

Nevada Cement Company

February 13, 2012

Nevada
Environmental Protection

FEB 15 2012

Lawrence Kennedy, P.E.
Bureau Chief
Bureau of Air Pollution Control
Nevada Division of Environmental Protection
901 South Stewart St., Suite 4001
Carson City, NV 89701-5249

BAPC/BAQP

**Re: Application for Minor Revision of a Class I Air Quality Operating Permit
Permit No. AP3241-0387.02 - Nevada Cement Company, Fernley, Nevada**

Dear Mr. Kennedy,

Enclosed please find an application for Minor Revision of a Class I Air Quality Operating Permit. Nevada Cement Company (NCC) is submitting this minor revision application for our Class I Air Quality Operating Permit No. AP3241-0387.02. This minor revision application is being submitted to the Nevada Division of Environmental Protection, Bureau of Air Pollution Control (NDEP-BAPC) for three (3) separate alternative modes of operation, the first involving the #2 Raw Mill (System 12) and the second and third involving the #1 Raw Mill (System 06). Each of these requested alternative modes of operation will not have the ability to operate simultaneously; if one mode is in operation the other alternative modes will not have the ability to operate (only one mode can operate at a time). Following are brief descriptions of the proposed alternative modes of operation. More detail can be found in the attached application with completed NDEP-BAPC application forms and detailed emission calculations. In addition, a check for \$5,000 made payable to the Nevada State Treasurer, Environmental Protection, is also provided with the application.

Alternative Mode of Operation – Option 12A

The first alternative mode of operation (Option 12A) that NCC is requesting is the option we discussed during the meeting with NDEP-BAPC on November 12, 2011. This option involves System 12 having the ability to operate part-time or full time as a finish mill. Under this alternate mode of operation, the feed bins for the #2 Raw Mill which normally store limestone, clay, and iron, will now have the ability to store clinker, gypsum, and pozzolan. When the #2 Raw Mill is used for making cement all three (clinker, gypsum, and pozzolan) would be used, and when the #2 Raw Mill is making Class N Pozzolan, only raw pozzolan would be used. The

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currently permitted allowable emissions from the #2 Raw Mill along with the four other sources affected by this mode of operation will not increase as a result of this proposed minor revision. After the material has been milled to a sufficiently small size, it is discharged out the bottom of the 1910 Mechanical Separator and into the 1917 Airslide. Under the existing mode of operation, this airslide conveys the material to the 213 Transport Pump, which conveys the material pneumatically through a pipe to the blend silos. Under the proposed new mode of operation, this airslide would convey the material to a new 1917-10 Airslide, which would convey to a new 213-10 Transport Pump, and then through a pipe to the cement storage silos. All of this new equipment for material handling and conveying is totally enclosed and does not cause any new emissions inside the Mill Building. As requested by NDEP-BAPC, NCC has included in Appendix 10 of the attached application modified (redline/strikeout) versions of the Specific Operating Conditions for the sources affected by this minor revision.

Alternative Mode of Operation – Option 06A

The second alternative mode of operation (Option 06A) that NCC is requesting is very similar to Option 12A, except that the #1 Raw Mill will be operating as a finish mill. System 06 will have the ability to operate part-time or full time as a finish mill. Under this alternate mode of operation, the feed bins for the #1 Raw Mill which normally store limestone, clay, and iron, will now have the ability to store clinker, gypsum, and pozzolan. When the #1 Raw Mill is used for making cement all three (clinker, gypsum, and pozzolan) would be used, and when the #1 Raw Mill is making Class N Pozzolan, only raw pozzolan would be used. The currently permitted allowable emissions from the #1 Raw Mill along with the three other sources affected by this mode of operation will not increase as a result of this proposed minor revision.

After the material has been milled to a sufficiently small size, it is discharged out the bottom of the 206 Mechanical Separator and into the 207 Airslide. Under the existing mode of operation, this airslide conveys the material to the 213 Transport Pump, which conveys the material pneumatically through a pipe to the blend silos. Under the proposed new mode of operation, this airslide would convey the material to a new 207-10 Airslide, which would convey to a new 213-10 Transport Pump, and then through a pipe to the cement storage silos. All of this new equipment for material handling and conveying is totally enclosed and does not cause any new emissions inside the Mill Building. NCC has included in Appendix 10 of the attached application modified (redline/strikeout) versions of the Specific Operating Conditions for the sources affected by this minor revision.

Alternative Mode of Operation – Option 06B

The third mode of operation (Option 6B) would also use the #1 Raw Mill as a finish mill, but it would function as a pre-grind mill in series with the #1 Finish Mill. A new 2-way diverter valve would be installed under the 206 Mechanical Separator allowing material to be sent either to the existing 207 Airslide, or to a new 207-11 Airslide. This new airslide would convey pre-milled material to the inlet of the #1 Finish Mill for final grinding. The #1 Finish Mill circuit is not modified, except for having the inlet chute adapted to enclose the discharge of the 207-11 Airslide. During this new operating mode, the #1 Finish Mill would be fed by the #1 Raw Mill, instead of from its own feed bins. This mode of operation would allow the unique capabilities of each mill to complement each other because they are operating in series, and is expected to be used for milling difficult materials.

As stated, the #1 Finish Mill won't be modified other than adding the 207-11 airslide to accept pre-milled material from the #1 Raw Mill. After the material is milled in the #1 Finish Mill it is transferred to the cement silos via the existing equipment. The currently permitted allowable emissions from the #1 Raw Mill along with the four other sources affected by this mode of

operation will not increase as a result of this proposed minor revision. NCC has included in Appendix 10 of the attached application modified (redline/strikeout) versions of the Specific Operating Conditions for the sources affected by this minor revision.

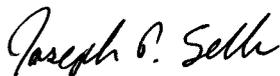
Summary

The purpose of these proposed alternative operating modes is to increase the operating time and economic value of the #1 and #2 Raw Mills by using them part-time as finish mills. Although this idea has rarely been feasible in the past, poor market conditions have resulted in the mills having increased availability to run as finish mills if this mode of operation were approved.

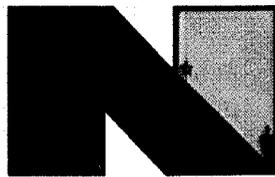
Because these new modes of operation may not always be needed in the future, and because they involve a few new pieces of material handling equipment with different equipment numbers than those in System 06 and System 12, it seemed appropriate to propose the new Systems 06A, 06B, and 12A with the new descriptions and requirements. This is the approach that was agreed upon during the meeting with NDEP on November 4, 2011 when we originally were considering only the proposed System 12A. Since that meeting, NCC realized that we may eventually need the #1 Raw Mill (System 06) to have a finish mill operating mode as well, and reasoned that the NDEP would prefer to have all similar revisions having the same purpose grouped together to maximize the calculated emissions impacts, as opposed to submitting separate revisions in stages.

We would like to thank you and your staff for taking the time to meet with us in November to discuss the proposed minor revision(s) and develop the best approach for presenting these alternative modes of operation. Once you and your staff have had ample time to perform a cursory review of the application, if you feel it would be beneficial, we would be happy to schedule a conference call or face-to-face meeting to discuss the application and proposed project in detail in order to answer any questions and to expedite the review process. In the interim, please do not hesitate to call me at (775) 575 2281 Ext. 259 or Mr. Gavin Patzer at (775) 575-2281 Ext. 204 with any questions and/or if you need additional data to assist in preparation of the air quality operating permit to construct. Thank you in advance for your prompt attention to this most important project.

Sincerely,



Joseph Sells
President
Nevada Cement Company
Enclosures



Nevada Cement Company

Nevada
Environmental Protection

MAR 16 2012

BAPC/BAQP

March 14, 2012

RECEIVED

MAR 16 2012

ENVIRONMENTAL PROTECTION

Mr. Jeffrey Kinder, P.E.
Supervisor, Permitting Branch
Bureau of Air Pollution Control
Nevada Division of Environmental Protection
901 South Stewart Street, Suite 4001
Carson City, Nevada 89701-5249

**Re: Response to Request for Additional Technical Information, Minor Modification
Class I Air Quality Operating Permit AP3241-0387.02, FIN A0030 Dated March 2,
2012
Nevada Cement Company, Fernley, Nevada**

Dear Mr. Kinder,

Nevada Cement Company (NCC) has received and reviewed the letter dated March 2, 2012 from you regarding NCC's Minor Modification Class I Air Quality Operating Permit AP3241-0387.02, FIN A0030. On March 8, we had a phone conversation with Ms. Sarah Smith to discuss exactly what she needed from us to respond to the information request. Based on this conversation, following are NCC's responses to the additional information you have requested in the referenced letter. As requested, the additional information is attached to this letter and referenced accordingly. Please consider this letter and attachments an official response to your request for additional information.

Item #1 – Appendix 1 – Emission Unit Application Forms:

- Section 8 (for each unit) not included. Please address and submit a completed Section 8 for each unit.
- Surface Area Disturbance Form not included. Please address and submit the Surface Area Disturbance form for the facility.

Response to Item #1:

Please see Attachment A for the Section 8 and Surface Area Disturbance Form.

Item #2 – Appendix 3 – Facility Wide Applicable Requirements:

- Facility Wide Applicability Requirements not included. Please address and submit Table 1 for the facility.

Response to Item #2:

Please see Attachment B for the Facility Wide Applicability Requirements.

Item #3 – Appendix 5 – Facility Wide Potential to Emit Tables:

- Facility Wide Potential to Emit Tables not included. Please address and submit Table 1 and Table for the facility.

Response to Item #3:

Please see Attachment C for the Facility Wide Potential to Emit Tables.

Item #4 – Electronic Copy of the application not provided

- Please submit an electronic copy of the application to the NBAPC on a CD or any suitable electronic media

Response to Item #4:

As discussed with Ms. Smith, the application was provided via email to Mr. Lawrence Kennedy as required. However, apparently the electronic version has not been forwarded to Ms. Smith for review. As such, Gavin Patzer forwarded the electronic version of the application to Ms. Smith on March 8, 2012. In addition, the electronic version of the responses to this letter information request will also be provided via email to Ms. Smith and yourself.

Please consider this letter and attachments an official response to your requests for additional information. We sincerely hope the attached responses meet with your expectations, and that we have provided you with the necessary information to continue your review and drafting of the permit. Please do not hesitate to call me or Gavin Patzer at (775) 575 2281 with any additional questions or data needs. Thank you in advance for your prompt attention to this most important project.

