissions from Portland Cement Kilns, 1999.

3. EMISSION CALCULATIONS

This section details emissions calculations for sources with proposed updates as part of this application. Emissions calculations are only described for Facility sources where emission calculation changes impact the proposed permitted emission rate.

3.1 Refinement of Kiln Emission Rate Limits

There are no physical changes or changes in method of operations for both kilns as part of this project. There are also no changes in the currently permitted long-term emission limits of both kilns. The proposed short-term emission limits for the kilns are provided in Table 3-1 and Table 3-2 below.

Table 3-1. Current and Proposed Emission Limits for Kilns

Pollutant	Current Limit (lb/hr)	Proposed Limit (lb/hr)	Change (lb/hr)
NO_x	353.85	975.00	621.15
SO₂	330.26	193.60	-136.66
CO	337.00	1,348.00	1,011.00

Table 3-2. Updates being requested to Section 5.1.1 of permit

Emission Unit	NO _x lb/hr	NO _x tpy	CO lb/hr	CO tpy	SO ₂ lb/hr	SO ₂ tpy
5-3 ¹	353.85 975.00	1,518.87	337 1,348.00	1,446.54	330.26 193.60	848.18
5-4 ¹						
5-5 ¹						
5-6 ¹						
5-7 ¹						
5-8 ¹						
5-9 ¹						
5-10 ¹						
6-1 ¹						
6-2 ¹						

¹ Consistent with the current Title V permit #0532-RN1, exhausts from Clunker Cooler #1 and #2, Kiln #1 and #2 have been combined. Compliance with Kiln (lb/hr) limits for NO_x, CO, and SO₂ shall be demonstrated with annual emission testing in accordance with Condition 5.8.8.

In order to develop and propose short-term emission rate limits for 1-hour averaging period, the inherent variability in NO_x, SO₂, and CO emissions from cement kilns was reviewed as a part of this request. These proposed limits provide adequate operational flexibility to Tijeras kilns and ensure compliance with the applicable federal and state air quality standards. There is no physical change or change in method of operations of both kilns because of this request. GCC will continue demonstrating compliance with the proposed short-term emission limits for NO_x, CO, SO₂ by performing annual emission testing in accordance with the Permit Condition 5.8.8.

3.1.1 Proposed NO_x Short-Term Limit

NO_x emissions from cement kilns can vary significantly.⁴ U.S. EPA and PCA have published many papers documenting the inherent variability of NO_x emissions from cement kilns. Factors that affect NO_x emissions are combustion temperature, fuel content and feed rate, raw material content and feed rate, and excess oxygen required for the clinker production.⁵ Because these parameters are not in a steady state, the corresponding formation of emissions can change rapidly during clinker production causing significant variability in short-term emissions.

GCC reviewed historical NO_x emission data available from 2016-2020 annual stack tests;

Table 3-3 below summarizes emissions observed during the tests on a pound per hour (lb/hr) basis. As shown in the tables, NO_x emissions are highly variable, which is typical for cement kilns as noted in U.S. EPA and PCA documents.

Table 3-3. NO_x Stack Test Data

	Hourly Emissions (lb/hr)			
	Min	Max	Average	Limit
2016	244.6	302.1	268.0	353.85
2017	245.3	345.6	300.3	353.85
2018	200.1	208.8	204.5	353.85
2019	235.1	417.7	309.8	353.85
2020	193.4	287.2	236.6	353.85
Minimum Value	193.4			
Maximum Value		417.7		

As shown above in the table, GCC only has 15-20 short-term NO_x emission data points for the Tijeras Kilns. Stack testing is typically performed during stable kiln operating conditions. These operating conditions do not reflect higher NO_x emissions that may typically be observed during start-up, shutdown, or other unstable operating conditions, which are inherent to any older kilns similar to those at the Tijeras facility. Therefore, GCC also reviewed available NO_x emission data from other publicly available sources, shown in Table 3-4.^{6,7}

Table 3-4. U.S. EPA Published NO_x Emissions Data for Long-Dry Kilns

Data Source	NO _x Emissions (lb/ton)		
	Min	Max	Average
AP-42	1.9	3.8	2.9
AP-42	14	15	14
AP-42	4.5	14	9.2

⁴ Walter Greer and Curtis Lesslie, Variability of NO_x Emissions from Precalciner Cement Kiln Systems, 2004.

⁵ Walters, May, Johnson, Macmann, and Woodward, Time-Variability of NO_x Emissions from Portland Cement Kilns, 1999.

⁶ The U.S. EPA AP-42 Chapter 11 Emission Factor Background Information document for the Portland Cement Manufacturing: <https://www.epa.gov/sites/default/files/2020-10/documents/b11s06.pdf>

⁷ The U.S. EPA Alternative Control Techniques Document Update - NO_x Emissions from New Cement Kilns: https://www3.epa.gov/ttnecat1/dir1/cement_updt_1107.pdf

NO_x Emissions (lb/ton)			
Data Source	Min	Max	Average
AP-42	NA	NA	5.8
AP-42	3.4	5.8	4.3
AP-42	4.5	7.3	5.5
AP-42	6	6.6	6.3
AP-42	6.5	6.9	6.7
AP-42	3.4	10	6.7
2007 ACT	6.1	10.5	8.6
Average (lb/ton)			7.0
Standard Deviation (lb/ton)			3.1

To develop a 1-hour emission limit, the average emission factors shown above must incorporate a value of variability added to the average emission factors. The appropriate hourly limit for NO_x emissions over a 1-hour period can be determined by adding three times the estimated standard deviation to the average emission factors published by the U.S. EPA. The addition of three standard deviations typically provides 99.7% confidence for all values within a data set.⁸ GCC proposes to use 2.43 standard deviations or a short-term emission factor of 14.47 lb/ton (7 lb/ton + 2.43*3.1 lb/ton). Using the permitted clinker production rate of 67.4 tons per hour and this short-term emission factor of 14.47 lb/ton results in a proposed short-term emission limit of 975 lb/hr. Please note that the current long-term permitted emission limit of 353.9 lb/hr is based on an emission factor of 5.25 lb/ton, which is lower than the average of available emission factors.

Based on the results from the January 2023 air quality impact analyses performed, the proposed short-term emission limit for NO_x, also ensures compliance with the applicable air quality standards.

3.1.2 Proposed SO₂ Short-Term Limit

Similar to NO_x emissions from cement kilns, SO₂ can vary significantly.⁹ U.S. EPA and Portland Cement Association (PCA) have published many papers documenting inherent variability of SO₂ emissions from cement kilns. Sulfur in cement kilns is derived from both kiln feed and kiln fuel. Depending on the temperature, excess oxygen (O₂) level, alkali level, chloride level, presence of carbon monoxide (CO) and/or other reducing species, and a number of other controlling factors, the forms of sulfur in the various zones of the cement kiln system can be highly variable. The fate of sulfur in a cement kiln system is dictated both by energy considerations (thermodynamics) and also by reaction rates (kinetics).¹⁰ Because these parameters are not in a steady state, the corresponding formation of emissions can change rapidly during clinker production causing significant variability in short-term emissions.

GCC reviewed historical SO₂ emission data available from 2016-2020 annual stack tests and Table 3-5 below summarizes emissions observed during the tests on a pound per hour (lb/hr) basis. As shown in the tables, SO₂ emissions are highly variable, which is typical for cement kilns as noted in U.S. EPA and PCA documents.

⁸ Standard deviation and confidence intervals: https://en.wikipedia.org/wiki/68%E2%80%939395%E2%80%939399.7_rule

⁹ Formation and Techniques for Control of Sulfur Dioxide and Other Sulfur Compounds in Portland Cement Kiln Systems: https://www.penta.net/wp-content/uploads/2021/07/Sulfur_Control_Techniques_In_Cement_Kilns.pdf.

¹⁰ Ibid.

Table 3-5. SO₂ Stack Test Data

	Hourly Emissions (lb/hr)			
	Min	Max	Average	Limit
2016	19.0	22.3	20.6	330.26
2017	66.1	124.0	88.8	330.26
2018	26.2	38.3	31.5	330.26
2019	0.5	2.0	1.1	330.26
2020	1.4	2.3	1.9	330.26
Minimum Value	0.5			
Maximum Value		124.0		

As shown above in the table, GCC only has 15-20 short-term SO₂ emission data points for the Tijeras Kilns. Stack testing is typically performed during stable kiln operating conditions. These operating conditions do not reflect higher SO₂ emissions typically observed during start-up, shutdown, or other unstable operating conditions, which are inherent to any older kilns similar to those at the Tijeras facility. Therefore, GCC also reviewed available SO₂ emission data from other publicly available sources.^{11,12}

Table 3-6. U.S. EPA Published SO₂ Emissions Data for Long-Dry Kilns

SO ₂ Emissions (lb/ton)			
Data Source	Min	Max	Average
AP-42	22	33	27
AP-42	0.16	0.022	0.092
AP-42	3.7	7	5.4
AP-42	0.16	0.81	0.38
AP-42	0.26	0.54	0.4
AP-42	3.8	10	6.7
AP-42	0.019	0.9	0.24
Average (lb/ton)			5.74
Standard Deviation (lb/ton)			9.77

To develop a 1-hour emission limit, the average emission factors shown above must incorporate a value of variability added to the average emission factors. The appropriate hourly limit for SO₂ emissions over a 1-hour period can be determined by adding three times the estimated standard deviation to the average emission factors published by the U.S. EPA. The addition of three standard deviations typically provides 99.7% confidence for all values within a data set.¹³

GCC would have proposed to use a minimum standard deviation of 2.43 or a short-term emission factor of 29 lb/ton or ~2,000 lb/hr emission limit, which would be higher than the currently permitted long-term

¹¹ The U.S. EPA AP-42 Chapter 11 Emission Factor Background Information document for the Portland Cement Manufacturing: <https://www.epa.gov/sites/default/files/2020-10/documents/b11s06.pdf>

¹² The U.S. EPA Alternative Control Techniques Document Update - NO_x Emissions from New Cement Kilns: https://www3.epa.gov/ttnecat1/dir1/cement_updt_1107.pdf

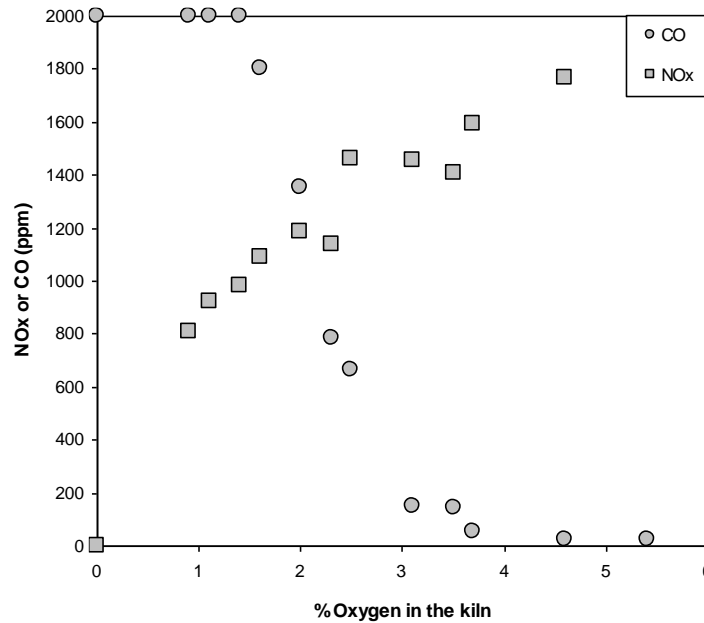
¹³ Standard deviation and confidence intervals: https://en.wikipedia.org/wiki/68%E2%80%939395%E2%80%939399.7_rule

emission factor of 4.9 lb/ton or 330.3 lb/hr. However, GCC proposes a reduction in the short-term emission limit for SO₂ with a new limit of 193.6 lb/hr based on the results from the air quality impact analyses completed in January of 2023.

3.1.3 Proposed CO Short-Term Limit

CO emissions from a kiln system are a combination of CO generated during the combustion of fuel and CO generated from partial oxidation of organics in the raw material. Excess air above the stoichiometric ratio of oxygen to fuel in combustion reactions reduces CO emissions by oxidizing CO to CO₂. Cement kilns require a large amount of excess air for proper operation. Oxidizing conditions in the burning zone of the kiln are necessary for producing quality clinker, because high levels of O₂ and low levels of CO tend to stabilize alkali and calcium sulfates.¹⁴ Figure 3-1 shows the relation between percent oxygen in the kiln and concentrations of CO and NO_x in the kiln. It can be seen from this figure that as the percent oxygen increases in the kiln, concentration of CO decreases, while concentration of NO_x increases significantly.

Figure 3-1. Effects of Excess Oxygen on Concentrations of CO and NO_x in Cement Kilns¹⁵



Therefore, similar to NO_x emissions from cement kilns, CO emission can vary significantly as well. U.S. EPA and PCA have not published many papers documenting the inherent variability of CO emissions from cement kilns.

GCC reviewed historical CO emission data available from 2016-2020 annual stack tests and Table 3-7 below summarizes emissions observed during the tests on a pound per hour (lb/hr) basis. As shown in the tables, CO emissions are highly variable, which is typical for cement kilns.

¹⁴ Miller, F. M., Young, G. L., and von Seebach, M. "Formation and Techniques for Control of Sulfur Dioxide and Other Sulfur Compounds in Portland Cement Kilns." Portland Cement Association, Skokie, IL, 2001.

¹⁵ Hansen E., "The use of carbon monoxide and other gases for process control", IEEE Transactions on Industrial Applications, v IA-22, n 2, pp 338-344, 1986.

Table 3-7. CO Stack Test Data

	Hourly Emissions (lb/hr)			
	Min	Max	Average	Limit
2016	64.7	69.1	67.3	337
2017	196.7	324.9	271.4	337
2018	37.9	49.4	42.6	337
2019	19.6	21.5	20.6	337
2020	29.1	32.6	31.1	337
Minimum Value	19.6			
Maximum Value		324.9		

As shown above in the table, GCC only has 15-20 short-term CO emission data points for the Tijeras Kilns. Stack testing is typically performed during stable kiln operating conditions. These operating conditions do not reflect higher CO emissions typically observed during start-up, shutdown, or other unstable operating conditions, which are inherent to any older kilns similar to those at the Tijeras facility. As noted earlier, the U.S. EPA and PCA have not published detailed CO emissions data. Therefore, GCC reviewed available CO emission data from GCC's own kilns in Texas, South Dakota, Montana, and Colorado.

GCC's South Dakota (SD) kiln is an older kiln with a 1-hour emission limit of 3,250 lb/hr for CO which was established based on allowable CO short-term emissions levels to demonstrate compliance with the National Ambient Air Quality Standards for CO. Note that this is the only GCC kiln in North America with a CO CEMS that has a short-term hourly CO limit. The hourly clinker production rate for this SD kiln is approximately 162.5 tons/hr. This provides a 1-hour emission factor of 20 lb/ton. GCC proposes to apply this same 20 lb/ton emission factor to the Tijeras kilns.

The South Dakota kiln is equipped with CEMS that monitor and record the actual lb/hr emission rates of CO each hour. The hourly clinker production is also recorded. CEMS and production data from May 1, 2016 through June 8, 2021 was included in Appendix F of this application. The South Dakota kiln data shows wide variability in the CO lb/ton of clinker emissions, which is expected because of unstable conditions during startup, shutdown, and kiln upset conditions. Table 3-8 summarizes CO CEMS data from the GCC South Dakota kiln.

Table 3-8. GCC South Dakota Kiln Yearly CO lb/ton Summary Data

Year	Valid hours	CO lb/ton of clinker			
		Min.	Max.	Average	SD
2016	5,117	0.011	18.8	1.84	0.878
2017	7,603	0.005	155.3	2.48	2.967
2018	5,051	0.002	94.7	2.81	3.027
2019	6,071	0.002	590.6	2.85	8.467
2020	4,831	0.007	409.3	3.23	9.429
2021	2,423	0.003	173.1	3.03	4.897

This demonstrates that although the average CO lb/ton emissions are relatively stable, there is significant variation in the maximum CO lb/ton emissions observed, as well as a high standard deviation in relation to the average (high coefficient of variation). The frequency of high CO lb/ton emissions is also relevant to justify the ongoing nature of variability, which is detailed in Table 3-9 below.

Table 3-9. GCC South Dakota Kiln CO Emissions Frequency Distribution

CO lb/ton of clinker		Number of Occurrences						
Bin Min.	Bin Max.	2016	2017	2018	2019	2020	2021	Total
1000	100	0	3	0	2	7	1	13
100	75	0	0	2	1	1	2	6
75	50	0	0	2	1	1	3	7
50	25	0	8	7	5	26	3	49
25	20	0	0	6	6	1	0	13
20	15	3	5	13	9	2	5	37
15	10	4	17	25	16	18	5	85
10	5	49	167	275	182	119	68	860
5	0	5,061	7,403	4,721	5,849	4,656	2,336	30,026

The above distribution demonstrates that the South Dakota kiln consistently experiences a wide range of variability in CO lb/ton clinker emissions. Using the currently permitted clinker production rate of 67.4 tons per hour for Tijeras kilns and the GCC South Dakota calculated short-term emission factor of 20 lb/ton results in a proposed short-term CO emission limit of 1,348 lb/hr. Please note that the current short-term permitted emission limit of 337 lb/hr is based on an emission factor of 5 lb/ton, which is not reflective of the variability in the short-term CO emissions from the kiln. GCC proposes to use a CO emission factor of 20 lb/ton of clinker due to the variable nature of actual CO emissions. Data from the South Dakota kiln may justify a higher factor, but this 20 lb/ton factor is proposed for Tijeras because the resulting 1,348 lb/hr CO emission rate allows for compliance with New Mexico Ambient Air Quality Standards.

Considering the inherent variability in cement kilns to allow GCC operational variability in 1-hour period, GCC is proposing emission rates shown in Table 3-10 as new short-term emission limits for the kilns. As shown below in the table, GCC requests an increase in short-term emissions of NO_x and CO but a decrease in short-term emissions of SO₂.

Table 3-10. Current and Proposed Emission Limits

Pollutant	Current Limit (lb/hr)	Proposed Limit (lb/hr)	Change (lb/hr)
NO_x	353.85	975.00	621.15
SO₂	330.26	193.60	-136.66
CO	337.00	1,348.00	1,011.00

4. REGULATORY APPLICABILITY

Pursuant to NMAC 20.11.42.12(A)(4)(g), applicable requirements are outlined below. Pursuant to NMAC 20.11.42.12(A)(4)(h), GCC is not proposing or seeking any exemptions from otherwise applicable requirements. Below are the applicable regulatory requirements for Facility. A summary of the applicable requirements for the Facility is provided in Table 4-1 below. Conditions of the permit shall be deemed to be in compliance with all applicable requirements existing as of the date of permit issuance. There have not been any changes in the applicability status of these regulations except as noted later in this section.

4.1 LIST OF CURRENT APPLICABLE RULES

Table 4-1. Applicable Regulatory Requirements for the Facility

Applicable Requirements	Federally Enforceable	Entire Facility
20.11.02 NMAC Permit Fees	X	X
20.11.05 NMAC Visible Air Contaminants	X	X
20.11.08 NMAC Ambient Air Quality Standards		X
20.11.20 NMAC Fugitive Dust Control	X	X
20.11.40 NMAC Source Registration	X	X
20.11.42 NMAC Operating Permits		X
20.11.67 NMAC Equipment, Emissions, Limitations	X	
20.11.90 NMAC Administration, Enforcement, Inspection	X	X
40 CFR 50 National Ambient Air Quality Standards	X	X
40 CFR 51 Requirements for Preparation, Adoption, and Submittal of Implementation Plans	X	X
40 CFR 60, Subpart F	X	
40 CFR 60.62 Standards	X	
40 CFR 60.63 Monitoring of Operations	X	
40 CFR 60.64 Test Methods and Procedures	X	
40 CFR 60.65 Recordkeeping and Reporting Requirements	X	
40 CFR 60, Subpart Y	X	
40 CFR 60.254 Standards for Coal Processing and Conveying Equipment, Coal Storage Systems, Transfer and Loading Systems, and Open Storage Piles		
40 CFR 60.255 Performance Tests and Other Compliance Requirements.		
40 CFR 60.256 Continuous Monitoring Requirements.		
40 CFR 60.257 Test Methods and Procedures.		
40 CFR 60.258 Reporting and Recordkeeping.		
40 CFR 63, Subpart LLL	X	
40 CFR 63.1343 What Standards Apply to my Kilns, Clinker Coolers, Raw Material; Dryers, and Open Clinker Storage Piles?	X	
40 CFR 63.1345 Emissions Limits for Affected Sources Other than Kilns; Clinker Coolers; New and Reconstructed Raw Material Dryers	X	
40 CFR 63.1346 Operating Limits for Kilns	X	
40 CFR 63.1347 Operation and Maintenance Plan Requirements	X	
40 CFR 63.1348 Compliance Requirements	X	
40 CFR 63.1349 Performance Testing Requirements	X	
40 CFR 63.1350 Monitoring Requirements	X	
40 CFR 63.1351 Compliance Dates	X	

Applicable Requirements	Federally Enforceable	Entire Facility
40 CFR 63.1353 Notification Requirements	X	
40 CFR 63.1354 Reporting requirements	X	
40 CFR 63.1355 Recordkeeping requirements	X	
40 CFR 63, Subpart CCCCCC	X	
40 CFR 63.11116 Requirements for Facilities with Monthly Throughput of Less than 10,000 Gallons of Gasoline	X	
PSD Permit PSD-NM-12	X	
Authority to Construct Permits #0043, #0044, and #2197	X	
Source Registration #2195	X	
Fugitive Dust/Particulate Emissions Control Plan for Mining and Processing Activities	X	X
20.11.23 NMAC Stratospheric Ozone Protection		X
20.11.41 NMAC Construction Permits	X	X
20.11.46 NMAC Sulfur Dioxide Emissions Inventory Requirements: Western Backstop Sulfur Dioxide Trading Program		X
20.11.47 NMAC Emissions Inventory Requirements		X
20.11.61 NMAC Prevention of Significant Deterioration	X	X
20.11.63 NMAC New Source Performance Standards for Stationary Sources	X	X
20.11.64 NMAC Emission Standards for Hazardous Air Pollutants for Stationary Sources	X	X
20.11.65 NMAC Volatile Organic Compounds	X	X
20.11.66 NMAC Process Equipment	X	X
40 CFR 64 Compliance Assurance Monitoring	X	X
40 CFR 82 Stratospheric Ozone Protection	X	X
40 CFR 98 Subpart H – Cement Production (GHG Reporting)	X	X

4.2 NSPS Applicability

40 CFR Subpart F sets the NSPS for Portland Cement plants. Per 40 CFR 60.60(b), any Portland Cement facility that commences construction or modification after August 17, 1971 is subject to this regulation. Modification is defined by 40 CFR 60.2 as “any physical change in, or change in the method of operation of, an existing facility which increases the amount of any air pollutant (to which a standard applies) emitted to the atmosphere”. The proposed modification will not involve any physical modifications or changes in method of operation of the kilns. Previous lb/hr emissions were based on an annualized average (i.e., annual rate assuming continuous operation used to calculate short term emissions). However, as noted in the previous section, short term emissions from the kilns are inherently variable. This application seeks to update the representation of these hourly emissions, but there are no proposed physical changes or changes to method of operation of the kilns. As such, a modification is not triggered, and the kilns continue to remain not subject to this subpart.

4.3 NESHAP Applicability

40 CFR 63 Subpart LLL, also known as PC MACT, sets the NESHAP for the Portland Cement industry. Per 40 CFR 63.1340, the provisions of the subpart apply to each new and existing Portland Cement plant which is a major or area source, and the affected sources include each kiln including alkali bypasses and inline coal mills. The kilns at this facility are subject to this regulation and will remain in compliance with the applicable standards set forth in the subpart. This project also does not propose any changes to regulated pollutants

under Subpart LLL (i.e., only NO_x and CO emissions are increasing and SO₂ emissions are decreasing, none of which are subject to the requirements of Subpart LLL).

4.4 PSD Applicability

The proposed project at the Tijeras Plant will result in increases of NO_x and CO and decreases in SO₂ emissions. However, these increases are only to the short-term (i.e., lb/hr) emissions. Since the Tijeras Plant is an existing major source with respect to PSD review, the project emissions changes associated with the proposed project would traditionally be compared to the significant emission rate (SER) for each pollutant in order to determine PSD applicability (i.e., to determine if the proposed project is a major modification). As the emission modifications only affect lb/hr emissions and the SERs are annualized (tpy), GCC proposes that the project emissions are not significant as there are no tpy emission changes to compare to the SER. There are no resulting changes to Projected Actual Emissions (PAE) or requirement to look back at Baseline Actual Emissions (BAE) since both are in units of ton per year. As such, PSD review is not triggered, and no further evaluation is required.

5. OPERATION PLAN

GCC currently maintains an O&M plan for all sources of emission on site. The plan describes best practices and details to minimize emissions during routine startup, shutdown, maintenance, and malfunction. Excerpts from applicable sections are included herein. The complete plan can be provided upon request from the department.

**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.

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

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

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

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

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

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

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

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

**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
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

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.

**OPERATIONS AND MAINTENANCE PLAN
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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

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

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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GCC RIO GRANDE, INC. TIJERAS PLANT**

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

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

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

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

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
GCC RIO GRANDE, INC. TIJERAS PLANT**

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

6. DISPERSION MODELING AND ANALYSIS OF ALLOWABLE EMISSIONS

Complete air dispersion modeling was submitted to the EHD in January 2023, which included the proposed changes in lb/hr emissions to the kilns. The modeling demonstrated compliance with all applicable National and New Mexico Ambient Air Quality Standards (NAAQS/NMAAQs). As such, modeling is not included in this application.

APPENDIX A. PERMIT APPLICATION FORMS & CHECKLIST

Applications for Air Pollutant Sources in Bernalillo County Source Registration (20.11.40 NMAC) and Construction Permits (20.11.41 NMAC).

Permit Application Checklist

Permit Application Review Fee Checklist.



**City of Albuquerque – Environmental Health Department
Air Quality Program**



Please mail this application to **P.O. Box 1293, Albuquerque, NM 87103**
or hand deliver between 8:00 am – 5:00 pm Monday – Friday to:
3rd Floor, Suite 3023 – One Civic Plaza NW, Albuquerque, NM 87102
(505) 768-1972 aqd@cabq.gov

**Application for Air Pollutant Sources in Bernalillo County
Source Registration (20.11.40 NMAC) and Construction Permits (20.11.41 NMAC)**

Submittal Date: July 12, 2023

Owner/Corporate Information Check here and leave this section blank if information is exactly the same as Facility Information below.