Sincerely,



Joseph Sells
President
Nevada Cement Company

Attachments: as stated

cc: Jamie Christopher, AECOM

Sarah Smith - NDEP

Prepared for:
Nevada Cement Company
Fernley, Nevada

Nevada
Environmental Protection

FEB 15 2012

BAPC/BAQP

**Application for Minor Revision of Class I
Air Quality Permit No. AP3241-0387.02
FIN A0030 Nevada Cement Company –
Fernley, Nevada**

Prepared for:
Nevada Cement Company
Fernley, Nevada

Application for Minor Revision of Class I
Air Quality Permit No. AP3241-0387.02
FIN A0030 Nevada Cement Company –
Fernley, Nevada

JAMIE CHRISTOPHER

Prepared By

P. P. Miller II

Reviewed By

AECOM, Inc.
February 2012
Document No.: 60221595

Contents

1.0 Introduction	1-1
1.1 Facility Location	1-2
1.2 Application Content.....	1-2
2.0 Process Description	2-1
2.1 Process Description for the Finish Grind Modes for #1 & #2 Raw Mills	2-1
2.1.1 Finish Grind Mode for the #2 Raw Mill Minor Revision (Option 12A)	2-1
2.1.2 Finish Grind Mode for the #1 Raw Mill Minor Revision (Option 06A)	2-1
2.1.3 Pre-Grind Mode for the #1 Raw Mill & Transfer of Raw Material to #1 Finish Mill Minor Revision (Option 06B)	2-2
2.2 Process Description of Existing Facility	2-3
2.2.1 Limestone Crushing and Screening.....	2-3
2.2.2 Number 1 and 2 Raw Mill Operations.....	2-3
2.2.3 Blend Silos	2-3
2.2.4 Number 1 and 2 Kiln and Kiln Feed Systems.....	2-3
2.2.5 Number 1 and 2 Clinker Coolers.....	2-3
2.2.6 Number 1, 2 and 3 Finish Mills.....	2-4
2.2.7 Cement Storage, Loadout, and Packhouse.....	2-4
2.2.8 Coal/Coke Handling and Storage	2-4
2.2.9 Other Miscellaneous Activities	2-4
2.2.10 Insignificant Activities.....	2-4
3.0 Application for Minor Revision of a Class I Air Quality Operating Permit – Existing Major Source	3-1
3.1 General	3-1
3.2 Detailed Emission Calculations.....	3-2
4.0 Compliance Plan/Certification	4-1
4.1 Compliance Assurance or Enhanced Monitoring Requirements	4-1
4.2 Section 112(r) Accidental Release Prevention.....	4-1
4.3 New Source Performance Standards	4-1
4.4 Maximum Achievable Control Technology (MACT)	4-1
4.5 New Applicable Requirements.....	4-1

List of Appendices

Appendix 1 Emission Unit Application Forms

Appendix 2 Insignificant Activity Information Form

Appendix 3 Facility-Wide Applicable Requirements

Appendix 4 Streamlining and Shield Allowance Form

Appendix 5 Facility-Wide Potential to Emit Tables

Appendix 6 Detailed Emissions Calculations

Appendix 7 Emissions CAP

Appendix 8 Narrative Description, Process Flow Diagram(s), Plot Plan, Map, and Dust Control Plan

Appendix 9 Environmental Evaluation and Dispersion Modeling Files

Appendix 10 Operating Permit Template

Appendix 11 Application Certification

List of Tables

Table 1-1 Nevada Cement Company Site Location.....	1-6
Table 3-1 Option 12A Affected Emission Units	3-1
Table 3-2 Option 06A Affected Emission Units	3-1
Table 3-3 Option 06B Affected Emission Units	3-2

List of Figures

Figure 1-1 Area Map	1-4
Figure 1-2 Local Map	1-5
Systems 6A, 6B, 12 Flow Diagram.....	2-6

1.0 Introduction

Nevada Cement Company (NCC) currently owns and operates a Portland cement manufacturing plant in Fernley, Nevada. NCC is a wholly owned subsidiary of Eagle Materials Inc. (EMI). The NCC Fernley Portland cement plant (Plant), located in western Nevada approximately 1 mile northwest of Fernley, is submitting this Application for Minor Revision of a Class I Air Quality Operating Permit to the Nevada Division of Environmental Protection, Bureau of Air Pollution Control (NDEP-BAPC). The facility is currently operating under Class I Air Quality Operating Permit No. AP3241-0387.02.

This minor revision application is being submitted for three (3) separate alternative modes of operation, the first involving the #2 Raw Mill (System 12) and the second and third involving the #1 Raw Mill (System 06). Each of these requested alternative modes of operation will not have the ability to operate simultaneously, if one mode is in operation the other alternative modes will not have the ability to operate (only one mode can operate at a time).

Alternative Mode of Operation – Option 12A

The first alternative mode of operation (Option 12A) that NCC is requesting is the option we discussed during the meeting with NDEP on November 12, 2011. This option involves System 12 having the ability to operate part-time or full time as a finish mill. Under this alternate mode of operation, the feed bins for the #2 Raw Mill which normally store limestone, clay, and iron, will now have the ability to store clinker, gypsum, and pozzolan. When the #2 Raw Mill is used for making cement all three (clinker, gypsum, and pozzolan) would be used, and when the #2 Raw Mill is making Class N Pozzolan, only raw pozzolan would be used. The currently permitted allowable emissions from the #2 Raw Mill along with the four other sources affected by this mode of operation will not increase as a result of this proposed minor revision.

After the material has been milled to a sufficiently small size, it is discharged out the bottom of the 1910 Mechanical Separator and into the 1917 Airslide. Under the existing mode of operation, this airslide conveys the material to the 213 Transport Pump, which conveys the material pneumatically through a pipe to the blend silos. Under the proposed new mode of operation, this airslide would convey the material to a new 1917-10 Airslide, which would convey to a new 213-10 Transport Pump, and then through a pipe to the cement storage silos. All of this new equipment for material handling and conveying is totally enclosed and does not cause any new emissions inside the Mill Building. As requested by NDEP-BAPC, NCC has included in Appendix 10 modified (redline/strikeout) versions of the Specific Operating Conditions for the sources affected by this minor revision.

Alternative Mode of Operation – Option 06A

The second alternative mode of operation (Option 06A) that NCC is requesting is very similar to Option 12A, except that the #1 Raw Mill will be operating as a finish mill. System 06 will have the ability to operate part-time or full time as a finish mill. Under this alternate mode of operation, the feed bins for the #1 Raw Mill which normally store limestone, clay, and iron, will now have the ability to store clinker, gypsum, and pozzolan. When the #1 Raw Mill is used for making cement all three (clinker, gypsum, and pozzolan) would be used, and when the #1 Raw Mill is making Class N Pozzolan, only raw pozzolan would be used. The currently permitted allowable emissions from the #1 Raw Mill along with the three other sources affected by this mode of operation will not increase as a result of this proposed minor revision.

After the material has been milled to a sufficiently small size, it is discharged out the bottom of the 206 Mechanical Separator and into the 207 Airslide. Under the existing mode of operation, this airslide conveys the material to the 213 Transport Pump, which conveys the material pneumatically through a pipe to the blend silos. Under the proposed new mode of operation, this airslide would convey the material to a new 207-10 Airslide, which would convey to a new 213-10 Transport Pump, and then through a pipe to the cement storage silos. All of this new equipment for material handling and conveying is totally enclosed and does not cause any new emissions inside the Mill Building. NCC has included in Appendix 10 modified (redline/strikeout) versions of the Specific Operating Conditions for the sources affected by this minor revision.

Alternative Mode of Operation – Option 06B

The third mode of operation (Option 6B) would also use the #1 Raw Mill as a finish mill, but it would function as a pre-grind mill in series with the #1 Finish Mill. A new 2-way diverter valve would be installed under the 206 Mechanical Separator allowing material to be sent either to the existing 207 Airslide, or to a new 207-11 Airslide. This new airslide would convey pre-milled material to the inlet of the #1 Finish Mill for final grinding. The #1 Finish Mill circuit is not modified, except for having the inlet chute adapted to enclose the discharge of the 207-11 Airslide. During this new operating mode, the #1 Finish Mill would be fed by the #1 Raw Mill, instead of from its own feed bins. This mode of operation would allow the unique capabilities of each mill to complement each other because they are operating in series, and is expected to be used for milling difficult materials.

As stated, the #1 Finish Mill won't be modified other than adding the 207-11 airslide to accept pre-milled material from the #1 Raw Mill. After the material is milled in the #1 Finish Mill it is transferred to the cement silos via the existing equipment. The currently permitted allowable emissions from the #1 Raw Mill along with the four other sources affected by this mode of operation will not increase as a result of this proposed minor revision. NCC has included in Appendix 10 modified (redline/strikeout) versions of the Specific Operating Conditions for the sources affected by this minor revision.

1.1 Facility Location

The NCC Portland cement plant is located in both Lyon County and Washoe County, Nevada. The county line runs through the north end of the plant property. The actual process equipment is located in Lyon County, Nevada, an area (Hydrographic Area 076) that is designated as attainment or unclassifiable for all National Ambient Air Quality Standards (NAAQS).

NCC's Fernley Portland cement Plant is located in western Nevada approximately 1 mile northwest of Fernley, as shown in **Figure 1-1**. **Figure 1-2** shows the extent of the property line of the NCC facility. **Table 1-1** presents a summary of the location data for the cement plant. The plant is located in the 'Northwest Nevada Intrastate Air Quality Control Region' as described in 40 CFR 81.115. Lyon County is designated as attainment or unclassifiable in 40 CFR 81.329 for all National Ambient Air Quality Standards (NAAQS).

1.2 Application Content

In addition to this introduction and facility location, consistent with the information requirements of Nevada Administrative Code (NAC) 445B.3425 (Minor Revision of Permit), and other applicable NAC, this Application for Minor Revision contains additional sections and appendices following the NDEP-BAPC's "Class I-B Operating Permit Application Packet for Minor Revision of a Class I Operating Permit". The Class I-B Minor Revision Application Cover Page followed by the General Company Information is presented first as required in the guideline packet. Cover pages for Appendices 1 through 11 follow the General Company Information form, however, several of these appendices do not contain any additional information as nothing has changed or is being revised that would require updated information be submitted.

Appendix 1 contains the Emission Unit Application Forms for each of the sources being revised per alternative operating mode. For Option 06A this includes System 06, System 21, System 25(b), and System 26. For Option 06B this includes System 06, System 11, System 21, System 25(b), and System 26, and for Option 12A this includes [System 12, System 13, System 21, System 25(b), and System 26]. Appendix 2 - Insignificant Activity Information Form has not been updated as nothing has changed. Appendices 3 and 4 which cover the Facility-Wide Applicable Requirements and the Streamlining and Shield Allowances have not been updated either as nothing has changed. The Facility-Wide Potential to Emit Tables in Appendix 5 have not been completed as the potential to emit has not changed as a result of the minor revision.

Appendix 6 contains the Detailed Emissions Calculations for each of the sources that will now be handling pozzolan per alternative operating mode along with the calculations demonstrating that a major modification as defined in 40 CFR Part 52.21(b)(2) has not occurred for each alternative mode of operation. Appendix 7 is the Emissions Cap form which has not been updated. Appendix 8 contains a Narrative Description along with a Process Flow Diagram for each of the alternative modes of operation for the minor revision. The Dust Control Plan has not been included as it has not been updated as nothing has changed that would affect it. Appendix 9 is the Environmental Evaluation form which again has not been updated as nothing has changed and the emissions have not increased above the permitted allowable emissions contained in Permit No. AP3241-0387.02 as previously modeled. Appendix 10 contains recommended edits to the permit conditions for each of the sources that are revised as a result of processing pozzolan for each alternative mode of operation. Finally Appendix 11 is the Application Certification.