Company Name: GCC Rio Grande, Inc.			
Mailing Address: P.O. Box 100	City: Tijeras	State: NM	Zip: 87059
Company Phone: (505) 281-3311	Company Contact: Samantha Kretz		
Company Contact Title: Environmental Engineer	Phone: (505) 286-6081	E-mail: skretz@gcc.com	

Stationary Source (Facility) Information: Provide a plot plan (legal description/drawing of the facility property) with overlay sketch of facility processes, location of emission points, pollutant type, and distances to property boundaries.

Facility Name: GCC Rio Grande, Inc. - Tijeras Plant			
Facility Physical Address: 11783 State Hwy 337	City: Tijeras	State: NM	Zip: 87059
Facility Mailing Address (if different): N/A	City: N/A	State: N/A	Zip: N/A
Facility Contact: Samantha Kretz	Title: Environmental Engineer		
Phone: (505) 286-6081	E-mail: skretz@gcc.com		
Authorized Representative Name ¹ : Ramses Maldonado	Authorized Representative Title: Plant Manager		

Billing Information Check here if same contact and mailing address as corporate Check here if same as facility

Billing Company Name:			
Mailing Address:	City:	State:	Zip:
Billing Contact:	Title:		
Phone:	E-mail:		

Preparer/Consultant(s) Information Check here and leave section blank if no Consultant used or Preparer is same as Facility Contact.

Name: Michael Celente	Title: Managing Consultant		
Mailing Address: 9400 Holly Ave NE, Bldg. 3, Ste. B	City: Albuquerque	State: NM	Zip: 87122
Phone: (505) 266-6611	Email: MCelente@trinityconsultants.com		

1. See 20.11.41.13(E)(13) NMAC.

**Application for Air Pollutant Sources in Bernalillo County
Source Registration (20.11.40 NMAC) and Construction Permits (20.11.41 NMAC)**

General Operation Information (if any question does not pertain to your facility, type N/A on the line or in the box)

Permitting action being requested (please refer to the definitions in 20.11.40 NMAC or 20.11.41 NMAC):				
<input checked="" type="checkbox"/> New Permit	<input type="checkbox"/> Permit Modification Current Permit #:	<input type="checkbox"/> Technical Permit Revision Current Permit #:	<input type="checkbox"/> Administrative Permit Revision Current Permit #:	
<input type="checkbox"/> New Registration Certificate	<input type="checkbox"/> Modification Current Reg. #:	<input type="checkbox"/> Technical Revision Current Reg. #:	<input type="checkbox"/> Administrative Revision Current Reg. #:	
UTM coordinates of facility (Zone 13, NAD 83): 373,180 m E, 3,881,650 m N				
Facility type (<i>i.e.</i> , a description of your facility operations): Portland Cement Production Facility				
Standard Industrial Classification (SIC Code #): 3241		North American Industry Classification System (NAICS Code #): 327310		
Is this facility currently operating in Bernalillo County? Yes		If YES , list date of original construction: <1974 If NO , list date of planned startup:		
Is the facility permanent? Yes		If NO , list dates for requested temporary operation: From N/A Through N/A		
Is the facility a portable stationary source? No		If YES , is the facility address listed above the main permitted location for this source? N/A		
Is the application for a physical or operational change, expansion, or reconstruction (<i>e.g.</i> , altering process, or adding, or replacing process or control equipment, etc.) to an existing facility? Yes				
Provide a description of the requested changes: Modification of short-term emission limits for NOx, CO, and SO2 for kiln. For more details, please refer to Section 2 of the application.				
What is the facility's operation? <input checked="" type="checkbox"/> Continuous <input type="checkbox"/> Intermittent <input type="checkbox"/> Batch				
Estimated percent of production/operation:	Jan-Mar: 25	Apr-Jun: 25	Jul-Sep: 25	Oct-Dec: 25
Requested operating times of facility:	24 hours/day	7 days/week	4.33 weeks/month	12 months/year
Will there be special or seasonal operating times other than shown above? This includes monthly- or seasonally-varying hours. No				
If YES , please explain: N/A				
List raw materials processed: Limestone, iron, alumina, sandstone, gypsum, pumice				
List saleable item(s) produced: Clinker and cement				

USE INSTRUCTIONS: For the forms on the following pages, please do not alter or delete the existing footnotes or page breaks. If additional footnotes are needed then add them to the end of the existing footnote list for a given table. Only update the rows and cells within tables as necessary for your project. Unused rows can be deleted from tables. If multiple scenarios will be represented then the Uncontrolled and Controlled Emission Tables, and other tables as needed, can be duplicated and adjusted to indicate the different scenarios.

**Application for Air Pollutant Sources in Bernalillo County
Source Registration (20.11.40 NMAC) and Construction Permits (20.11.41 NMAC)**

Regulated Emission Sources Table

(E.g., Generator-Crusher-Screen-Conveyor-Boiler-Mixer-Spray Guns-Saws-Sander-Oven-Dryer-Furnace-Incinerator-Haul Road-Storage Pile, etc.) Match the Units listed on this Table to the same numbered line if also listed on Emissions Tables & Stack Table.

Unit Number and Description ¹	Manufacturer	Model #	Serial #	Manufacture Date	Installation Date	Modification Date ²	Process Rate or Capacity (Hp, kW, Btu, ft ³ , lbs, tons, yd ³ , etc.) ³	Fuel Type
5-3	N/A	N/A	N/A	<1974	<1974	N/A	578,616 ton/yr (Clinker production)	N/A
5-4								
5-5								
5-6								
5-7								
5-8								
5-9								
5-10								
6-1								
6-2								
							/	
							/	
							/	
							/	
							/	

NOTE: To add extra rows in Word, click anywhere in the last row. A plus (+) sign should appear on the bottom right corner of the row. Click the plus (+) sign to add a row. Repeat as needed.

- Unit numbers must correspond to unit numbers in the previous permit unless a complete cross reference table of all units in both permits is provided.
- To determine whether a unit has been modified, evaluate if changes have been made to the unit that impact emissions or that trigger modification as defined in 20.11.41.7(U) NMAC. If not, put N/A.
- Basis for Equipment Process Rate or Capacity (e.g., Manufacturer's Data, Field Observation/Test, etc.) **Manufacture's Data**
Submit information for each unit as an attachment.

**Application for Air Pollutant Sources in Bernalillo County
Source Registration (20.11.40 NMAC) and Construction Permits (20.11.41 NMAC)**

Emissions Control Equipment Table

Control Equipment Units listed on this Table should either match up to the same Unit number as listed on the Regulated Emission Sources, Controlled Emissions and Stack Parameters Tables (if the control equipment is integrated with the emission unit) or should have a distinct Control Equipment Unit Number and that number should then also be listed on the Stack Parameters Table.

Control Equipment Unit Number and Description		Controlling Emissions for Unit Number(s)	Manufacturer	Model # Serial #	Date Installed	Controlled Pollutant(s)	% Control Efficiency ¹	Method Used to Estimate Efficiency	Rated Process Rate or Capacity or Flow
0201-042	#1 Baghouse, Glass, 1280 Bags, #2 Baghouse, Glass, 1280 Bags	5-3 to 5-10, 6-1 and 6-2	N/A	N/A	1959	PM ₁₀ , PM _{2.5}	99.9%	Manufacturer's Data	N/A
0201-043				N/A	1959	PM ₁₀ , PM _{2.5}			

NOTE: To add extra rows in Word, click anywhere in the last row. A plus (+) sign should appear on the bottom right corner of the row. Click the plus (+) sign to add a row. Repeat as needed.

1. Basis for Control Equipment % Efficiency (e.g., Manufacturer's Data, Field Observation/Test, AP-42, etc.). **Manufacturer's Data**
Submit information for each unit as an attachment.

**Application for Air Pollutant Sources in Bernalillo County
Source Registration (20.11.40 NMAC) and Construction Permits (20.11.41 NMAC)**

Uncontrolled Emissions Table

(Process potential under physical/operational limitations during a 24 hr/day and 365 day/year = 8760 hrs)

Regulated Emission Units listed on this Table should match up to the same numbered line and Unit as listed on the Regulated Emissions and Controlled Tables. List total HAP values per Emission Unit if overall HAP total for the facility is ≥ 1 ton/yr.

Unit Number *	Nitrogen Oxides (NO _x)		Carbon Monoxide (CO)		Nonmethane Hydrocarbons/Volatile Organic Compounds (NMHC/VOCs)		Sulfur Dioxide (SO ₂)		Particulate Matter ≤ 10 Microns (PM ₁₀)		Particulate Matter ≤ 2.5 Microns (PM _{2.5})		Hazardous Air Pollutants (HAPs)		Method(s) used for Determination of Emissions (AP-42, Material Balance, Field Tests, etc.)
	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	
5-3	975.00	1518.87	1348.00	1446.54	15.50	66.54	193.60	848.18	14,828.00	48,709.98	7,804.21	25,636.83	--	--	PM ₁₀ hourly emissions are calculated to demonstrate compliance with the MACT limit of 0.1 lb PM ₁₀ per ton of kiln feed from each clinker cooler system. Each clinker cooler system is controlled by four DC sub-units (5-3 through 5-6 for Clinker Cooler #1 and 5-7 through 5-10 for Clinker Cooler #2). A kiln feed to clinker ratio of 1.65 was used. Uncontrolled emissions calculated assuming a Dust Collector efficiency of 99.9%, obtained from reported control efficiency in July 13, 2004 Title V Operating Permit Application Form.
5-4															
5-5															
5-6															
5-7															
5-8															
5-9															
5-10															
6-1															
6-2															
Totals of Uncontrolled Emissions	975.00	1518.87	1348.00	1446.54	15.50	66.54	193.60	848.18	14,828.00	48,709.98	7,804.21	25,636.83	--	--	

NOTE: To add extra rows in Word, click anywhere in the second-to-last row. A plus (+) sign should appear on the bottom right corner of the row. Click the plus (+) sign to add a row. Repeat as needed.

*A permit is required and this application along with the additional checklist information requested on the Permit Application checklist must be provided if:

Application for Air Pollutant Sources in Bernalillo County
Source Registration (20.11.40 NMAC) and Construction Permits (20.11.41 NMAC)

- (1) any one of these process units or combination of units, has an uncontrolled emission rate greater than or equal to (\geq) 10 lbs/hr or 25 tons/yr for any of the above pollutants, excluding HAPs, based on 8,760 hours of operation; or
- (2) any one of these process units or combination of units, has an uncontrolled emission rate \geq 2 tons/yr for any single HAP or \geq 5 tons/yr for any combination of HAPs based on 8,760 hours of operation; or
- (3) any one of these process units or combination of units, has an uncontrolled emission rate \geq 5 tons/yr for lead (Pb) or any combination of lead and its compounds based on 8,760 hours of operation; or
- (4) any one of the process units or combination of units is subject to an Air Board or federal emission limit or standard.

* If all of these process units, individually and in combination, have an uncontrolled emission rate less than ($<$) 10 lbs/hr or 25 tons/yr for all of the above pollutants (based on 8,760 hours of operation), but $>$ 1 ton/yr for any of the above pollutants, then a source registration is required. A Registration is required, at minimum, for any amount of HAP emissions. Please complete the remainder of this form.

**Application for Air Pollutant Sources in Bernalillo County
Source Registration (20.11.40 NMAC) and Construction Permits (20.11.41 NMAC)**

Controlled Emissions Table

(Based on current operations with emission controls OR requested operations with emission controls)

Regulated Emission Units listed on this Table should match up to the same numbered line and Unit as listed on the Regulated Emissions and Uncontrolled Tables. List total HAP values per Emission Unit if overall HAP total for the facility is ≥ 1 ton/yr.

Unit Number	Nitrogen Oxides (NO _x)		Carbon Monoxide (CO)		Nonmethane Hydrocarbons/Volatile Organic Compounds (NMHC/VOCs)		Sulfur Dioxide (SO ₂)		Particulate Matter ≤ 10 Microns (PM ₁₀)		Particulate Matter ≤ 2.5 Microns (PM _{2.5})		Hazardous Air Pollutants (HAPs)		Control Method	% Efficiency ¹
	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr		
Example 1.	27.7	55.4	9.1	18.2	1.3	2.6	0.5	1.0	2.0	4.0	0.2	0.088	0.2	0.088	Operating Hours	N/A
5-3	975.00	1518.87	1348.00	1446.54	15.50	66.54	193.60	848.18	33.36	48.58	17.88	26.03	--	--	Baghouse for PM	99.9%
5-4																
5-5																
5-6																
5-7																
5-8																
5-9																
5-10																
6-1																
6-2																
Totals of Controlled Emissions	975.00	1518.87	1348.00	1446.54	15.50	66.54	193.60	848.18	33.36	48.58	17.88	26.03	--	--		

NOTE: To add extra rows in Word, click anywhere in the second-to-last row. A plus (+) sign should appear on the bottom right corner of the row. Click the plus (+) sign to add a row. Repeat as needed.

1. Basis for Control Method % Efficiency (e.g., Manufacturer's Data, Field Observation/Test, AP-42, etc.). **Manufacturer's Data**
Submit information for each unit as an attachment.