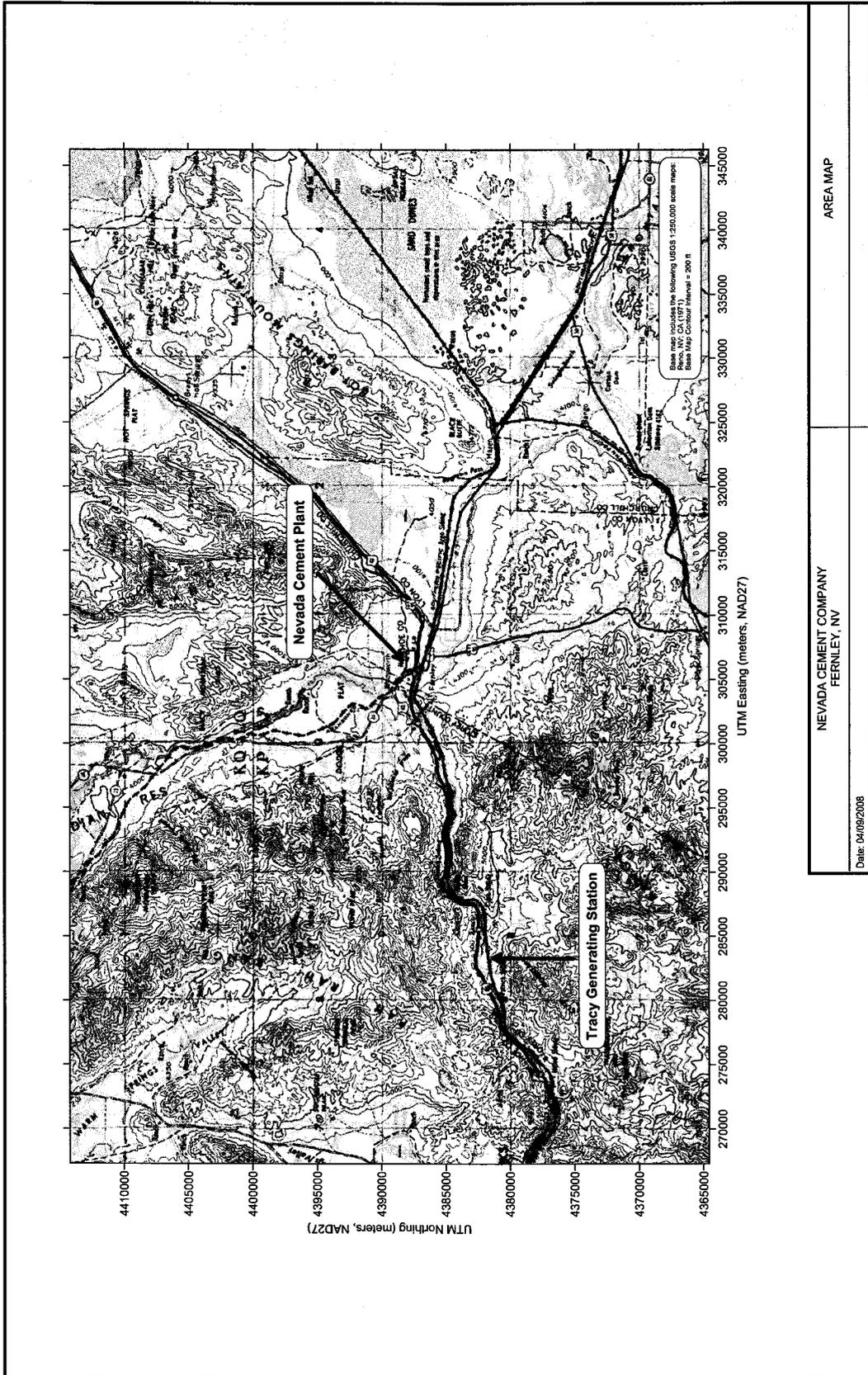


Figure 1-1 Area Map

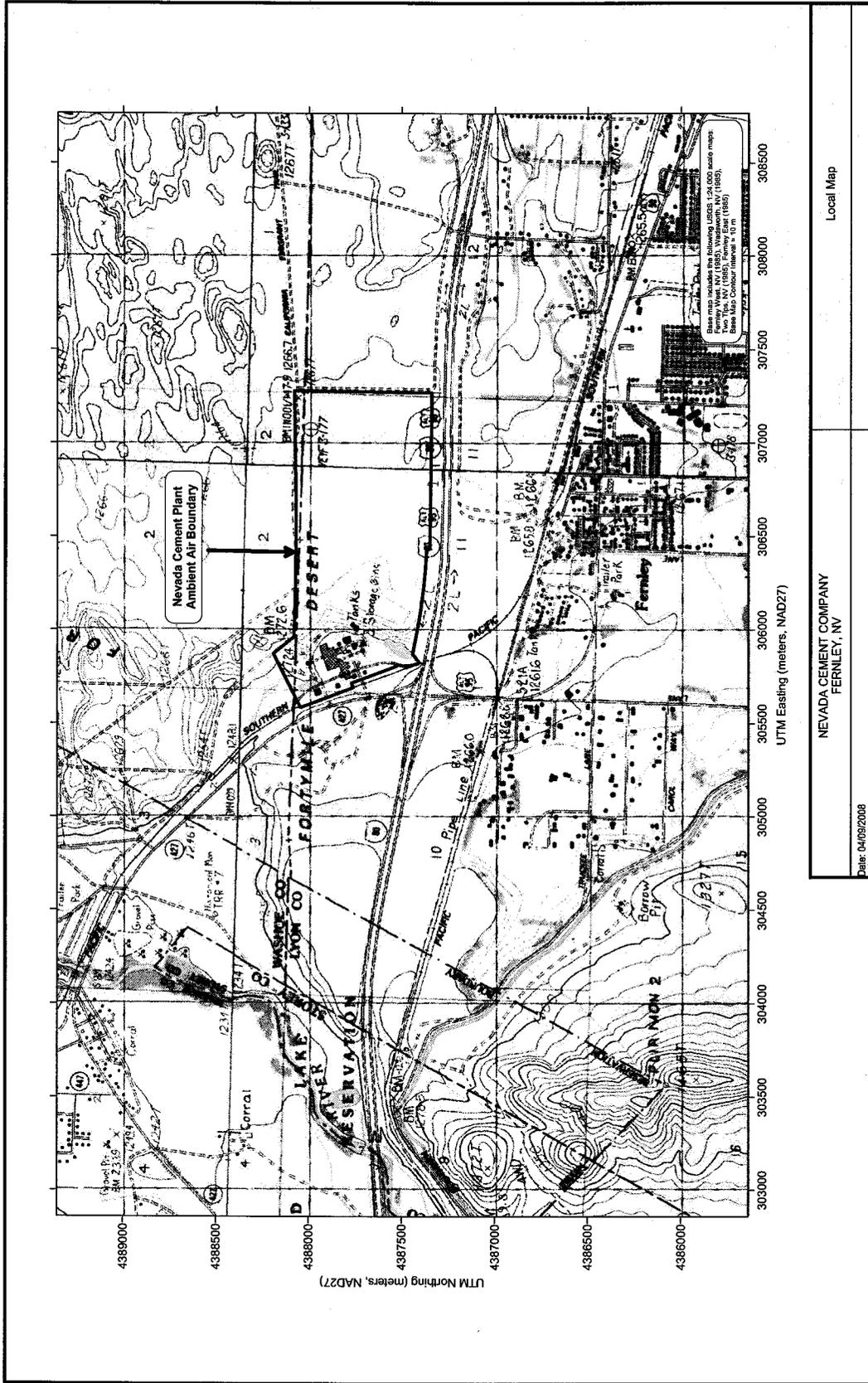


Figure 1-2 Local Map

Table 1-1 Nevada Cement Company Site Location

County	Lyon
Longitude ¹	W 119° 15' 42"
Latitude ¹	N 39° 37' 09"
UTM Easting ¹	305873 Meters
UTM Northing ¹	4387721 Meters
UTM Zone	11
Mean Elevation	4125 Feet

¹ NAD 27 Coordinates

2.0 Process Description

2.1 Process Description for the Finish Grind Modes for #1 & #2 Raw Mills

The purpose of these proposed alternative operating modes is to increase the operating time and economic value of the #1 and #2 Raw Mills by using them part-time as finish mills. Although this idea has rarely been feasible in the past, poor market conditions have resulted in the mills having increased availability to run as finish mills if this mode of operation were approved. Because these new modes of operation may not always be needed in the future, and because they involve a few new pieces of material handling equipment with different equipment numbers than those in System 06 and System 12, it seemed appropriate to propose the new Systems 06A, 06B, and 12A with the new descriptions and requirements. This is the approach that was agreed upon during the meeting with NDEP on November 4, 2011 when we originally were considering only the proposed System 12A. Since that meeting, NCC realized that we may eventually need the #1 Raw Mill (System 06) to have a finish mill operating mode as well, and reasoned that the NDEP would prefer to have all similar revisions having the same purpose grouped together to maximize the calculated emissions impacts, as opposed to submitting separate revisions in stages. Following are brief process descriptions for each alternative mode of operation.

2.1.1 Finish Grind Mode for the #2 Raw Mill Minor Revision (Option 12A)

Under this new mode of operation, the feed bins for the #2 Raw Mill, which normally hold limestone, clay, and iron, would be filled with clinker, gypsum, and pozzolan. When making cement, all three would be used; when making Class N Pozzolan, only the raw pozzolan would be used. The storage building already stores all of the materials needed for raw mills and finish mills, and these would simply be rearranged in different feed bins when the raw mill changes its mode of operation. Therefore, there is no basis for calculating a change in emissions from the storage building.

The raw mill circuit will operate in the same manner under both modes of operation. The existing 1914 (System 12) and DC-1914-2 (System 13) dust collectors and fans will not be modified. The air heater may not be needed for the finish mill mode, but it was assumed to be always on for the purpose of having worst-case emissions calculations.

After the material has been milled to a sufficiently small size, it is discharged out the bottom of the 1910 Mechanical Separator and into the 1917 Airslide. Under the existing mode of operation, this airslide conveys the material to the 213 Transport Pump, which conveys the material pneumatically through a pipe to the blend silos. Under the proposed new mode of operation, this airslide would convey the material to a new 1917-10 Airslide, which would convey to a new 213-10 Transport Pump, and then through a pipe to the cement storage silos. All of this new equipment for material handling and conveying is totally enclosed and does not cause any new emissions inside the Mill Building.

When material is pneumatically conveyed into the storage silos, the conveying air must be removed in order to prevent positive pressure buildup or dust leakage through any silo openings. The purpose of the two existing dust collectors (DC-611 & DC-618) analyzed in the emissions calculations is to remove this conveying air and maintain negative pressure in the silos (System 25b and System 21 respectively). See Systems 6A, 6B, 12A Flow Diagram.

2.1.2 Finish Grind Mode for the #1 Raw Mill Minor Revision (Option 06A)

Under this new mode of operation, the feed bins for the #1 Raw Mill, which normally hold limestone, clay, and iron, would be filled with clinker, gypsum, and pozzolan. When making cement, all three would be used; when making Class N Pozzolan, only the raw pozzolan would be used. The storage building already stores all of the

materials needed for raw mills and finish mills, and these would simply be rearranged in different feed bins when the raw mill changes its mode of operation. Therefore, there is no basis for calculating a change in emissions from the storage building.

The raw mill circuit will operate in the same manner under all modes of operation. The existing DC-210 (System 06) dust collector and fan will not be modified. The air heater may not be needed for the finish mill mode, but it was assumed to be always on for the purpose of having worst-case emissions calculations.

After the material has been milled to a sufficiently small size, it is discharged out the bottom of the 206 Mechanical Separator and into the 207 Airslide. Under the existing mode of operation, this airslide conveys the material to the 213 Transport Pump, which conveys the material pneumatically through a pipe to the blend silos. Under the proposed new mode of operation, this airslide would convey the material to a new 207-10 Airslide, which would convey to the new 213-10 Transport Pump, and then through a pipe to the cement storage silos. All of this new equipment for material handling and conveying is totally enclosed and does not cause any new emissions inside the Mill Building.

When material is pneumatically conveyed into the storage silos, the conveying air must be removed in order to prevent positive pressure buildup or dust leakage through any silo openings. The purpose of the existing dust collectors (DC-611 & DC-618) analyzed in the emissions calculations is to remove this conveying air and maintain negative pressure in the silos (System 25b and System 21 respectively). See Systems 6A, 6B, 12A Flow Diagram.

2.1.3 Pre-Grind Mode for the #1 Raw Mill & Transfer of Raw Material to #1 Finish Mill Minor Revision (Option 06B)

Under this new mode of operation the #1 Raw Mill would also be used as a finish mill, but it would function as a pre-grind mill in series with the #1 Finish Mill. A new 2-way diverter valve would be installed under the 206 Mechanical Separator allowing material to be sent either to the existing 207 Airslide, or to a new 207-11 Airslide. This new airslide would convey pre-milled material to the inlet of the #1 Finish Mill for final grinding. The #1 Finish Mill circuit is not modified, except for having the inlet chute adapted to enclose the discharge of the 207-11 Airslide. During this new operating mode, the #1 Finish Mill would be fed by the #1 Raw Mill, instead of from its own feed bins. This mode of operation would allow the unique capabilities of each mill to complement each other because they are operating in series, and is expected to be used for milling difficult materials.

The raw mill circuit will operate in the same manner under all modes of operation. The existing DC-210 (System 06) dust collector and fan will not be modified. The air heater may not be needed for the finish mill mode, but it was assumed to be always on for the purpose of having worst-case emissions calculations. The #1 Finish Mill will operate in the same manner under all modes of operation and the existing DC-510 (System 11) dust collector and fan will not be modified.

After the material has been milled in the #1 Finish Mill it is transferred to the cement storage silos via existing equipment. The new equipment for material handling and conveying (207-11 Airslide) is totally enclosed and does not cause any new emissions inside the Mill Building.

When material is pneumatically conveyed into the storage silos, the conveying air must be removed in order to prevent positive pressure buildup or dust leakage through any silo openings. The purpose of the existing dust collectors (DC-611 & DC-618) analyzed in the emissions calculations is to remove this conveying air and maintain negative pressure in the silos (System 25b and System 21 respectively). See Systems 6A, 6B, 12A Flow Diagram.

2.2 Process Description of Existing Facility

The Portland cement produced by NCC is a cementitious, crystalline compound composed primarily of calcium, aluminum and iron silicates. Limestone containing calcium carbonate and aluminum, iron, and silicon oxides, clay and sand are combined and fired in rotary kilns where the raw materials are calcinated and sintered through the pyroprocess to create cement clinker. The cement clinker is then refined by grinding and milling and stored for shipping.

2.2.1 Limestone Crushing and Screening

Run-of-mine limestone is quarried and delivered to the NCC facility by truck where it is loaded into the dump hopper. The hopped limestone is then fed through an apron feeder to a primary crusher for initial size reduction, a secondary crusher for further reduction, and a triple deck screen for size separation, all connected by associated conveyors. The crushed limestone is conveyed to an enclosed raw materials storage building where it is stored along with clay and iron ore. The crushing and screening circuits' particulate emissions are controlled by two baghouses, a pneumatic spray dust suppression system, covered conveyors, and the enclosed raw materials storage building. The particulate emissions captured by the baghouses are returned to the covered conveyors that move all of the raw material to the covered storage building or are pneumatically conveyed to a dust tank near the raw mills.

2.2.2 Number 1 and 2 Raw Mill Operations

The raw materials stored in the raw materials building are loaded by an overhead crane into ten bins equipped with weigh feeders for weighing and dispensing of the respective raw materials. The weighed materials are then transferred by conveyor to the raw mills for final milling. The particulate emissions generated from the weigh feeders are controlled by the enclosed building. Particulate emissions from each raw mill and the associated conveyance and elevating systems are controlled by baghouses.

2.2.3 Blend Silos

The milled raw materials are pneumatically transported to blending silos where the raw materials are further blended and discharged to the respective kiln feed bin. The particulate emissions from the blend silos are controlled by one baghouse.

2.2.4 Number 1 and 2 Kiln and Kiln Feed Systems

The blended raw materials discharged from the blending silos are conveyed pneumatically to the kiln feed tanks and rotary feeders. The raw materials are fed via bucket elevators into their respective inclined kiln and fired.

Particulate emissions from the feed systems are controlled by baghouses. Particulate emissions from the kilns themselves are controlled by two large baghouses, one for each kiln. Emissions of SO₂ generated from the combustion of the coal/coke blend used by NCC, are controlled by the rotary kiln process itself. The advantage of using a rotary kiln process is that the SO₂ gases are exposed to the lime and limestone dust in the kiln and baghouse, and are reduced through this natural dry scrubbing process.

2.2.5 Number 1 and 2 Clinker Coolers

The resultant clinker produced by the firing of the raw materials, is discharged from the kiln to the clinker cooler where it is cooled. The cooled clinker is conveyed by bucket elevator to clinker storage tubes which are located in the enclosed clinker storage building. The clinker coolers are each controlled by a separate baghouse.

2.2.6 Number 1, 2 and 3 Finish Mills

The clinker is transferred to a weigh feeder which feeds to the respective finish (ball) mill. The clinker is combined with about 5% gypsum, pulverized, and pneumatically conveyed to the cement storage silos for final bulk storage and shipping. Particulate emissions from the finish mills are controlled by individual baghouses for each mill.

2.2.7 Cement Storage, Loadout, and Packhouse

The cement storage consists of fifteen (15) cement silos which are used for loadout to truck or rail car. Emissions for the storage silos and the loadout processes are controlled by baghouses respectively.

The packhouse consists of packing or bagging of cement into bags for shipping. The packhouse emissions are controlled by a baghouse.

2.2.8 Coal/Coke Handling and Storage

The coal/coke handling and storage systems consist of rail unloading and transport by covered conveyor to storage. The coal and coke is then transported to the coal feed bin and the coke feed bin. The coal or coke is then fed from the bins onto weigh feeders before being conveyed to the grinding mill. The grinding mill is an air swept mill so all ground fuel goes to the system dust collector. The collection system under the dust collector transports the coal or coke to the proper bin for storage as the coal and coke are ground at different times. The ground coal/coke conveying and storage system has several dust collectors to control particulate emissions. In addition, building enclosures, covered conveyor systems and moisture in the coal and coke also control emissions.

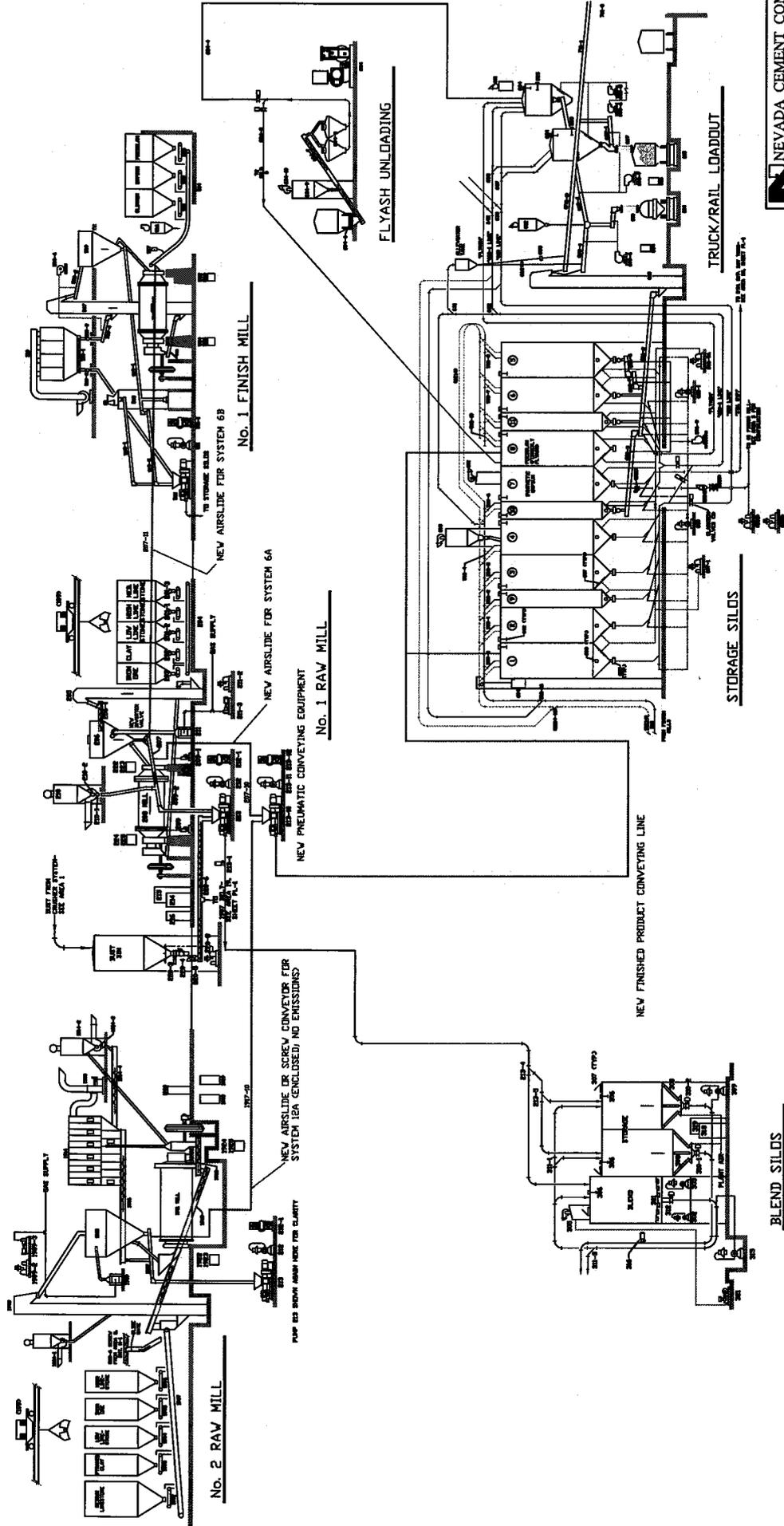
2.2.9 Other Miscellaneous Activities

Fugitive Dust: Material stockpiles (i.e., uncrushed clay, uncrushed limestone and clay, transfer points, etc.) and haul-roads within the facility generate fugitive dust emissions. Primary control measure to mitigate dust at the site is the best practical method (BPMs) which includes use of water trucks to spray water on disturbed areas on a regular basis and other appropriate measures (refer to NCC's Fugitive Dust Control Plan dated August 14, 2003).