**Application for Air Pollutant Sources in Bernalillo County
Source Registration (20.11.40 NMAC) and Construction Permits (20.11.41 NMAC)**

Purchased Hazardous Air Pollutant Table*

Product Categories (Coatings, Solvents, Thinners, etc.)	Hazardous Air Pollutant (HAP), or Volatile Hazardous Air Pollutant (VHAP) Primary To The Representative As Purchased Product	Chemical Abstract Service (CAS) Number of HAP or VHAP from Representative As Purchased Product	HAP or VHAP Concentration of Representative As Purchased Product (pounds/gallon, or %)	Concentration Determination (CPDS, SDS, etc.) ¹	Total Product Purchases For Category	(-)	Quantity of Product Recovered & Disposed For Category	(=)	Total Product Usage For Category
N/A – No purchased HAPs associated with Kilns for this application.									
2.						(-)		(=)	lb/yr
									gal/yr
3.						(-)		(=)	lb/yr
									gal/yr
4.						(-)		(=)	lb/yr
									gal/yr
5.						(-)		(=)	lb/yr
									gal/yr
6.						(-)		(=)	lb/yr
									gal/yr
7.						(-)		(=)	lb/yr
									gal/yr
8.						(-)		(=)	lb/yr
									gal/yr
9.						(-)		(=)	lb/yr
									gal/yr
						(-)		(=)	lb/yr
									gal/yr
TOTALS					lb/yr	(-)	lb/yr	(=)	lb/yr
					gal/yr		gal/yr		gal/yr

NOTE: To add extra rows in Word, click anywhere in the second-to-last row. A plus (+) sign should appear on the bottom right corner of the row. Click the plus (+) sign to add a row. Repeat as needed.

NOTE: Product purchases, recovery/disposal and usage should be converted to the units listed in this table. If units cannot be converted please contact the Air Quality Program prior to making changes to this table.

1. Submit, as an attachment, information on one (1) product from each Category listed above which best represents the average of all the products purchased in that Category. CPDS = Certified Product Data Sheet; SDS = Safety Data Sheet

*** A Registration is required, at minimum, for any amount of HAP or VHAP emission.**

Emissions from purchased HAP usage should be accounted for on previous tables as appropriate.

A permit may be required for these emissions if the source meets the requirements of 20.11.41 NMAC.

**Application for Air Pollutant Sources in Bernalillo County
Source Registration (20.11.40 NMAC) and Construction Permits (20.11.41 NMAC)**

Material and Fuel Storage Table

(E.g., Tanks, barrels, silos, stockpiles, etc.)

Storage Equipment	Product Stored	Capacity (bbls, tons, gals, acres, etc.)	Above or Below Ground	Construction (Welded, riveted) & Color	Installation Date	Loading Rate ¹	Offloading Rate ¹	True Vapor Pressure	Control Method	Seal Type	% Eff. ²
N/A – No proposed changes to material or fuel storage as a result of this application.											

NOTE: To add extra rows in Word, click anywhere in the last row. A plus (+) sign should appear on the bottom right corner of the row. Click the plus (+) sign to add a row. Repeat as needed.

1. Basis for Loading/Offloading Rate (e.g., Manufacturer’s Data, Field Observation/Test, etc.). **N/A**
Submit information for each unit as an attachment.
2. Basis for Control Method % Efficiency (e.g., Manufacturer’s Data, Field Observation/Test, AP-42, etc.). **N/A**
Submit information for each unit as an attachment.

**Application for Air Pollutant Sources in Bernalillo County
Source Registration (20.11.40 NMAC) and Construction Permits (20.11.41 NMAC)**

Stack Parameters Table

If any equipment from the Regulated Emission Sources Table is also listed in this Stack Table, use the same numbered line for the emission unit on both tables to show the association between the Process Equipment and its stack.

Unit Number and Description	Pollutant (CO, NOx, PM ₁₀ , etc.)	UTM Easting (m)	UTM Northing (m)	Stack Height (ft)	Stack Exit Temp. (°F)	Stack Velocity (fps)	Stack Flow Rate (acfm)	Stack Inside Diameter (ft)	Stack Type
5-3	Kiln Stack	NO _x , CO, VOC, SO ₂ , PM ₁₀ , PM _{2.5}	372,985 m; 3,881,825 m	175	333	70	399,139	11	Vertical
5-4									
5-5									
5-6									
5-7									
5-8									
5-9									
5-10									
6-1									
6-2									

NOTE: To add extra rows in Word, click anywhere in the last row. A plus (+) sign should appear on the bottom right corner of the row. Click the plus (+) sign to add a row. Repeat as needed.

**Application for Air Pollutant Sources in Bernalillo County
Source Registration (20.11.40 NMAC) and Construction Permits (20.11.41 NMAC)**

Certification

NOTICE REGARDING SCOPE OF A PERMIT: The Environmental Health Department's issuance of an air quality permit only authorizes the use of the specified equipment pursuant to the air quality control laws, regulations and conditions. Permits relate to air quality control only and are issued for the sole purpose of regulating the emission of air contaminants from said equipment. Air quality permits are not a general authorization for the location, construction and/or operation of a facility, nor does a permit authorize any particular land use or other form of land entitlement. It is the applicant's/permittee's responsibility to obtain all other necessary permits from the appropriate agencies, such as the City of Albuquerque Planning Department or Bernalillo County Department of Planning and Development Services, including but not limited to site plan approvals, building permits, fire department approvals and the like, as may be required by law for the location, construction and/or operation of a facility. For more information, please visit the City of Albuquerque Planning Department website at <https://www.cabq.gov/planning> and the Bernalillo County Department of Planning and Development Services website at <https://www.bernco.gov/planning>.

NOTICE REGARDING ACCURACY OF INFORMATION AND DATA SUBMITTED: Any misrepresentation of a material fact in this application and its attachments is cause for denial of a permit or revocation of part or all of the resulting registration or permit, and revocation of a permit for cause may limit the permittee's ability to obtain any subsequent air quality permit for ten (10) years. Any person who knowingly makes any false statement, representation, or certification in any application, record, report, plan or other document filed or required to be maintained under the Air Quality Control Act, NMSA 1978 §§ 74-2-1 to 74-2-17, is guilty of a misdemeanor and shall, upon conviction, be punished by a fine of not more than ten thousand dollars (\$10,000) per day per violation or by imprisonment for not more than twelve months, or by both.

I, the undersigned, hereby certify that I have knowledge of the information and data represented and submitted in this application and that the same is true and accurate, including the information and data in any and all attachments, including without limitation associated forms, materials, drawings, specifications, and other data. I also certify that the information represented gives a true and complete portrayal of the existing, modified existing, or planned new stationary source with respect to air pollution sources and control equipment. I understand that there may be significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations. I also understand that the person who has applied for or has been issued an air quality permit by the Department is an obligatory party to a permit appeal filed pursuant to 20.11.81 NMAC. Further, I certify that I am qualified and authorized to file this application, to certify the truth and accuracy of the information herein, and bind the source. Moreover, I covenant and agree to comply with any requests by the Department for additional information necessary for the Department to evaluate or make a final decision regarding the application.

Signed this 17 day of May, 2023

Ramseyes Maldonado
Print Name

Plant Manager
Print Title

Signature



Role: Owner Operator

Other Authorized Representative



City of Albuquerque Environmental Health Department Air Quality Program



Construction Permit (20.11.41 NMAC) Application Checklist

This checklist must be returned with the application

Any person seeking a new air quality permit, a permit modification, or an emergency permit under 20.11.41 NMAC (Construction Permits) shall do so by filing a written application with the Albuquerque-Bernalillo County Joint Air Quality Program, which administers and enforces local air quality laws for the City of Albuquerque (“City”) and Bernalillo County (“County”), on behalf of the City Environmental Health Department (“Department”).

The Department will rule an application administratively incomplete if it is missing or has incorrect information. The Department may require additional information that is necessary to make a thorough review of an application, including but not limited to technical clarifications, emission calculations, emission factor usage, additional application review fees if any are required by 20.11.2 NMAC, and new or additional air dispersion modeling.

If the Department has ruled an application administratively incomplete three (3) times, the Department will deny the permit application. Any fees submitted for processing an application that has been denied will not be refunded. If the Department denies an application, a person may submit a new application and the fee required for a new application. The applicant has the burden of demonstrating that a permit should be issued.

The following are the minimum elements that shall be included in the permit application before the Department can determine whether an application is administratively complete and ready for technical review. It is not necessary to include an element if the Department has issued a written waiver regarding the element and the waiver accompanies the application. However, the Department shall not waive any federal requirements.

At all times before the Department has made a final decision regarding the application, an applicant has a duty to promptly supplement and correct information the applicant has submitted in an application to the Department. The applicant’s duty to supplement and correct the application includes but is not limited to relevant information acquired after the applicant has submitted the application and additional information the applicant otherwise determines is relevant to the application and the Department’s review and decision. While the Department is processing an application, regardless of whether the Department has determined the application is administratively complete, if the Department determines that additional information is necessary to evaluate or make a final decision regarding the application, the Department may request additional information and the applicant shall provide the requested additional information.

NOTICE REGARDING PERMIT APPEALS: A person who has applied for or has been issued an air quality permit by the Department shall be an obligatory party to a permit appeal filed pursuant to 20.11.81 NMAC.

NOTICE REGARDING SCOPE OF A PERMIT: The Department’s issuance of an air quality permit only authorizes the use of the specified equipment pursuant to the air quality control laws, regulations and conditions. Permits relate to air quality control only and are issued for the sole purpose of regulating the emission of air contaminants from said equipment. Air quality permits are not a general authorization for the location, construction and/or operation of a facility, nor does a permit authorize any particular land use or other form of land entitlement. It is the applicant’s/permittee’s responsibility to obtain all other necessary permits from the appropriate agencies, such as the City Planning Department or County Department of Planning and Development Services, including but not limited to site plan approvals, building permits, fire department approvals and the like, as may be required by law for the location, construction and/or operation of a facility. For more information, please visit the City Planning Department website at <https://www.cabq.gov/planning> and the County Department of Planning and Development Services website at <https://www.bernco.gov/planning>.

The Applicant shall:

20.11.41.13(A) NMAC – Pre-Application Requirements:

Item	Completed	NA ¹	Waived ²
(1) Request a pre-application meeting with the Department using the pre-application meeting request form.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(2) Attend the pre-application meeting. Date of Pre-application meeting: March 8, 2021	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

1. Not Applicable
2. It is not necessary to include an element if the Department has issued a written waiver regarding the element and the waiver accompanies the application. However, the Department shall not waive any federal requirements.

20.11.41.13(B) NMAC – Applicant’s Public Notice Requirements:

Item	Included in Application	NA ¹	Waived ²
(1) Provide public notice in accordance with the regulation, including by certified mail or electronic copy to the designated representative(s) of the recognized neighborhood associations and recognized coalitions that are within one-half mile of the exterior boundaries of the property on which the source is or is proposed to be located.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Contact list of representative(s) of neighborhood associations and recognized coalitions cannot be more than three months old from the application submittal date.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Provide notice using the Notice of Intent to Construct form.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(2) In accordance with the regulation, post and maintain in a visible location a weather proof sign provided by the Department.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

1. Not Applicable; For emergency permits, the public notice requirements in 20.11.41.24 NMAC shall apply instead.
2. It is not necessary to include an element if the Department has issued a written waiver regarding the element and the waiver accompanies the application. However, the Department shall not waive any federal requirements.

The Permit Application shall include:

20.11.41.13(E) NMAC – Application Contents

Item	Included In Application	NA ¹	Waived ²
(1) A complete permit application on the most recent form provided by the Department.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(2) The application form includes:			
a. The owner’s name, street and post office address, and contact information;	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. The facility/ operator’s name, street address and mailing address, if different from the owner;	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. The consultant’s name, and contact information, if applicable;	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. All information requested on the application form is included (i.e., the form is complete).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(3) Date application is submitted.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(4) Sufficient attachments for the following:			
a. Ambient impact analysis using an atmospheric dispersion model approved by the U.S. Environmental Protection Agency, and the Department to demonstrate compliance with the applicable ambient air quality standards. See 20.11.01 NMAC. If you are modifying an existing source, the modeling must include the	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Item	Included In Application	NA ¹	Waived ²
emissions of the entire source to demonstrate the impact the new or modified source(s) will have on existing plant emissions.			
b. The air dispersion model has been executed pursuant to a protocol that was approved in advance by the Department.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Air dispersion modeling approved protocol date:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Basis or source for each emission rate (including manufacturer's specification sheet, AP-42 section sheets, test data, or corresponding supporting documentation for any other source used).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. All calculations used to estimate potential emission rates and controlled/proposed emissions.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Basis for the estimated control efficiencies and sufficient engineering data for verification of the control equipment operation, including if necessary, design, drawing, test report and factors which affect the normal operation.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Fuel data for each existing and/or proposed piece of fuel burning equipment.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Anticipated maximum production capacity of the entire facility and the requested production capacity after construction and/or modification.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. Stack and exhaust gas parameters for all existing and proposed emission stacks.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(5) An operational and maintenance strategy detailing:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a. steps the applicant will take if a malfunction occurs that may cause emission of a regulated air contaminant to exceed a limit that is included in the permit;	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. the nature of emission during routine startup or shutdown of the source and the source's air pollution control equipment; and	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. the steps the application will take to minimize emissions during routine startup or shutdown.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(6) A map, such as a 7.5'-topographic quadrangle map published by the U.S. Geological Survey or a map of equivalent or greater scale, detail, and precision, including a City or County zone atlas map that shows the proposed location of each process equipment unit involved in the proposed construction, modification, or operation of the source, as applicable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(7) An aerial photograph showing the proposed location of each process equipment unit involved in the proposed construction, modification, relocation or technical revision of the source except for federal agencies or departments involved in national defense or national security as confirmed and agreed by the Department in writing.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(8) A complete description of all sources of regulated air contaminants and a process flow diagram depicting the process equipment unit or units at the facility, both existing and proposed, that are proposed to be involved in routine operations and from which regulated air contaminant emissions are expected to be emitted.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(9) A full description of air pollution control equipment, including all calculations and the basis for all control efficiencies presented, manufacturer's specifications sheets, and site layout and assembly drawings; UTM (universal transverse mercator) coordinates shall be used to identify the location of each emission unit.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(10) A description of the equipment or methods proposed by the applicant to be used for emission measurement.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(11) The maximum and normal operating time schedules of the source after completion of construction or modification, as applicable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(12) Any other relevant information as the Department may reasonably require, including without limitation:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a. Applicants shall provide documentary proof that the proposed air quality permitted use of the facility's subject property is allowed by the zoning designation of the City or County zoning laws, as applicable. Sufficient documentation includes: (i) a zoning certification from the City Planning Department or County Department of Planning and Development Services, as applicable, if the property is subject to City or County zoning jurisdiction; or (ii) a zoning verification from both planning	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Item	Included In Application	NA ¹	Waived ²
departments if the property is not subject to City or County zoning jurisdiction. ³ A zone atlas map shall not be sufficient.			
(13) The signature of the applicant, operator, owner or an authorized representative, certifying to the accuracy of all information as represented in the application and attachments, if any.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(14) A check or money order for the appropriate application fee or fees required by 20.11.2 NMAC (Fees).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