2.2.10 Insignificant Activities

- North Tank #1: installation date - 1970; and capacity - 43,758 gallons. Based on capacity, this tank does not qualify as insignificant activities [NAC 445B.288.2.(d)]. Because of tank's extremely low VOC emissions of 0.0015 lb/hr (0.0065 ton/yr), NBAPC has approved this tank as Insignificant activities. This tank is not subject to NSPS requirements.
- South Tank #2: installation date - 1970; and capacity - 43,758 gallons. Based on capacity, this tank does not qualify as insignificant activities [NAC 445B.288.2.(d)]. Because of tank's extremely low VOC emissions of 0.0015 lb/hr (0.0065 ton/yr), NBAPC has approved this tank as Insignificant activities. This tank is not subject to NSPS requirements.
- Raw Mill Tank #3: installation date - 1975; and capacity - 40,303 gallons. Based on capacity, this tank is not subject to NSPS requirements (Subpart K). This tank does not qualify as insignificant activities [NAC 445B.288.2.(d)]. Because of tank's extremely low VOC emissions of 0.0017 lb/hr (0.0076 ton/yr), NBAPC has approved this tank as Insignificant activities.
- Quarry Diesel Tank: installation date - 1964; and capacity - 12,000 gallons. Based on capacity, this tank qualifies as insignificant activities [NAC 445B.288.2.(d)]. This tank is not subject to NSPS requirements.

- Unleaded Fuel Tank: installation date - 1992; and capacity - 3,000 gallons. Based on capacity, this tank is not subject to NSPS requirements (Subpart Kb). This tank qualifies as insignificant activities [NAC 445B.288.2.(d)].
- Motor Oil Storage Tank: installation date - 1979; and capacity - 10,000 gallons. Based on capacity, this tank is not subject to NSPS requirements (Subpart Ka). This tank qualifies as insignificant activities [NAC 445B.288.2.(d)].
- Pony Motor #1: This motor is a stationary internal combustion engine and rated less than 250 hp. This motor qualifies as insignificant activities [NAC 445B.288.2.(g)(1)].
- Pony Motor #2: This motor is a stationary internal combustion engine and rated less than 250 hp. This motor qualifies as insignificant activities [NAC 445B.288.2.(g)(1)].
- Portable Generator: This is an emergency generator and the operating time is based on 500 hours per year. This generator qualifies as insignificant activities [NAC 445B.288.2.(h)]. In addition it is a stationary internal combustion engine and rated less than 250 hp, it also qualifies as insignificant activities per [NAC 445B.288.2.(g)(1)].
- Cooling Tower: NCC's estimated PM-10 emissions are 0.0153 lb/hr and 0.0670 ton/yr. These emissions are less than 1 lb/hr (or 1,000 lbs/yr) and 4,000 lbs/yr respectively. Based on NCC's provided information and request, NDEP's Administrator has approved this Cooling Tower as an insignificant activity on July 28, 2003.



NEVADA CEMENT COMPANY
 A SUBSIDIARY OF

Eagle Materials
 2025 N. ROCKY MOUNTAIN BLVD.
 SUITE 100
 DENVER, CO 80202
SYSTEMS 6A,6B,12A DIAGRAM
 DRAWING NUMBER

NOTE: NEW EQUIPMENT REQ'D FOR SYSTEMS 6A, 6B, 12A SHOWN IN GREEN.

3.0 Application for Minor Revision of a Class I Air Quality Operating Permit – Existing Major Source

3.1 General

The existing NCC facility was constructed in the early 1960's. Current emissions of criteria pollutants exceed the 100 tons per year (tpy) major source threshold for Portland cement plants. Thus, the NCC facility is an existing major stationary source.

As discussed previously, NCC is submitting this minor revision permit application for three alternative operating modes in an effort to increase the operating time and economic value of the #1 and #2 Raw Mills by using them part-time as finish mills. See Section 2.1 for a detailed description of each alternative mode of operation.

Following are three tables listing each of the sources affected as a result of the requested minor revisions for each proposed alternative operating mode.

Table 3-1 Option 12A Affected Emission Units

System	Emission Unit	Source Description
12a	S2.050 - S2.054	#2 Raw Mill Operations – Used as a Finish Mill (baghouse DC 1914)
13	S2.055	#2 Raw Mill (baghouse DC 1914-2)
21	S2.086 - S2.093	Cement Bulk Loading (baghouse DC 618)
25(b)	S2.104 - S2.105	Rail Unloading/Transfer (baghouse DC 611)
26	S2.106	Fly Ash Bulk Loading (baghouse DC 612)

Table 3-2 Option 06A Affected Emission Units

System	Emission Unit	Source Description
06A	S2.017 - S2.022	#1 Raw Mill System – Used as a Finish Mill (baghouse DC 210)
21	S2.086 - S2.093	Cement Bulk Loading (baghouse DC 618)
25(b)	S2.104 - S2.105	Rail Unloading/Transfer (baghouse DC 611)
26	S2.106	Fly Ash Bulk Loading (baghouse DC 612)

Table 3-3 Option 06B Affected Emission Units

System	Emission Unit	Source Description
06B	S2.017 - S2.022	#1 Raw Mill System – Used as a Pre-Grind Mill (baghouse DC 210)
11	S2.043 – S2.049	#1 Finish Mill Operations (baghouse DC 510)
21	S2.086 - S2.093	Cement Bulk Loading (baghouse DC 618)
25(b)	S2.104 - S2.105	Rail Unloading/Transfer (baghouse DC 611)
26	S2.106	Fly Ash Bulk Loading (baghouse DC 612)

The requested revisions for all three alternative modes of operation will not increase the currently permitted allowable [potential to emit (PTE)] emissions, nor will the increase in actual emissions when compared to permitted allowable emissions result in a major modification as defined in 40 CFR Part §52.21(b)(1).

3.2 Detailed Emission Calculations

The NCC facility is classified as an existing major source of air emissions as defined in NAC 445B.0945 [40 CFR §52.21(b)(1)]. The facility-wide potential to emit will remain the same as is currently permitting in Permit No. AP3241-0387.02. Appendix 6 contains the Detailed Emissions Calculations for each of the affected sources listed above for each of the three alternative modes of operation along with the calculations demonstrating that a major modification as defined in 40 CFR Part 52.21(b)(2) has not occurred.

As discussed and reviewed during the November 4, 2011 meeting with NDEP, actual emissions were calculated using the average of 2005 and 2006 and compared against the currently permitted emission limits as contained in Permit No. AP3241-0387.02. The emissions calculations reflect only the affected sources per alternative mode of operation that are affected as a result of this minor revision. Detailed emissions calculations were performed using two different methods.

The first method used was to calculate emissions (both PTE and actual) using emission factors with units of grain per actual cubic foot (gr/acf) and the associated flow (acfm) and hours of operation (hr/yr).

The second method used was to calculate emissions (both PTE and actual) using emission factors with units of lb/ton. These emission factors were derived from the ton per year (tpy) emission rates resulting from the gr/acf emission factor calculations and dividing these by the allowable annual throughput (tpy) and multiplying it by 2,000 lb/ton to come up with the lb/ton emission factor.

The first method of calculation was the method used to set the currently permitted allowable emission rates (PTE) contained in Permit No. AP3241-0387.02. The second method's emission factors were derived in case the question was asked whether annual hours of operation vs annual throughput is the best method of estimating the annual emission rates. Both emission calculations methods were used in order to demonstrate that both methods show that a PSD major modification will not occur.

PSD guidelines suggest that the average emission rate of the most recent and representative two years be used to determine the baseline emission rate. In this case, the average of 2005 and 2006 emissions has been used to establish the baseline.

We have performed PSD applicability emissions calculations for all three proposed alternative modes of operation. The detailed emissions calculations are contained in Appendix 6 and separated per alternative

mode of operation (Option 12A, Option 6A, and Option 6B). The tables in each option are numbered the same and consist of the following:

Tables A and B provide the PSD applicability determination using actual emissions for the years 2005 and 2006 for each of the sources affected by the proposed minor revision per alternative mode of operation. The average of these two years is compared against the current permitted allowable emissions (PTE) using both calculation methods (emission factors of gr/acf & lb/ton). As shown in both Table A and B, the estimated net change in emissions of all criteria pollutants is below applicable PSD significance levels for all three proposed alternative modes of operation.

Tables 1, 1a, 1b and 1c contain the detailed allowable (PTE) emission calculations for PM₁₀ and PM_{2.5} as follows:

- Table 1 - Allowable PM₁₀ emissions as contained in current permit using gr/acf
- Table 1a - Allowable PM₁₀ emissions as contained in current permit using lb/ton
- Table 1b - Allowable PM_{2.5} emissions as contained in current permit using gr/acf
- Table 1c - Allowable PM_{2.5} emissions as contained in current permit using lb/ton

Tables 2, 2a, 3, and 3a contain the detailed actual emission calculations PM₁₀ and PM_{2.5} as follows:

- Table 2 – Actual PM₁₀ emissions for 2005 (calculated with both gr/acf and lb/ton)
- Table 2a – Actual PM_{2.5} emissions for 2005 (calculated with both gr/acf and lb/ton)
- Table 3 – Actual PM₁₀ emissions for 2006 (calculated with both gr/acf and lb/ton)
- Table 3a – Actual PM_{2.5} emissions for 2006 (calculated with both gr/acf and lb/ton)

Tables 4 and 5 contain the detailed actual emissions calculations for the criteria gaseous pollutants (not including GHG emissions) other than PM₁₀ and PM_{2.5} emitted from System 12 and System 06 as follows:

- Table 4 – Actual combustion emissions (gaseous other than GHG and particulate) for 2005
- Table 5 - Actual combustion emissions (gaseous other than GHG and particulate) for 2006

Tables 6, 6a, and 6b contain detailed greenhouse gas (GHG) emissions (CO₂e) from System 12 and System 06 while burning natural gas as follows:

- Table 6 – Allowable GHG (PTE) while burning 100% natural gas
- Table 6a – Actual GHG emissions for 2005 while burning natural gas
- Table 6b – Actual GHG emissions for 2005 while burning natural gas

Tables 7, 7a, and 7b contain detailed greenhouse gas (GHG) emissions (CO₂e) from System 12 and System 06 while burning No. 2 fuel oil:

- Table 7 – Allowable GHG (PTE) while burning 100% No. 2 fuel oil
- Table 7a – Actual GHG emissions for 2006 while burning No. 2 fuel oil
- Table 7b – Actual GHG emissions for 2006 while burning No. 2 fuel oil

Each spreadsheet documents the information used to estimate emissions from each of the sources affected by the minor revision per alternative mode of operation.

4.0 Compliance Plan/Certification

NCC certifies that the Fernley Plant is in compliance with the identified applicable requirements of the Federal and State Clean Air Acts. Furthermore, NCC will continue to comply with all applicable regulatory requirements. Compliance certifications during the permit term will be submitted annually or more frequently if required by the underlying applicable requirement or by the NDEP. NCC will, on a timely basis, meet such requirements that may become effective during the permit term. These may include but are not limited to NSPS and NESHAPs Subparts triggered by the future expansion projects.

4.1 Compliance Assurance or Enhanced Monitoring Requirements

Per 40 CFR Part 64 a compliance assurance monitoring plan (CAM Plan) is required for the two kilns as each of the kilns' potential pre-control device (baghouse) emissions of PM/PM₁₀ equal to or greater than 100 tpy. As such, the CAM Plans for each kiln are found in Appendix 11 at the end of this renewal application.

4.2 Section 112(r) Accidental Release Prevention

NCC does not contain any chemicals regulated by 40 CFR 68 in quantities greater than each chemicals respective threshold quantity. In the future if the facility becomes subject to this rule it will comply with the provisions in a timely manner.

4.3 New Source Performance Standards

Additional New Source Performance Standards (NSPS) could potentially become effective during the five year life of the Title V operating permit. In addition, some subparts may become effective due to future modifications. As these subparts are triggered, NCC plans to comply with each applicable subpart.