1. *Not Applicable – If checked, applicant is required to provide a waiver from the Department for that specific element*
2. *It is not necessary to include an element if the Department has issued a written waiver regarding the element and the waiver accompanies the application. However, the Department shall not waive any federal requirements.*
3. *For emergency permit applications, applicants are not required to submit documentation for the subject property's zoning designation.*



City of Albuquerque

Environmental Health Department

Air Quality Program



Permit Application Review Fee Instructions

All source registration, authority-to-construct, and operating permit applications for stationary or portable sources shall be charged an application review fee according to the fee schedule in 20.11.2 NMAC. These filing fees are required for both new construction, reconstruction, and permit modifications applications. Qualified small businesses as defined in 20.11.2 NMAC may be eligible to pay one-half of the application review fees and 100% of all applicable federal program review fees.

Please fill out the permit application review fee checklist and submit with a check or money order payable to the "City of Albuquerque Fund 242" and either:

1. be delivered in person to the Albuquerque Environmental Health Department, 3rd floor, Suite 3023 or Suite 3027, Albuquerque-Bernalillo County Government Center, south building, One Civic Plaza NW, Albuquerque, NM or,
2. mailed to Attn: Air Quality Program, Albuquerque Environmental Health Department, P.O. Box 1293, Albuquerque, NM 87103.

The department will provide a receipt of payment to the applicant. The person delivering or filing a submittal shall attach a copy of the receipt of payment to the submittal as proof of payment. Application review fees shall not be refunded without the written approval of the manager. If a refund is requested, a reasonable professional service fee to cover the costs of staff time involved in processing such requests shall be assessed. Please refer to 20.11.2 NMAC (effective January 10, 2011) for more detail concerning the "Fees" regulation as this checklist does not relieve the applicant from any applicable requirement of the regulation.



City of Albuquerque

Environmental Health Department Air Quality Program



Permit Application Review Fee Checklist Effective January 1, 2023 – December 31, 2023

Please completely fill out the information in each section. Incompleteness of this checklist may result in the Albuquerque Environmental Health Department not accepting the application review fees. If you should have any questions concerning this checklist, please call 768-1972.

I. COMPANY INFORMATION:

Company Name	GCC Rio Grande, Inc.		
Company Address	P.O. Box 100, Tijeras, NM 87059		
Facility Name	Tijeras Plant		
Facility Address	11783 State Hwy 337, Tijeras, NM 87059		
Contact Person	Samantha Kretz		
Contact Person Phone Number	(505) 286-6081		
Are these application review fees for an existing permitted source located within the City of Albuquerque or Bernalillo County?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
If yes, what is the permit number associated with this modification?	Permit # N/A		
Is this application review fee for a Qualified Small Business as defined in 20.11.2 NMAC? (See Definition of Qualified Small Business on Page 4)	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	

II. STATIONARY SOURCE APPLICATION REVIEW FEES:

If the application is for a new stationary source facility, please check all that apply. If this application is for a modification to an existing permit please see Section III.

Check All That Apply	Stationary Sources	Review Fee	Program Element
Air Quality Notifications			
<input type="checkbox"/>	AQN New Application	\$645.00	2801
<input type="checkbox"/>	AQN Technical Amendment	\$352.00	2802
<input type="checkbox"/>	AQN Transfer of a Prior Authorization	\$352.00	2803
<input checked="" type="checkbox"/>	<i>Not Applicable</i>	<i>See Sections Below</i>	
Stationary Source Review Fees (Not Based on Proposed Allowable Emission Rate)			
<input type="checkbox"/>	Source Registration required by 20.11.40 NMAC	\$ 657.00	2401
<input type="checkbox"/>	A Stationary Source that requires a permit pursuant to 20.11.41 NMAC or other board regulations and are not subject to the below proposed allowable emission rates	\$1,314.00	2301
<input checked="" type="checkbox"/>	<i>Not Applicable</i>	<i>See Sections Below</i>	
Stationary Source Review Fees (Based on the Proposed Allowable Emission Rate for the single highest fee pollutant)			
<input type="checkbox"/>	Proposed Allowable Emission Rate Equal to or greater than 1 tpy and less than 5 tpy	\$986.00	2302
<input type="checkbox"/>	Proposed Allowable Emission Rate Equal to or greater than 5 tpy and less than 25 tpy	\$1,971.00	2303
<input type="checkbox"/>	Proposed Allowable Emission Rate Equal to or greater than 25 tpy and less than 50 tpy	\$3,942.00	2304
<input type="checkbox"/>	Proposed Allowable Emission Rate Equal to or greater than 50 tpy and less than 75 tpy	\$5,913.00	2305
<input type="checkbox"/>	Proposed Allowable Emission Rate Equal to or greater than 75 tpy and less than 100 tpy	\$7,884.00	2306
<input checked="" type="checkbox"/>	Proposed Allowable Emission Rate Equal to or greater than 100 tpy	\$9,855.00	2307
<input type="checkbox"/>	<i>Not Applicable</i>	<i>See Section Above</i>	

Federal Program Review Fees for each subpart (In addition to the Stationary Source Application Review Fees above)			
<input type="checkbox"/>	40 CFR 60 - "New Source Performance Standards" (NSPS)	\$1,314.00	2308
<input type="checkbox"/>	40 CFR 61 - "Emission Standards for Hazardous Air Pollutants (NESHAPs)	\$1,314.00	2309
<input type="checkbox"/>	40 CFR 63 - (NESHAPs) Promulgated Standards	\$1,314.00	2310
<input type="checkbox"/>	40 CFR 63 - (NESHAPs) Case-by-Case MACT Review	\$13,140.00	2311
<input type="checkbox"/>	20.11.61 NMAC, Prevention of Significant Deterioration (PSD) Permit	\$6,570.00	2312
<input type="checkbox"/>	20.11.60 NMAC, Non-Attainment Area Permit	\$6,570.00	2313
<input checked="" type="checkbox"/>	<i>Not Applicable</i>	<i>Not Applicable</i>	

III. MODIFICATION TO EXISTING PERMIT APPLICATION REVIEW FEES:

If the permit application is for a modification to an existing permit, please check all that apply. If this application is for a new stationary source facility, please see Section II.

Check All That Apply	Modifications	Review Fee	Program Element
Modification Application Review Fees (Not Based on Proposed Allowable Emission Rate)			
<input type="checkbox"/>	Proposed modification to an existing stationary source that requires a permit pursuant to 20.11.41 NMAC or other board regulations and are not subject to the below proposed allowable emission rates	\$1,314	2321
<input checked="" type="checkbox"/>	<i>Not Applicable</i>	<i>See Sections Below</i>	
Modification Application Review Fees (Based on the Proposed Allowable Emission Rate for the single highest fee pollutant)			
<input type="checkbox"/>	Proposed Allowable Emission Rate Equal to or greater than 1 tpy and less than 5 tpy	\$986.00	2322
<input type="checkbox"/>	Proposed Allowable Emission Rate Equal to or greater than 5 tpy and less than 25 tpy	\$1,971.00	2323
<input type="checkbox"/>	Proposed Allowable Emission Rate Equal to or greater than 25 tpy and less than 50 tpy	\$3,942.00	2324
<input type="checkbox"/>	Proposed Allowable Emission Rate Equal to or greater than 50 tpy and less than 75 tpy	\$5,913.00	2325
<input type="checkbox"/>	Proposed Allowable Emission Rate Equal to or greater than 75 tpy and less than 100 tpy	\$7,884.00	2326
<input type="checkbox"/>	Proposed Allowable Emission Rate Equal to or greater than 100 tpy	\$9,855.00	2327
<input checked="" type="checkbox"/>	<i>Not Applicable</i>	<i>See Section Above</i>	
Major Modifications Review Fees (In addition to the Modification Application Review Fees above)			
<input type="checkbox"/>	20.11.60 NMAC, Permitting in Non-Attainment Areas	\$6,570	2333
<input type="checkbox"/>	20.11.61 NMAC, Prevention of Significant Deterioration	\$6,570	2334
<input checked="" type="checkbox"/>	<i>Not Applicable</i>	<i>Not Applicable</i>	
Federal Program Review Fees for each subpart (This section applies only if a Federal Program Review is triggered by the proposed modification) (These fees are in addition to the Modification and Major Modification Application Review Fees above)			
<input type="checkbox"/>	40 CFR 60 - "New Source Performance Standards" (NSPS)	\$1,314.00	2328
<input type="checkbox"/>	40 CFR 61 - "Emission Standards for Hazardous Air Pollutants (NESHAPs)	\$1,314.00	2329
<input type="checkbox"/>	40 CFR 63 - (NESHAPs) Promulgated Standards	\$1,314.00	2330
<input type="checkbox"/>	40 CFR 63 - (NESHAPs) Case-by-Case MACT Review	\$13,140.00	2331
<input type="checkbox"/>	20.11.61 NMAC, Prevention of Significant Deterioration (PSD) Permit	\$6,570.00	2332
<input type="checkbox"/>	20.11.60 NMAC, Non-Attainment Area Permit	\$6,570.00	2333
<input checked="" type="checkbox"/>	<i>Not Applicable</i>	<i>Not Applicable</i>	

IV. ADMINISTRATIVE AND TECHNICAL REVISION APPLICATION REVIEW FEES:

If the permit application is for an administrative or technical revision of an existing permit issued pursuant to 20.11.41 NMAC, please check one that applies.

Check One	Revision Type	Review Fee	Program Element
<input type="checkbox"/>	Administrative Revisions	\$ 250.00	2340
<input type="checkbox"/>	Technical Revisions	\$ 500.00	2341
<input checked="" type="checkbox"/>	Not Applicable	See Sections II, III or V	

V. PORTABLE STATIONARY SOURCE RELOCATION FEES:

If the permit application is for a portable stationary source relocation of an existing permit, please check one that applies.

Check One	Portable Stationary Source Relocation Type	Review Fee	Program Element
<input type="checkbox"/>	No New Air Dispersion Modeling Required	\$ 500.00	2501
<input type="checkbox"/>	New Air Dispersion Modeling Required	\$ 750.00	2502
<input checked="" type="checkbox"/>	Not Applicable	See Sections II, III or V	

VI. Please submit a check or money order in the amount shown for the total application review fee.

Section Totals	Review Fee Amount
Section II Total	\$
Section III Total	\$9,855.00
Section IV Total	\$
Section V Total	\$
Total Application Review Fee	\$9,855.00

I, the undersigned, a responsible official of the applicant company, certify that to the best of my knowledge, the information stated on this checklist, give a true and complete representation of the permit application review fees which are being submitted. I also understand that an incorrect submittal of permit application reviews may cause an incompleteness determination of the submitted permit application and that the balance of the appropriate permit application review fees shall be paid in full prior to further processing of the application.

Signed this 17 day of May 2023
Ramsey Maldonado Plant Manager
 Print Name Print Title
[Signature]
 Signature

Definition of Qualified Small Business as defined in 20.11.2 NMAC:

“Qualified small business” means a business that meets all of the following requirements:

- (1) a business that has 100 or fewer employees;
- (2) a small business concern as defined by the federal Small Business Act;
- (3) a source that emits less than 50 tons per year of any individual regulated air pollutant, or less than 75 tons per year of all regulated air pollutants combined; and
- (4) a source that is not a major source or major stationary source.

Note: Beginning January 1, 2011, and every January 1 thereafter, an increase based on the consumer price index shall be added to the application review fees. The application review fees established in Subsection A through D of 20.11.2.18 NMAC shall be adjusted by an amount equal to the increase in the consumer price index for the immediately-preceding year. Application review fee adjustments equal to or greater than fifty cents (\$0.50) shall be rounded up to the next highest whole dollar. Application review fee adjustments totaling less than fifty cents (\$0.50) shall be rounded down to the next lowest whole dollar. The department shall post the application review fees on the city of Albuquerque environmental health department air quality program website.