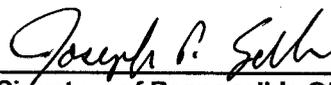
4.4 Maximum Achievable Control Technology (MACT)

Portland cement manufacturing plants are affected by Subpart LLL of 40 CFR 63, Maximum Achievable Control Technology (MACT) standards by the USEPA. NCC is an area source per Subpart LLL and is in full compliance with the MACT standard, and will continue to remain in compliance.

4.5 New Applicable Requirements

NCC is not aware of any new applicable requirements that will become effective during the operating permit term. However, should new requirements become applicable during the term of the permit NCC will comply in a timely manner. NCC will use the appropriate test methods, such as those outlined in the table for Applicable Requirements, Test Methods, and Compliance Status.

I certify this compliance plan and that the stationary source will comply in a timely manner with any new applicable requirements that become effective during the operating permit term.



Signature of Responsible Official

**Application
for
Minor Revision of a
Class I Air Quality
Operating Permit**

GENERAL COMPANY INFORMATION

All applicants shall complete each item or explain in the space provided why no information is needed. Please specify "N/A" (Not Applicable) if necessary. The application will be returned to the applicant if it is deemed incomplete.

1. COMPANY NAME AND ADDRESS THAT ARE TO APPEAR ON THE OPERATING PERMIT [NAC 445B.295.1]:

Nevada Cement Company

(Name)

P.O. Box 840

(Address)

Fernley

(City)

Nevada

(State)

89408-0840

(Zip Code)

2. Owner's Name and Address [NAC 445B.295.1]:

Eagle Materials, Inc.

(Name)

3811 Turtle Creek Blvd. #1100

(Address)

Dallas

(City)

Texas

(State)

75219

(Zip Code)

3. Source Name and Mailing Address, if different from #1 [NAC 445B.295.1]:

Not Applicable

(Name)

(Address)

(City)

(State)

(Zip Code)

4. Name and Address of Owner's Agent [NAC 445B.295.1]

Not Applicable

(Name)

(Address)

(City)

(State)

(Zip Code)

5. Physical Location of Stationary Source [NAC 445B.295.8]: (if no physical address, describe location, e.g., 4 miles south of I-80 at xx Interchange)

Interstate 80, Exit 46, Fernley, Nevada

Township(s) **T20N** Range(s) **R24E** Section(s) **10 & 11**

GENERAL COMPANY INFORMATION (CONTINUED)

6. Plant Manager or Other Appropriate Contact [NAC 445B.295.1]:

Gavin Patzer Plant Engineer/Environment
(Name) (Title)

Nevada Cement Company – P.O. Box 840
(Address)

Fernley Nevada 89408-0840
(City) (State) (Zip Code)

775-575-2281, XT 204 775-575-1326 gpatzer@nevadacement.com
(Telephone #) (FAX #) (E-mail address)

7. Responsible Official Name, Title and Address [NAC 445B.295.1]:

Joseph (Joe) Sells President
(Name) (Title)

Nevada Cement Company – P.O. Box 840
(Address)

Fernley Nevada 89408-0840
(City) (State) (Zip Code)

775-575-2281, XT 259 775-575-4387 jsells@nevadacement.com
(Telephone #) (FAX #) (E-mail address)

8. If records required under the operating permit will be kept at a location other than the source, specify that location [NAC 445B.295.7].

Not Applicable
(Name)

(Address)

(City) (State) (Zip Code)

9. This application is submitted for (please check appropriate boxes below):

- This application is for a source subject to PSD requirements (40 CFR § 52.21).
- This application is for a source subject to the following NSPS requirements (40 CFR § 60):
 - 40 CFR Part 60, Subpart F - Standards of Performance for Portland Cement Plants
 - 40 CFR Part 60 Subpart Y - Standards of Performance for Coal Preparation Plants
- This application is for a source subject to the following NESHAP requirements (40 CFR § 63):
 - 40 CFR 63, Subpart LLL – Portland Cement MACT (PC MACT) Area Source
 - _____
 - _____

10. The application must contain, if applicable:

- a. For a proposed minor revision for which there is an increase of greater than 10 tons per year of a regulated air pollutant, include an environmental evaluation as required by NAC 445B.308 to 445B.313, inclusive [NAC 445B.295.8]. **Not Applicable**
- b. For stationary sources subject to the provisions regarding new source review set forth in 42 USC §§7501 - 7515, inclusive (nonattainment areas), all information required by 42 USC §7503 [NAC 445B.3363.2(b)(3)]. **Not Applicable**

GENERAL COMPANY INFORMATION (CONTINUED)

11. Will the construction occur in more than one phase? Yes No
12. If the construction will occur in more than one phase, please provide the projected date of the commencement for each phase of construction:
- Phase 1: N/A
- Phase 2: N/A
- Phase 3: N/A

13. Compliance Plan/Certification

- a. Attach a compliance plan, signed by the responsible official that contains the following with respect to all applicable requirements:
- (1) A narrative description of the compliance status of the stationary source with respect to all applicable requirements. [NAC 445B.3368.2(h)(1)] **See Section 4 of the narrative, Class I Air Quality Operating Permit Minor Revision Application for Nevada Cement Company Fernley, Nevada.**
 - (2) A compliance certification by a responsible official stating that the stationary source will comply in a timely manner with any new applicable requirements that become effective during the operating permit term. Include a description of the test methods and the requirements for monitoring, enhanced monitoring, recordkeeping and reporting that will be used to comply with the new applicable requirements, fuel use, the rate of production, raw materials, and operating schedules which are used to determine the compliance status of the stationary source. [NAC 445B.3368.2(h)(2)] **See Section 4 of the narrative, Class I Air Quality Operating Permit Minor Revision Application for Nevada Cement Company Fernley, Nevada.**
 - (3) If the stationary source is not in compliance with any applicable requirements at the time the operating permit is issued, include a narrative description and a proposed schedule for achieving compliance which includes remedial measures, an enforceable sequence of actions with milestones, and a schedule to submit certified progress reports every six months. This schedule must be at least as stringent as that contained in any consent decree rendered by a federal court, a court of this state, or an administrative order which applies to the stationary source. [NAC 445B.3368.2(h)(3)III] **NCC is in full compliance.**
- b. A schedule for submission of compliance certifications during the term of the operating permit, to be submitted annually or more frequently to the Bureau of Air Pollution Control. [NAC 445B.3368.2(i)(3)] **Compliance certification is to be submitted in accordance with the terms of the operating permit.**

14. A minor revision may be made to a Class I operating permit if the revision:

- a. Does not violate any applicable requirement;
- b. Does not involve significant changes to the existing requirements for monitoring, reporting or recordkeeping;
- c. Does not require or change:
 - (1) A determination of an emission limitation or other standard on a case-by-case basis;
 - (2) A determination of the ambient impact for any temporary source; or
 - (3) A visibility or increment analysis;
- d. Does not establish or change a condition of the operating permit for which there is no corresponding underlying applicable requirement and which was requested in order to avoid an applicable requirement, including:
 - (1) A federally enforceable emissions cap; or
 - (2) An alternative emission limitation pursuant to 42 U.S.C. §7412(i)(5);
- e. Is not a modification pursuant to any provision of 42 U.S.C. §§7401 to 7515, inclusive; and
- f. Does not result in an increase in allowable emissions that exceeds any of the thresholds specified in NAC 445B.3425.1(f).

GENERAL COMPANY INFORMATION (CONTINUED)

15. **PROCEDURES FOR DEMONSTRATION OF MINOR REVISION AT A MAJOR PSD STATIONARY SOURCE.** Respond to the following criteria [NAC 445B.295.8]:
- a. Is the existing facility categorized as a PSD major stationary source (see 40 CFR Part 52.21(b)(1) for definition)? This determination must be based on the potential to emit as determined by the conditions contained in current permit(s). If the existing facility is not a PSD major stationary source, b and c are not required to be completed. **Yes**
 - b. Describe whether a physical change or change in the method of operation is occurring as a result of the proposed revision(s). If a physical change or change in the method of operation is not occurring, c is not required to be completed. **Yes, See Sections 2 & 3 of the narrative, Class I Air Quality Operating Permit Minor Revision Application for Nevada Cement Company Fernley, Nevada.**
 - c. Describe and provide detailed calculations that demonstrate that a major modification as defined in 40 CFR Part 52.21(b)(2) is not occurring. The demonstration must include, at a minimum:
 - (1) A summary of actual emissions for the entire stationary source;
 - (2) The proposed new potential to emit for the entire stationary source;
 - (3) A summary of any other contemporaneous emission increases and decreases; and
 - (4) The net emission increase or decrease. This must be less than the PSD significant emission rates defined in 40 CFR Part 52.21(b)(23).

See Section 3 of the narrative, Class I Air Quality Operating Permit Minor Revision Application for Nevada Cement Company Fernley, Nevada, and Appendix 6.

16. **Application Submittal:**
Please remove the cover page, Table of Contents and General Information page and all Attachments of the application packet. Submit the remainder of the application packet as your formal application. This should consist of, at a minimum, the Class I-B Minor Revision Application cover page, the general Company Information, and Appendices 1 through 10.

Appendix 1

Emission Unit Application Forms

Appendix 1

EMISSION UNITS APPLICATION FORMS

**(Industrial Process/Combustion Equipment/Storage Silo/
Liquid Storage Tank/ Surface Area Disturbance)**

Instructions

PLEASE RESPOND SEPARATELY TO ITEMS 1 through 8 FOR EACH EMISSION UNIT, as appropriate. Each emission unit at the stationary source must be identified by completion of the appropriate application form contained in this appendix. Forms may be duplicated as needed. Complete all applicable attachments (**Appendix 1**) included in this application package [NAC 445B.295].

- Section 1. Equipment Description: Provide information about the Standard Industrial Classification Code (SIC), describe the processes and products by SIC, including any associated with an alternative operating scenario identified in this application, model number, manufacture date, dimensions and UTM coordinates. [NAC 445B.295.3]
- Section 2. Design Rate/Operating Parameters: Describe all production rates, operating schedules and materials used in the process. [NAC 445B.295.3]
- Section 3. Fuel Usage: Describe all fuels and fuel usage. [NAC 445B.295.3]
- Section 4. Pollution Control Equipment/Exhaust Stack Parameters: Identify and describe all air pollution control equipment. [NAC 445B.295.4]
- Section 5. Compliance Monitoring Devices and Activities: Identify and describe any equipment for the control of air pollution and any devices or activities for monitoring compliance with emission limitations. [NAC 445B.295.4]
- Section 6. Work Practice Standards: provide information on limitations on the operation or any standards for work practices which affect emissions for all regulated air pollutants. [NAC 445B.295.5].
- Section 7. Requested Emission Limits: Provide the requested emission limits for each emission unit. Include emission rates of all regulated air pollutants that are subject to an emissions limitation pursuant to an applicable requirement. The emission rates must be described in pounds per hour and tons per year and in such terms as are necessary to establish compliance using the applicable standard reference test method. [NAC 445B.295.8, NAC 445B.3363(d)]
- Section 8. Applicable Requirements, Test Methods, and Compliance Status: One copy of Section 8 is provided following the Liquid Storage Tank Application. Please complete a copy of Section 8 for each individual application form completed. [NAC 445B.3363.1(g), 445B.3363.1(h)]

Alternative Operating Scenarios: Complete a separate application form for each emission unit having an alternative operating scenario. (*A common example of an alternative operating scenario is a steam boiler that utilizes natural gas as the primary fuel, but may combust diesel fuel as an alternate fuel source*). Please check the box in the upper right hand corner of each application form for emission units requesting an alternative operating scenario. Additionally, for each emission unit application form requesting an alternative operating scenario:

1. Define each alternative operating scenario [NAC 445B.296.1(a)];
2. Demonstrate that each scenario will comply with each applicable requirement or relevant requirement of NAC 445B.001 to 445B.3497, inclusive [NAC 445B.296.1(b)];
3. Detail proposed conditions, including monitoring and recordkeeping for each alternative operating scenario, which will ensure compliance. Contemporaneous log entries must be provided every time the source changes from one scenario to another [NAC 445B.296.1(c)].
4. Provide emission rates and detailed calculations for each alternative operating scenario in Appendix 4 [NAC 445B.296.1(d)].