APPENDIX B. PRE-PERMIT APPLICATION MEETING FORMS

Pre-Permit Application Meeting Request Form

Pre-Permit Application Meeting Request Checklist



Pre-Permit Application Meeting Request Form

Air Quality Program- Environmental Health Department

Please complete appropriate boxes and email to aqd@cabq.gov or mail to:

Environmental Health Department
Air Quality Program
P.O. Box 1293
Room 3047
Albuquerque, NM 87103

Name:	Sarah Vance/Samantha Kretz
Company/Organization:	GCC Rio Grande, Inc.
Point of Contact: (phone number and email): Preferred form of contact (circle one): Phone E-mail	Sarah Vance/Samantha Kretz Phone: 505-238-8272/505-377-5288 Email: svance@gcc.com / skretz@gcc.com
Preferred meeting date/times:	Tue 3/2- 1:00 pm-2:00 pm Wed 3/3- 8:00 am -9:00 am; 11:00 am-2:00 pm Thu 3/4- 11:00 am- 4:00 pm
Description of Project:	Application to revise short term (lb/hr) criteria pollutant (NO _x , SO ₂ and CO) limits based on updated modeling results.

City of Albuquerque- Environmental Health Department
Air Quality Program- Permitting Section
Phone: (505) 768-1972 Email: aqd@cabq.gov



City of Albuquerque

Environmental Health Department

Air Quality Program



Pre-Permit Application Meeting Checklist

Any person seeking a permit under 20.11.41 NMAC, Authority-to-Construct Permits, shall do so by filing a written application with the Department. Prior to submitting an application, the applicant shall contact the department in writing and request a pre-application meeting for information regarding the contents of the application and the application process. This checklist is provided to aid the applicant and **a copy must be submitted with the application.**

Applications that are ruled incomplete because of missing information will delay any determination or the issuance of the permit. The Department reserves the right to request additional relevant information prior to ruling the application complete in accordance with 20.11.41 NMAC.

Name: GCC Tijeras Plant

Contact: Samantha Kretz

Company/Business: GCC Rio Grande, Inc.

- Fill out and submit a Pre-Permit Application Meeting Request form
⇒ Available online at <http://www.cabq.gov/airquality>
- Emission Factors and Control Efficiencies
Notes: AP-42, Manufacturer Guarantee,
Stack Testing
- Air Dispersion modeling guidelines and protocol
Notes: No modeling required.
- Department Policies
Notes: No additional notes.
- Air quality permit fees
Notes: No additional notes.

Ver. 11/13

City of Albuquerque- Environmental Health Department
Air Quality Program- Permitting Section
Phone: (505) 768-1972 Email: aqd@cabq.gov

- Public notice requirements
 - Replacement Part 41 Implementation
 - 20.11.41.13 B. Applicant's public notice requirements
 - Providing public notice to neighborhood association/coalitions
 - Neighborhood association: _____
 - Coalition: _____

Notes: No additional notes.

- Posting and maintaining a weather-proof sign
Notes: No additional notes.

- Regulatory timelines
 - 30 days to rule application complete
 - 90 days to issue completed permit
 - Additional time allotted if there is significant public interest and/or a significant air quality issue
 - Public Information Hearing
 - Complex permitting action
- Notes: No additional notes.

APPENDIX C. NOTICE OF INTENT TO CONSTRUCT AND PUBLIC NOTICE DOCUMENTATION

Notice of Intent to Apply for Air Quality Construction Permit

Notice of Intent Cover Letter

Email Documentation of NOI Sent to Neighborhood Associations and Coalitions

Public Notice Sign Guidelines Checklist

Pictures of Posted Notice

NOTICE FROM THE APPLICANT

Notice of Intent to Apply for Air Quality Construction Permit

You are receiving this notice because the New Mexico Air Quality Control Act (20.11.41.13B NMAC) requires any owner/operator proposing to construct or modify a facility subject to air quality regulations to provide public notice by certified mail or electronic mail to designated representatives of recognized neighborhood associations and coalitions within 0.5-mile of the property on which the source is or is proposed to be located.

This notice indicates that the owner/operator intends to apply for an Air Quality Construction Permit from the Albuquerque – Bernalillo County Joint Air Quality Program. Currently, no application for this proposed project has been submitted to the Air Quality Program. Applicants are required to include a copy of this form and documentation of mailed notices with their Air Quality Construction Permit Application.

Proposed Project Information

**Applicant's name
and address:**

*Nombre y domicilio del
solicitante:* GCC Rio Grande, Inc.- Tijeras Plant
11783 State Hwy 337, Tijeras, NM 87059

**Owner / operator's
name and address:**

*Nombre y domicilio del
propietario u operador:* GCC Rio Grande, Inc.
P.O. Box 100, Tijeras, NM 87059

Contact for comments and inquires:

Datos actuales para comentarios y preguntas:

Name (*Nombre*): Samantha Kretz

Address (*Domicilio*): 11783 State Hwy 337, Tijeras, NM 87059

Phone Number (*Número Telefónico*): (505) 281-3311

E-mail Address (*Correo Electrónico*): skretz@gcc.com

Actual or estimated date the application will be submitted to the department:

Fecha actual o estimada en que se entregará la solicitud al departamento: July 12, 2023

Description of the source:

Descripción de la fuente: Portland Cement Plant

**Exact location of the source
or proposed source:**

*Ubicación exacta de la fuente o
fuente propuesta:* 11783 State Hwy 337, Tijeras, NM 87059

Nature of business:

Tipo de negocio: Cement Manufacturing

**Process or change for which the
permit is requested:**

*Proceso o cambio para el cuál de solicita el
permiso:* Modify kiln lb/hr emission of NO_x, SO₂ and CO.

Maximum operating schedule:

Horario máximo de operaciones: 24 hours per day, 7 days per week, and 52 weeks per year.

Normal operating schedule:

Horario normal de operaciones: 24 hours per day, 7 days per week, and 52 weeks per year.

Preliminary estimate of the maximum quantities of each regulated air contaminant the source will emit:
Estimación preliminar de las cantidades máximas de cada contaminante de aire regulado que la fuente va a emitir:

Air Contaminant <i>Contaminante de aire</i>	Proposed Construction Permit <i>Permiso de Construcción Propuesto</i>		Net Changes (for permit modification or technical revision) <i>Cambio Neto de Emisiones</i> <i>(para modificación de permiso o revisión técnica)</i>	
	pounds per hour <i>libras por hora</i>	tons per year <i>toneladas por año</i>	pounds per hour <i>libras por hora</i>	tons per year <i>toneladas por año</i>
NO_x	975.00	1518.87	621.15	--
CO	1348.00	1446.54	1011.00	--
VOC	15.50	66.54	--	--
SO₂	193.60	848.18	-136.66	--
PM₁₀	33.36	48.58	--	--
PM_{2.5}	17.88	26.03	--	--
HAP	--	--	--	--

NOTE: To add extra rows for H₂S or Pb in Word, click in a box in the last row. Click the plus (+) sign that appears on the right of the row to add a row.

Questions or comments regarding this Notice of Intent should be directed to the Applicant. Contact information is provided with the Proposed Project Information on the first page of this notice. To check the status of an Air Quality Construction Permit application, call 311 and provide the Applicant's information, or visit www.cabq.gov/airquality/air-quality-permits.

The Air Quality Program will issue a Public Notice announcing a 30-day public comment period on the permit application for the proposed project when the application is deemed complete. The Air Quality Program does not process or issue notices on applications that are deemed incomplete. More information about the air quality permitting process is attached to this notice.

Air Quality Construction Permitting Overview

This is the typical process to obtain an Air Quality Construction Permit for Synthetic Minor and Minor sources of air pollution from the Albuquerque – Bernalillo County Joint Air Quality Program.

Step 1: Pre-application Meeting: The Applicant and their consultant must request a meeting with the Air Quality Program to discuss the proposed action. If air dispersion modeling is required, Air Quality Program staff discuss the modeling protocol with the Applicant to ensure that all proposed emissions are considered.

Notice of Intent from the Applicant: Before submitting their application, the Applicant is required to notify all nearby neighborhood associations and interested parties that they intend to apply for an air quality permit or modify an existing permit. The Applicant is also required to post a notice sign at the facility location.

Step 2: Administrative Completeness Review and Preliminary Technical Review: The Air Quality Program has 30 days from the day the permit is received to review the permit application to be sure that it is administratively complete. This means that all application forms must be signed and filled out properly, and that all relevant technical information needed to evaluate any proposed impacts is included. If the application is not complete, the permit reviewer will return the application and request more information from the Applicant. Applicants have three opportunities to submit an administratively complete application with all relevant technical information.

Public Notice from the Department: When the application is deemed complete, the Department will issue a Public Notice announcing a 30-day public comment period on the permit application. This notice is distributed to the same nearby neighborhood associations and interested parties that the Applicant sent notices to, and published on the Air Quality Program's website.

During this 30-day comment period, individuals have the opportunity to submit written comments expressing their concerns or support for the proposed project, and/or to request a Public Information Hearing. If approved by the Environmental Health Department Director, Public Information Hearings are held after the technical analysis is complete and the permit has been drafted.

Step 3: Technical Analysis and Draft Permit: Air Quality Program staff review all elements of the proposed operation related to air quality, and review outputs from advanced air dispersion modeling software that considers existing emission levels in the area surrounding the proposed project, emission levels from the proposed project, and meteorological data. The total calculated level of emissions is compared to state and federal air quality standards and informs the decision on whether to approve or deny the Applicant's permit.

Draft Permit: The permit will establish emission limits, standards, monitoring, recordkeeping, and reporting requirements. The draft permit undergoes an internal peer review process to determine if the emissions were properly evaluated, permit limits are appropriate and enforceable, and the permit is clear, concise, and consistent.

Public Notice from the Department: When the technical analysis is complete and the permit has been drafted, the Department will issue a second Public Notice announcing a 30-day public comment period on the technical analysis and draft permit. This second Public Notice, along with the technical analysis documentation and draft permit, will be published on the Air Quality Program's website, and the public notice for availability of the technical analysis and draft permit will only be directly sent to those who requested further information during the first comment period.

Air Quality Construction Permitting Overview

During this second 30-day comment period, residents have another opportunity to submit written comments expressing their concerns or support for the proposed project, and/or to request a Public Information Hearing.

Possible Public Information Hearing: The Environmental Health Department Director may decide to hold a Public Information Hearing for a permit application if there is significant public interest and a significant air quality issue. If a Public Information Hearing is held, it will occur after the technical analysis is complete and the permit has been drafted.

Step 4: Public Comment Evaluation and Response: The Air Quality Program evaluates all public comments received during the two 30-day public comment periods and Public Information Hearing, if held, and updates the technical analysis and draft permit as appropriate. The Air Quality Program prepares a response document to address the public comments received, and when a final decision is made on the permit application, the comment response document is published on the Air Quality Program's website and distributed to the individuals who participated in the permit process. If no comments are received, a response document is not prepared.

Step 5: Final Decision on the Application: After public comments are addressed and the final technical review is completed, the Environmental Health Department makes a final decision on the application. If the permit application meets all applicable requirements set forth by the New Mexico Air Quality Control Act and the federal Clean Air Act, the permit is approved. If the permit application does not meet all applicable requirements, it is denied.

Notifications of the final decision on the permit application and the availability of the comment response document is published on the Air Quality Program's website and distributed to the individuals who participated in the permit process.

The Department must approve a permit application if the proposed action will meet all applicable requirements and if it demonstrates that it will not result in an exceedance of ambient air quality standards. Permit writers are very careful to ensure that estimated emissions have been appropriately identified or quantified and that the emission data used are acceptable.

The Department must deny a permit application if it is deemed incomplete three times, if the proposed action will not meet applicable requirements, if estimated emissions have not been appropriately identified or quantified, or if the emission data are not acceptable for technical reasons.

For more information about air quality permitting, visit www.cabq.gov/airquality/air-quality-permits

Mike Celente

From: Mike Celente
Sent: Wednesday, July 12, 2023 9:47 AM
To: ceneighborhoodassociation@gmail.com; cammycook@gamil.com; brasher@aps.edu; dreikeja@comcast.net; eastgatewaycoalition@gmail.com; b.lisa.davis@gmail.com; info@eastmountaincoalition.org; admin@eastmountaincoalition.org
Cc: angelalopez@cabq.gov; ktumpene@cabq.gov; CAlbrecht@cabq.gov
Subject: Public Notice of Proposed Air Quality Construction Permit Application - GCC Tijeras
Attachments: GCC_Tijeras_NOI_2023 0712.pdf

Dear Neighborhood Association/Coalition Representative(s),

Why did I receive this public notice?

You are receiving this notice in accordance with New Mexico Administrative Code (NMAC) 20.11.41.13.B(1) which requires any applicant seeking an Air Quality Construction Permit pursuant to 20.11.41 NMAC to provide public notice by certified mail or electronic mail to the designated representative(s) of the recognized neighborhood associations and recognized coalitions that are within one-half mile of the exterior boundaries of the property on which the source is or is proposed to be located.

What is the Air Quality Permit application review process?

The City of Albuquerque, Environmental Health Department, Air Quality Program (Program) is responsible for the review and issuance of Air Quality Permits for any stationary source of air contaminants within Bernalillo County. Once the application is received, the Program reviews each application and rules it either complete or incomplete. Complete applications will then go through a 30-day public comment period. Within 90 days after the Program has ruled the application complete, the Program shall issue the permit, issue the permit subject to conditions, or deny the requested permit or permit modification. The Program shall hold a Public Information Hearing pursuant to 20.11.41.15 NMAC if the Director determines there is significant public interest and a significant air quality issue is involved.

What do I need to know about this proposed application?