Surface Area Disturbance

Complete a Surface Area Disturbance application form for any land disturbances that equal or exceed 5 acres. (*Note: The submittal of a dust control plan is required for each surface area disturbance, as specified in Appendix 7. Please provide the dust control plan in Appendix 7.*) **NO CHANGE – NOT APPLICABLE**

LIST OF EMISSION UNIT APPLICATION FORMS

Alternative Operating Mode – Option 12A #2 Raw Mill Used as a Finish Mill

System	Emission Unit	Source Description
12A	S2.050 - S2.054	#2 Raw Mill Operations – Used as a Finish Mill
13	S2.055	#2 Raw Mill
21	S2.086 - S2.093	Cement Bulk Loading
25(b)	S2.104 - S2.105	Rail Unloading/Transfer
26	S2.106	Fly Ash Bulk Loading

**INDUSTRIAL PROCESS
APPLICATION FORM
CLASS I OPERATING PERMIT TO CONSTRUCT**

Check here if this is an
alternative operating scenario

Section 1 - Equipment Description

- a. Type of equipment System 12A- #2 Raw Mill System - Used as a Finish Mill
(S2.050 - Bucket Elevator 1908 transfer to Air separator 1910; S2.051 - Screw Conveyor 1916
transfer to Air Slide 1917-10; S2.052 - Air Separator 1910 transfer to Air Slide 1917-10;
S2.053 - Air Slide 1917-10 transfer to Pump 213-10; S2.054 - 14 MMBtu/hr Natural Gas Fired
Heater 1909)
- b. Standard Industrial Classification (SIC) Code 3241
- c. Manufacturer of equipment Various manufacturers, mostly custom built
- d. Model number N/A Serial number N/A *Equip. number S2.050-S2.054
- e. Date equipment manufactured: 1968
- f. Please check one: Temporary (At the same location for less than 12 months)
 Stationary (At the same location for more than 12 months)
- g. For crushers: size output setting, check one: Primary ($\geq 4"$)
 Secondary ($< 4"$ but $\geq 1"$)
 Tertiary ($< 1"$)
- h. Please check if portable: Portable (transportable or movable within the confines of the stationary
source)
- i. UTM Coordinates 4,387,882.0 m N; 305,880.7 m E; Zone 11
(Please specify NAD 27 or NAD 83)
- j. Basic equipment dimensions (feet): L _____ W _____ H _____

*The equipment number is the facility's own numbering system for this piece of equipment.

Section 2 - Design Rate/Operating Parameters

- a. Maximum design capacity (tons per hour) 40 tph
- b. Requested operating rate (tons per hour)* _____
- c. Requested operating time: (time of day)* 12:00 AM to 12:00 AM
Hours per day 24 Days per year 365
- d. Batch load or charge weight (tons) (if applicable) N/A
- e. Total hours required to process batch or charge (if applicable) N/A
- f. Maximum operating rate (tons per year) 350,400 tpy
- g. Requested operating rate (tons per year)* _____
- f. Type of material processed limestone, clay, pozzolan, clinker, gypsum, iron ore & slag
- g. Minimum moisture content _____

*Note: Please complete if other than the maximum design capacity (tons per hour and tons per year) and/or the maximum hours of operation (24 hours per day, 8760 hours per year) are being requested. The permit will be limited to these values.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 3 - Fuel Usage

(This section only applies to fuel consumed/combusted within the process unit. Fuels consumed/combusted in combustion units are to be listed on the Combustion Equipment Application Form.)

Type of Fuel	Amount Used Per Hour	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)
Oil- Specify Type(s)					
#2 fuel oil	100 gallons	139,000 Btu/gal			
	gallons				
Gasoline	gallons				
Propane	cubic feet				
Natural Gas	14,000 cubic feet	1,040 Btu/ft ³			
*Waste Oil	gallons				
Other					

Type of Fuel	Amount Used Per Hour (tons)	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)	Percent moisture	Percent volatile matter	Percent fixed carbon
Coal - Specify Type(s)								

If more than one type of fuel is combusted, under this operating scenario please specify primary fuel and percentage on a maximum hourly and annual basis (if fuel blending is the primary fuel, identify percentages of each fuel blended). Attach additional information to this form if necessary.

*Firing of waste oil will require multi metals test to insure fuel is non-hazardous.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 4 - Pollution Control Equipment/Exhaust Stack Parameters (this section must be completed)

-Complete for emissions **exhausting through a stack, chimney or vent**: (baghouse, wet scrubber, cyclone, low NO_x burner, no control, etc.)

	Control #1	Control #2
Type of Control (See Note 1)	DC-1914 Baghouse	
Pollutant(s) Controlled	PM/PM₁₀	
Manufacturer	Norblo Model 468-A w/BHA pulse jet conversion	
Manufacturer's Guarantee (see Note 2)	99% efficiency	
Stack height (feet from ground level)	44 ft	
Stack inside diameter (feet)	2.3 ft	
Temperature (°F) at design capacity	180 °F	
Stack exit velocity (feet per second)	145.74 ft/sec	
Gas volume flow rate: Actual cubic feet per minute	36,331 acfm	
Gas volume flow rate: Dry standard cubic feet per minute	10,200 dscfm	
Unusual stack charac- teristics (e.g. raincap, horizontal discharge)	N/A	

-Complete for emissions **not** exhausting through a stack, chimney or vent: (water sprays, fogging water sprays, pneumatic fogging system, high moisture ore, no control, etc.)

	Control #1	Control #2
Type of Control (See Note 1)	N/A	
Pollutant(s) Controlled	N/A	
Manufacturer	N/A	
Manufacturer's Guarantee (see Note 1)	N/A	

Note: Indicate the specific point(s) of emission control application for this emission unit. This must be provided as part of the process flow diagram as required in section 7 of the General Information section of the application form.

Note 1: Specify "uncontrolled" if no pollution control device is installed.

Note 2: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology

- Control Efficiency Ratings provided in Attachment 4.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 5 - Identify and Describe Compliance Monitoring Devices or Activities (attach additional pages if necessary)

1. Monitor and record the throughput rate for the system consisting of S2.050 – S2.053 on a daily basis.
 2. Monitor and record the fuel consumption rate of natural gas for S2.054 on a daily basis.
 3. Monitor and record the hours of operation for the system consisting of S2.050 – S2.054 on a daily basis.
 4. Monitor and record the throughput rate for the system consisting of S2.050 – S2.053 on a cumulative monthly basis, for each 12-month rolling period.
 5. Monitor and record the fuel consumption rate of natural gas for S2.054 on a cumulative monthly basis, for each 12-month rolling period.
 6. Conduct a weekly observation of the Baghouse (DC 1914) and verify that the Baghouse (DC 1914) is operating normally; record the time of observation and indicate the status of the Baghouse (DC 1914). Record and verify that any maintenance work on the Baghouse (DC 1914) is done in accordance with the O&M Plan.
 7. Conduct and record a weekly visible emission inspection of the Baghouse (DC 1914); record the time of the survey and indicate whether any visible emission was observed. If any visible emissions are observed, conduct and record a Method 9 visible emissions test within 24 hours and perform any necessary corrective actions. The Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, Method 9.
6. The required monitoring established above, will be maintained in a contemporaneous log containing at a minimum, the following recordkeeping:
- a. The calendar date of any required monitoring.
 - b. The total daily throughput rate for the system consisting of S2.050 – S2.053 in tons, for the corresponding date.
 - c. The total daily fuel consumption rate for S2.054 in cubic feet, for the corresponding date.
 - d. The total daily hours of operation for the corresponding date.
 - e. The corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate will be determined from the daily throughput rate and the total daily hours of operation recorded in (b) and (c) above.
 - f. The cumulative monthly throughput rate in tons, for each 12-month rolling period.
 - g. The cumulative monthly fuel consumption rate in cubic feet, for each 12-month rolling period.

The results and verification of the opacity observations required in 5 above.

Section 6 - Identify and Describe Work Practice Standards, Etc. (attach additional pages if necessary)

At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 3 - Fuel Usage

(This section only applies to fuel consumed/combusted within the process unit. Fuels consumed/combusted in combustion units are to be listed on the Combustion Equipment Application Form.)

Type of Fuel	Amount Used Per Hour	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)
Oil- Specify Type(s)					
	gallons				
	gallons				
Gasoline	gallons				
Propane	cubic feet				
Natural Gas	cubic feet				
*Waste Oil	gallons				
Other	NO FUEL USED				

Type of Fuel	Amount Used Per Hour (tons)	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)	Percent moisture	Percent volatile matter	Percent fixed carbon
Coal - Specify Type(s)								

If more than one type of fuel is combusted, under this operating scenario please specify primary fuel and percentage on a maximum hourly and annual basis (if fuel blending is the primary fuel, identify percentages of each fuel blended). Attach additional information to this form if necessary.

*Firing of waste oil will require multi metals test to insure fuel is non-hazardous.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 4 - Pollution Control Equipment/Exhaust Stack Parameters (this section must be completed)

-Complete for emissions exhausting through a stack, chimney or vent: (baghouse, wet scrubber, cyclone, low NO_x burner, no control, etc.)

	Control #1	Control #2
Type of Control (See Note 1)	DC-1914-2 Baghouse	
Pollutant(s) Controlled	PM/PM₁₀	
Manufacturer	Industrial Clean Air	
Manufacturer's Guarantee (see Note 2)	99% efficiency	
Stack height (feet from ground level)	29.9 ft	
Stack inside diameter (feet)	2.3 ft	
Temperature (°F) at design capacity	180°F	
Stack exit velocity (feet per second)	68	
Gas volume flow rate: Actual cubic feet per minute	16,956	
Gas volume flow rate: Dry standard cubic feet per minute		
Unusual stack charac- teristics (e.g. raincap, horizontal discharge)	horizontal	

-Complete for emissions not exhausting through a stack, chimney or vent: (water sprays, fogging water sprays, pneumatic fogging system, high moisture ore, no control, etc.)

	Control #1	Control #2
Type of Control (See Note 1)		
Pollutant(s) Controlled		
Manufacturer		
Manufacturer's Guarantee (see Note 1)		
<p>Note: Indicate the specific point(s) of emission control application for this emission unit. This must be provided as part of the process flow diagram as required in section 7 of the General Information section of the application form.</p>		

Note 1: Specify "uncontrolled" if no pollution control device is installed.