Applicant Name	GCC Rio Grande, Inc.
Site or Facility Name	Tijeras Plant
Site or Facility Address	11783 State Hwy 337, Tijeras, NM 87059
New or Existing Source	EXISTING
Anticipated Date of Application Submittal	July 12, 2023
Summary of Proposed Source to Be Permitted	Modify kiln lb/hr emissions of NO _x , SO ₂ , and CO.

What emission limits and operating schedule are being requested?

See attached Notice of Intent to Construct form for this information.

How do I get additional information regarding this proposed application?

For inquiries regarding the proposed source, contact:

- **Samantha Kretz**
- skretz@gcc.com
- **(505) 281-3311**

For inquiries regarding the air quality permitting process, contact:

- City of Albuquerque Environmental Health Department Air Quality Program
- aqd@cabq.gov
- (505) 768-1972

Best,

Mike

Michael Celente, M.S.

Managing Consultant

P 505.266.6611

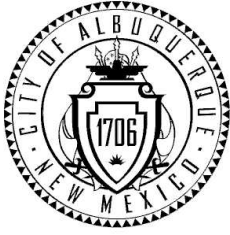
9400 Holly Ave NE, Building 3, Suite B | Albuquerque, NM 87122

Email: mcelente@trinityconsultants.com



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Stay current on environmental issues. [Subscribe](#) today to receive Trinity's free *EHS Quarterly*.



City of Albuquerque

Environmental Health Department

Air Quality Program



Public Notice Sign Guidelines

Any person seeking a permit under 20.11.41 NMAC, Authority-to-Construct Permits, shall do so by filing a written application with the Department. *Prior to submitting an application, the applicant shall post and maintain a weather-proof sign provided by the department. The applicant shall keep the sign posted until the department takes final action on the permit application; if an applicant can establish to the department's satisfaction that the applicant is prohibited by law from posting, at either location required, the department may waive the posting requirement and may impose different notification requirements. A copy of this form must be submitted with your application.*

Applications that are ruled incomplete because of missing information will delay any determination or the issuance of the permit. The Department reserves the right to request additional relevant information prior to ruling the application complete in accordance with 20.11.41 NMAC.

Name: Tijeras Plant

Contact: Samantha Kretz

Company/Business: GCC Rio Grande, Inc.

- The sign must be posted at the more visible of either the proposed or existing facility entrance (or, if approved in advance and in writing by the department, at another location on the property that is accessible to the public)
 - The sign shall be installed and maintained in a condition such that members of the public can easily view, access, and read the sign at all times.
 - The lower edge of the sign board should be mounted a minimum of 2' above the existing ground surface to facilitate ease of viewing
- Attach a picture of the completed, properly posted sign to this document
- Check here if the department has waived the sign posting requirement.**
Alternative public notice details:



Proposed Air Quality Construction Permit
Permiso de Construcción de Calidad del Aire Propuesto



1. Applicant's Name: GCC RIO GRANDE, Inc. - TIJERAS PLANT
 Nombre del solicitante:
 Owner or Operator's Name: GCC RIO GRANDE, Inc.
 Nombre del Propietario u Operador:
2. Actual or Estimated Date the Application will be Submitted to the Department: July 10, 2023
 Fecha Actual o Estimada en que se Entragará la Solicitud al Departamento:
3. Exact Location of the Source or Proposed Source: 11783 STATE HWY 337, TIJERAS, NM 87059
 Ubicación Exacta de la Fuente o Fuente Propuesta:
4. Description of the Source: PORTLAND CEMENT PLANT
 Descripción de la Fuente:
 Nature of Business: CEMENT MANUFACTURING
 Tipo de Negocio:
 Process or change for which a permit is requested: MODIFY KLN LB/HR EMISSIONS OF NO_x, SO₂ and CO.
 Proceso o cambio para el cual se solicita el permiso:

Preliminary estimate of the maximum quantities of each regulated air contaminant the source will emit:
 Estimación preliminar de las cantidades máximas de cada contaminante de aire regulado que la fuente va a emitir:

Air Contaminant Contaminante de Aire	Proposed Construction Permit Permiso de Construcción Propuesto		Net Change Emissions (for permit modification or technical revision) Cambio Neto de Emisiones (para modificación de permiso o revisión técnica)	
	Pounds per hour libras por hora	Tons per year toneladas por año	Pounds per hour libras por hora	Tons per year toneladas por año
	NO _x	975.00	1518.87	621.15
CO	1348.00	1446.54	1011.00	—
VOC	15.50	66.54	-136.66	—
SO ₂	193.60	848.18	—	—
PM ₁₀	33.36	48.58	—	—
PM _{2.5}	17.88	26.03	—	—
HAP	—	—	—	—

5. Maximum Operating Schedule: 24 HOURS/DAY, 7 DAYS/WEEK, 52 WEEKS/YEAR
 Horario Máximo de Operaciones:
 Normal Operation Schedule: 24 HOURS/DAY, 7 DAYS/WEEK, 52 WEEKS/YEAR
 Horario Normal de Operaciones:

6. Current Contact Information for Comments and Inquiries
 Datos actuales para Comentarios y Preguntas

Name (Nombre): SAMANTHA KRETZ
 Address (Domicilio): 11783 STATE HWY 337, TIJERAS, NM 87059
 Phone Number (Número Telefónico): (505) - 281-3311
 Email Address (Correo Electrónico): SKRETZ@GCC.COM

Call 311 for additional information concerning this project, the Air Quality Program, or to file a complaint.
 Llame al 311 para obtener información adicional sobre este proyecto, del Programa de Calidad del Aire, o para presentar una queja.
 Gọi 311 để biết thêm thông tin hoặc để khiếu nại về dự án này, Chương Trình Chất Lượng Không Khí
 City of Albuquerque, Environmental Health Department, Air Quality Program - Stationary Source Permitting
 Ciudad de Albuquerque, Departamento de Salud Ambiental, Programa de Calidad del Aire - Permisos para Fuentes Inmóviles
 (505) 768-1972, aqd@caba.gov

THIS SIGN SHALL REMAIN POSTED UNTIL THE DEPARTMENT TAKES FINAL ACTION ON THE PERMIT APPLICATION
 ESTE AVISO DEBERÁ DE MANTENERSE PUESTO HASTA QUE EL DEPARTAMENTO TOMA UNA DECISIÓN SOBRE LA SOLICITUD DE PERMISO

APPENDIX D. EMISSIONS CALCULATIONS AND SUPPORTING INFORMATION

Emission Calculations for Modified Existing and New Units

Table C-5. Kilns emission summary

Pollutant	Emissions levels for each kiln lb/ton of clinker produced		Total kiln emissions	
	Short-term maximum	Annualized	(lb/hr)	(tpy)
NOx	--	5.25	975.00	1,518.87
SO ₂	--	2.9	193.60	848.18
CO	--	5.0	1,348.00	1,446.54
TSP	1.24	0.20	83.34	57.84
PM ₁₀	0.50	0.17	33.36	48.58
PM _{2.5}	0.27	0.09	17.88	26.03
THC	0.23	0.23	15.5	66.5

1. NOx, SO₂, CO, THC emission limits based on GCC plant-specific data and operations to account for operational variability. Short term emissions based on kiln emission rate variability instead of lb/ton emission rate.
2. Short-term maximum PM₁₀ (filterable) lb/ton emissions calculated compliant with MACT limit (as effective during original Title V permit application in 1998) of 0.3 lb PM₁₀ per ton of kiln feed from each kiln. A kiln feed to clinker ration of 1.65 was used.

TSP to PM₁₀ ratio is based on site-specific kiln stack testing results = 2.50

Annual TSP (PM) lb/ton clinker produced is based off of the PM_{alt} formula given in 40 CFR 63.1343(b)(2)

<i>PM lb/hr</i>	<i>13.21</i>
<i>Exhaust concentration (gr/dscf)</i>	<i>0.006</i>
<i>Historic Maximum Stack Flowrate (dscfm)</i>	<i>256,766</i>
<i>Hour to Minute conversion</i>	<i>60</i>
<i>Conversion from grains to pounds</i>	<i>7000</i>

3. Assumed that PM10/TSP per AP-42 Table 11.6-5 (1995) is: 84%
4. Assumed that PM2.5/TSP per AP-42 Table 11.6-5 (1995) is: 45%
5. Consistent with Authority to Construct Permit No. 2197-M1, exhausts from Clinker Cooler #1 and #2, Kiln #1 and #2 have been combined.
6. Hourly emissions estimated using the lb/ton emission rate and 67.4 tons/hr as combined maximum hourly clinker production from the kilns at the facility.
7. Total annual kiln emissions calculated based on lb/ton emission level and a maximum clinker production of 578,616 tons/yr.

Emission Units Kiln 1 and Kiln2



2 Stage Preheater Tower

Emission Point: 6-1 and 6-2



Dust Collector Compartments in main baghouse



Main Stack: Kilns and Clinker Coolers



Main Stack combined Emission Units
Point

6-1,6-2, 5-3,5-4,5-5,5-6,5-7,5-8,5-9
and 5-10

Kiln 1 and 2 Downcomer

APPENDIX E. FACILITY MAP, AERIAL PHOTOGRAPHS, PROCESS FLOW DIAGRAM AND ZONING CERTIFICATION

Appendix Figure E-1: Facility Location

Appendix Figure E-2: Aerial Photograph of Process Locations


Appendix Figure E-3: Facility Process Flow Diagram

Zoning Certification


GCC Tijeras Plant

Facility Location

Legend

 GCC Rio Grande

Apachitos Canyon

 GCC Rio Grande

Google Earth



1000 ft

GCC Rio Grande

Kiln Project Sources



Main Stack

#2 Kiln
(6-2)

#1 Kiln
(6-1)

GCC Rio Grande

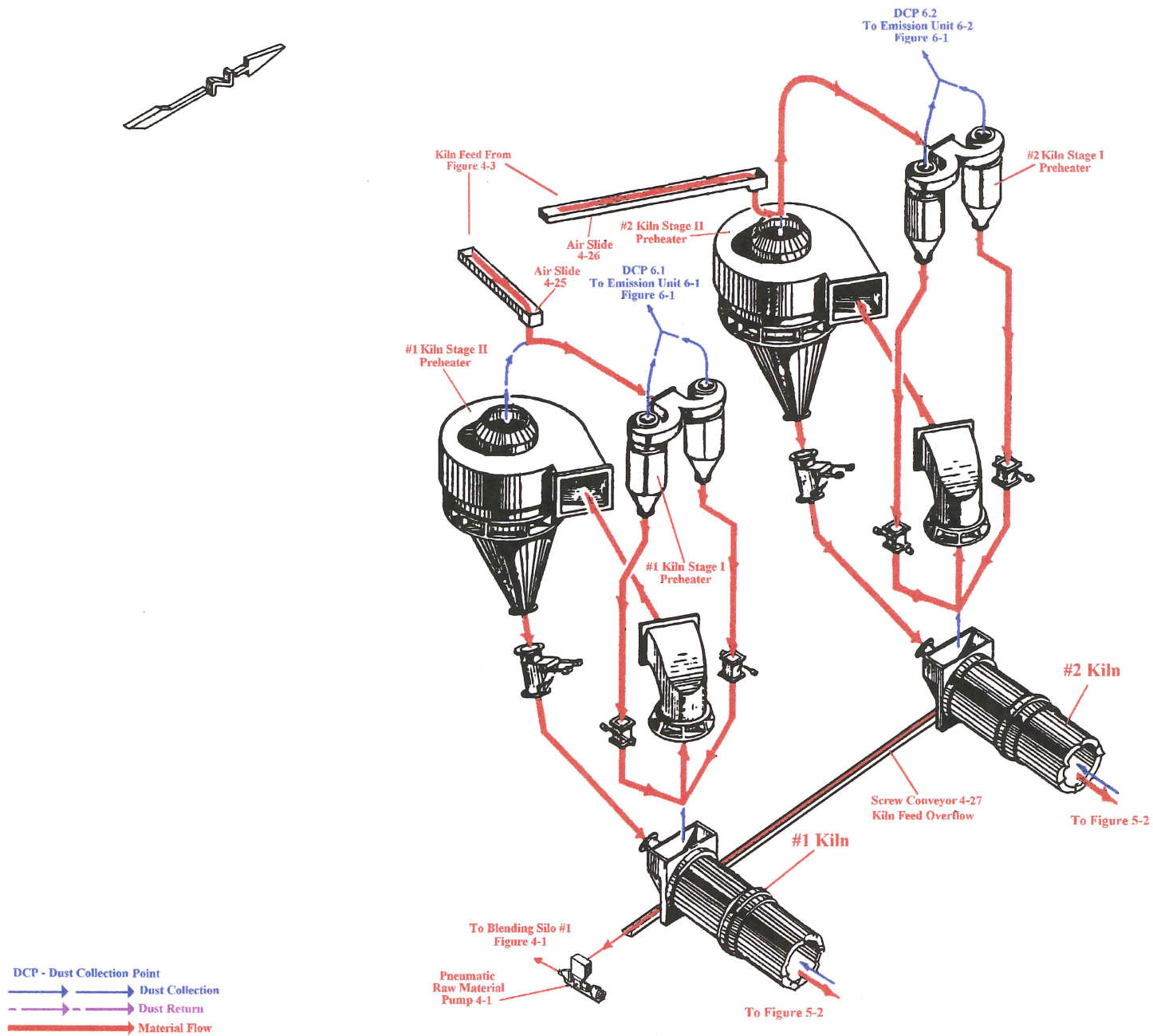


Figure 5-1 Preheater Systems

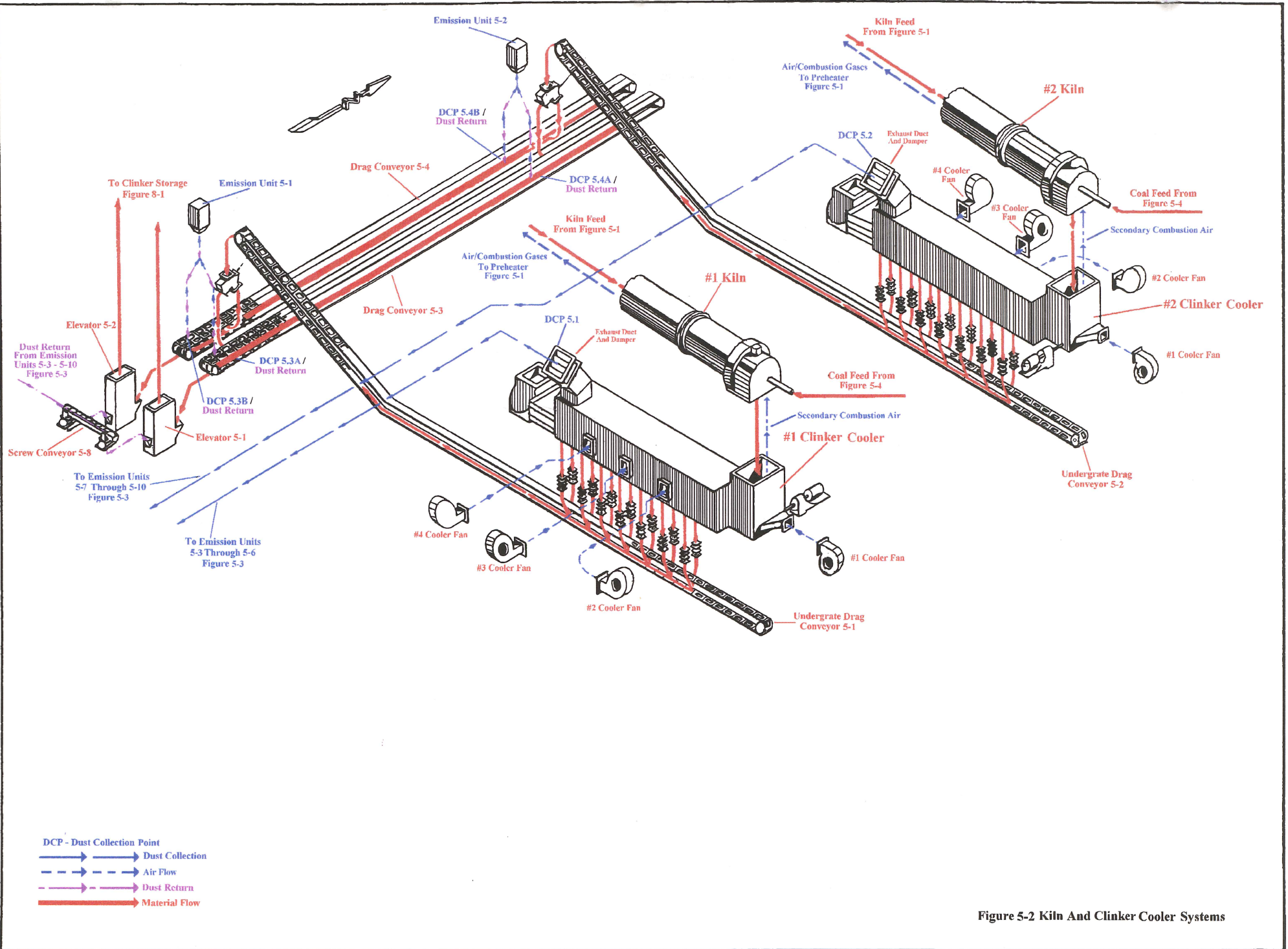


Figure 5-2 Kiln And Clinker Cooler Systems

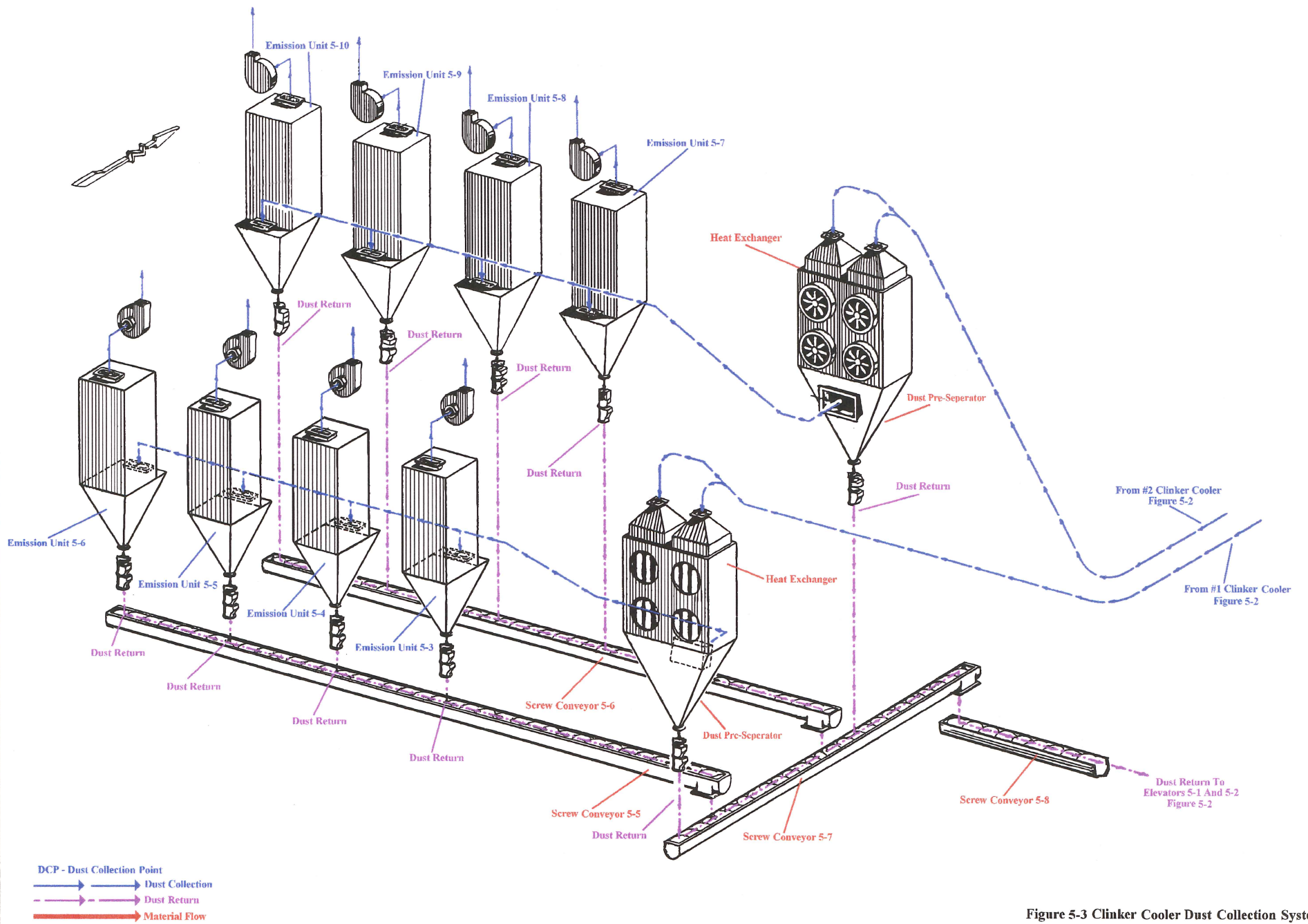


Figure 5-3 Clinker Cooler Dust Collection System



County of Bernalillo
State of New Mexico
Planning & Development Services Department
415 Silver Ave. SW, 2nd Floor
Albuquerque, New Mexico 87102
Office: (505) 314-0350 Fax: (505) 314-0480
www.bernco.gov

April 8, 2022

RIO GRANDE PORTLAND CEMENT CORP C/O MEXCEMENT INC
6400 AIRPORT RD BLDG B SUTTE 1
EL PASO TX 79925-1077

Re: 11783 NM 337 – the “property” – ZNP2022-0036

To Whom It May Concern:

This letter shall certify that according to the official map on file with this office as of this date, the referenced property, legally described as TRACT IN THE SW1/4 OF SEC 22 T10N R5E CONT 112.6900 AC +/-, Tijeras, Bernalillo County, New Mexico, is zoned M-2 Heavy Manufacturing Zone as regulated by the Comprehensive Zoning Ordinance of Bernalillo County. The site is also controlled by a Special Use Permit for Mining, Excavation, and Other Activities Related to Cement Manufacturing. For your convenience, I have included a copy of the corresponding Zone Atlas page showing the referenced property.

The Special Use Permit allows for cement manufacturing and mining as indicated in the request for this certification statement. A check of our records confirms the site does not have any zoning violations at this time.

This certification statement only references the applicability of the Zoning Ordinance as it applies to the aforementioned property in the specified zone. This letter is not a business license and cannot be construed as approval for construction.

Do not hesitate to contact me if you have questions concerning this matter at 314-0388 or at nhamm@bernco.gov.

Sincerely,

Nicholas Hamm
Zoning Administrator

Enclosures: Zone Atlas Page K-28-Z
Cc: Samantha Kretz, skretz@gcc.com

COMMISSIONERS

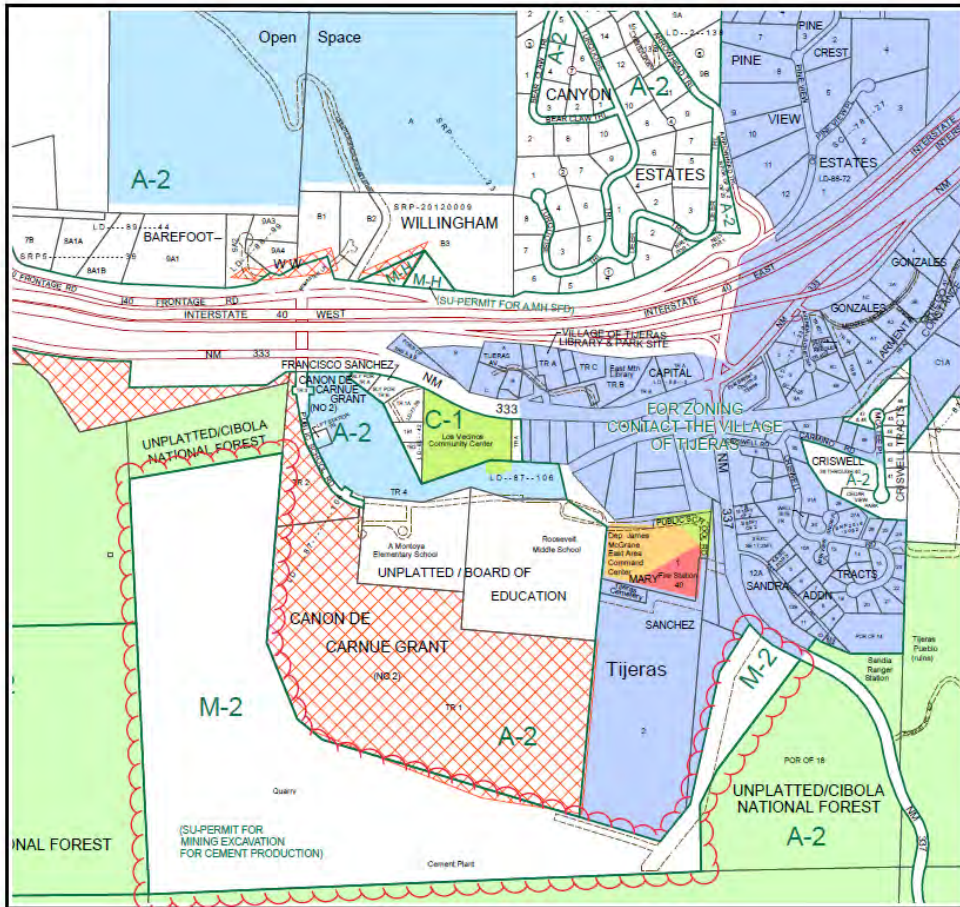
Adriann Barboa, Chair, District 3 *Walt Benson, Vice-Chair, District 4*
Debbie O'Malley, District 1 *Steven Michael (Juezada), District 2* *Charlene E. Pyskotsy, District 5*


ELECTED OFFICIALS

Tanya R. Giddings, Assessor *Linda Stover, Clerk* *Cristy J. Carbon-Gaul, Probate Judge* *Manuel Gonzales III, Sheriff* *Nancy M. Bearce, Treasurer*

COUNTY MANAGER

Julie Morgan Baca






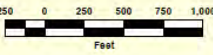
LEGAL DESCRIPTION

T10N
R5E
SEC 22

UNIFORM PROPERTY CODE


1-028-057





250 0 250 500 750 1,000
Feet

Map amended through Fall 2021



PLANNING & DEVELOPMENT SERVICES
GIS TECHNOLOGY SECTION

This information is for reference only. Bernalillo County assumes no liability for errors associated with the use of these data. Users are solely responsible for confirming data accuracy when necessary. Source data from Bernalillo County and the City of Albuquerque.

For current information visit:
<https://www.bermco.gov/planning/download-zone-atlas.aspx>

K-28-Z

**APPENDIX F. CO SHORT-TERM EMISSION RATE SUPPORTING DATA
(ATTACHED ELECTRONICALLY)**