Note 2: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology

- Control Efficiency Ratings provided in Attachment 4.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 5 - Identify and Describe Compliance Monitoring Devices or Activities (attach additional pages if necessary)

- 1. Monitor and record the throughput rate for the system consisting of S2.055 on a daily basis.**
- 2. Monitor and record the hours of operation for the system consisting of S2.055 on a daily basis.**
- 3. Monitor and record the throughput rate for the system consisting of S2.055 on a cumulative monthly basis, for each 12-month rolling period.**
- 4. Conduct a weekly observation of the Baghouse (DC 1914-2) and verify that the Baghouse (DC 1914-2) is operating normally; record the time of observation and indicate the status of the Baghouse (DC 1914-2). Record and verify that any maintenance work on the Baghouse (DC 1914-2) is done in accordance with the O&M Plan.**
- 5. Conduct and record a weekly visible emission inspection of the Baghouse (DC 1914-2); record the time of the survey and indicate whether any visible emission was observed. If any visible emissions are observed, conduct and record a Method 9 visible emissions test within 24 hours and perform any necessary corrective actions. The Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, Method 9.**
- 6. The required monitoring established above, will be maintained in a contemporaneous log containing at a minimum, the following recordkeeping:**
 - a. The calendar date of any required monitoring.**
 - b. The total daily throughput rate for the system consisting of Baghouse (DC-1914-2) in tons, for the corresponding date.**
 - c. The total daily hours of operation for the corresponding date.**
 - d. The corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate will be determined from the daily throughput rate and the total daily hours of operation recorded in (b) and (c) above.**
 - e. The cumulative monthly throughput rate in tons, for each 12-month rolling period.**
 - f. The results and verification of the opacity observations required in 5 above.**

Section 6 - Identify and Describe Work Practice Standards, Etc. (attach additional pages if necessary)

At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 7 - Requested Emission Limits

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)	3.0	13.14	See Table 1
Particulates as PM ₁₀	3.0	13.14	See Table 1
Particulates as PM _{2.5}	1.06	4.64	See Table 1b
Sulfur Dioxide			
Carbon Monoxide			
Oxides of Nitrogen			
Volatile Organic Compounds			
Lead			
Hydrogen Sulfide			
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

**STORAGE SILO
APPLICATION FORM
CLASS I OPERATING PERMIT TO CONSTRUCT**

Check here if this is an
alternative operating scenario

Section 1 - Equipment Description

a.	Type of equipment <u>System 21-Cement Bulk Loading</u> <u>(S2.086 - Silo transfers to Air Slides; S2.087 - Air Slides transfer to Bucket Elevator 613;</u> <u>S2.088 - Bucket Elevator 613 to Air Slides 609-4 & 701-1; S2.089 - Air Slides transfer to</u> <u>Loading Spout 627; S2.090 - Silo transfers to North Rail Storage Bin 624; S2.091 - North Rail</u> <u>Bin transfers to Spout 627; S2.092 - #1 Finish Mill Pump 512 transfer into Silos; S2.093 - #2 &</u> <u>3 Finish Mills Pump 2212 and #1 & #2 Raw Mill Pump 213-10 transfer into Silos)</u>
b.	Standard Industrial Classification (SIC) Code <u>3241</u>
c.	Manufacturer of equipment <u>N/A</u>
d.	Model number <u>N/A</u> Serial number <u>N/A</u> *Equip. number <u>S2.086 - S2.093</u>
e.	Date equipment manufactured: <u>1964</u>
f.	Please check one: <input type="checkbox"/> Temporary (At the same location for less than 12 months) <input checked="" type="checkbox"/> Stationary (At the same location for more than 12 months)
g.	Please check if portable: <input type="checkbox"/> Portable (transportable or movable within the confines of the stationary source)
h.	UTM Coordinates <u>4,387,820.0 m N; 305,767.0 m E; Zone 11</u> (Please specify NAD 27 <input checked="" type="checkbox"/> or NAD 83 <input type="checkbox"/>)
i.	Basic equipment dimensions (feet): L _____ W _____ H _____

* The equipment number is the facility's own numbering system for this piece of equipment.

Section 2 - Design Rate/Operating Parameters

a.	Maximum design storage capacity (tons) <u>187.9 tph</u>
b.	Maximum loading rate (tons per hour) <u>187.9 tph</u> Loading time (hours to fill) <u>24</u>
c.	*Requested loading rate (tons per hour): <u>187.9 tph</u> *Hours per day <u>24</u> Days per year <u>365</u> Hours per year <u>8,760</u>
d.	Maximum unloading rate (tons per hour) <u>187.9 tph</u>
e.	Method of unloading (screw auger, etc.) _____
f.	Continuous or batch discharge _____
g.	Requested unloading rate (tons per hour) <u>187.9 tph</u> Requested unloading rate (tons per year) <u>1,646,004 tpy</u>
h.	Requested unloading time: Hours per day <u>24</u> Time of day <u>12:00 AM</u> to <u>12:00 AM</u> Hours per day <u>24</u> Days per year <u>365</u> Hours per year <u>8,760</u>
i.	Material type processed (lime, cement, flyash, etc.) <u>Portland cement, pozzolan</u>

*Note: Please complete if other than the maximum loading rate (tons per hour), and/or the maximum hours of operation (24 hours per day, 8760 hours per year), are being requested. The permit will be limited to these values.

Section 3 -Reserved

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 4 - Pollution Control Equipment (this section *must* be completed)

-Complete for emissions exhausting through a silo stack, chimney or vent during silo loading process:
(baghouse, wet scrubber, cyclone, no control, etc.)

	Control #1	Control #2
Type of Control: (See Note 1)	DC-618 Baghouse	
Pollutant(s) Controlled	PM/PM₁₀	
Manufacturer	Staclean Model #216-8*-AS; Serial # J-005	
Manufacturer's Guarantee (see Note 2)	99% efficiency	
Stack height (feet from ground level)	111.9 ft	
Stack inside diameter (feet)	1.78 ft equivalent diameter (19" x 19" square)	
Temperature (°F) at design capacity	125°F	
Stack exit velocity (feet per second)	82.78 ft/sec	
Gas volume flow rate: actual cubic feet per minute	12,360 acfm	
Gas volume flow rate: dry standard cubic feet per minute	10,236 dscfm	
Unusual stack charac- teristics (e.g., raincap, horizontal discharge)	horizontal	

-Complete for emissions exhausting through a silo stack, chimney or vent during silo unloading process:
(baghouse, wet scrubber, cyclone, no control, etc.)

	Control #1	Control #2
Type of Control: (See Note 1)	DC-618 Baghouse	
Pollutant(s) Controlled	PM/PM₁₀	
Manufacturer	Staclean Model #216-8*-AS; Serial # J-005	
Manufacturer's Guarantee (see Note 2)	99% efficiency	
Stack height (feet from ground level)	111.9 ft	
Stack inside diameter (feet)	1.78 ft equivalent diameter (19" x 19" square)	
Temperature (°F) at design capacity	125°F	
Stack exit velocity (feet per second)	82.78 ft/sec	
Gas volume flow rate: actual cubic feet per minute	12,360 acfm	
Gas volume flow rate: dry standard cubic feet per minute	10,236 dscfm	
Unusual stack charac- teristics (e.g., raincap, horizontal discharge)		

Note 1: Specify "uncontrolled" if no pollution control device is installed.

Note 2: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 4 - Pollution Control Equipment (continued)

-Complete for emissions not exhausting through a stack during silo unloading process: (water sprays, fogging water sprays, pneumatic fogging system, high moisture ore, no control, etc.)

	Control #1	Control #2
Type of Control: (Specify "uncontrolled" if no pollution control device is installed)	N/A	
Pollutant(s) Controlled	N/A	
Manufacturer	N/A	
Manufacturer's Guarantee (see Note 1)	N/A	

Note 1: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 5 - Identify and Describe Compliance Monitoring Devices or Activities (attach additional pages if necessary)

- 1. Monitor and record the throughput rate for the system consisting of S2.086 – S2.093 on a daily basis.**
- 2. Monitor and record the hours of operation for the system consisting of S2.086 – S2.093 on a daily basis.**
- 3. Monitor and record the throughput rate for the system consisting of S2.086 – S2.093 on a cumulative monthly basis, for each 12-month rolling period.**
- 4. Conduct a weekly observation of the Baghouse (DC 618) and verify that the Baghouse (DC 618) is operating normally; record the time of observation and indicate the status of the Baghouse (DC 618). Record and verify that any maintenance work on the Baghouse (DC 618) is done in accordance with the O&M Plan.**
- 5. Conduct and record a weekly visible emission inspection of the Baghouse (DC 618); record the time of the survey and indicate whether any visible emission was observed. If any visible emissions are observed, conduct and record a Method 9 visible emissions test within 24 hours and perform any necessary corrective actions. The Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, Method 9.**
- 6. The required monitoring established above, will be maintained in a contemporaneous log containing at a minimum, the following recordkeeping:**
 - a. The calendar date of any required monitoring.**
 - b. The total daily throughput rate for the system consisting of Baghouse (DC-618) in tons, for the corresponding date.**
 - c. The total daily hours of operation for the corresponding date.**
 - d. The corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate will be determined from the daily throughput rate and the total daily hours of operation recorded in (b) and (c) above.**
 - e. The cumulative monthly throughput rate in tons, for each 12-month rolling period.**
 - f. The results and verification of the opacity observations required in 5 above.**

Section 6 - Identify and Describe Work Practice Standards, Etc. (attach additional pages if necessary)

At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 7 - Requested Emission Limits - Silo Loading

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)	2.12	9.28	See Table 1
Particulates as PM ₁₀	2.12	9.28	See Table 1
Particulates as PM _{2.5}	0.75	3.28	See Table 1b
Sulfur Dioxide			
Carbon Monoxide			
Oxides of Nitrogen			
Volatile Organic Compounds			
Lead			
Hydrogen Sulfide			
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 7 (continued) - Requested Emission Limits - Silo Unloading

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)			
Particulates as PM ₁₀	N/A	N/A	See Section 7 above (Silo Loading)
Sulfur Dioxide			
Carbon Monoxide			
Oxides of Nitrogen			
Volatile Organic Compounds			
Lead			
Hydrogen Sulfide			
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 3 - Fuel Usage

(This section only applies to fuel consumed/combusted within the process unit. Fuels consumed/combusted in combustion units are to be listed on the Combustion Equipment Application Form.)

Type of Fuel	Amount Used Per Hour	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)
Oil- Specify Type(s)					
	gallons				
	gallons				
Gasoline	gallons				
Propane	cubic feet				
Natural Gas	cubic feet				
*Waste Oil	gallons				
Other	NO FUEL USED				

Type of Fuel	Amount Used Per Hour (tons)	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)	Percent moisture	Percent volatile matter	Percent fixed carbon
Coal - Specify Type(s)								

If more than one type of fuel is combusted, under this operating scenario please specify primary fuel and percentage on a maximum hourly and annual basis (if fuel blending is the primary fuel, identify percentages of each fuel blended). Attach additional information to this form if necessary.

*Firing of waste oil will require multi metals test to insure fuel is non-hazardous.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 4 - Pollution Control Equipment/Exhaust Stack Parameters (this section must be completed)

-Complete for emissions exhausting through a stack, chimney or vent: (baghouse, wet scrubber, cyclone, low NO_x burner, no control, etc.)

	Control #1	Control #2
Type of Control (See Note 1)	DC-611 Baghouse	
Pollutant(s) Controlled	PM/PM₁₀	
Manufacturer	Mikropul (1995)	
Manufacturer's Guarantee (see Note 2)	99% efficiency	
Stack height (feet from ground level)	60.0 ft	
Stack inside diameter (feet)	0.94 ft	
Temperature (°F) at design capacity	Ambient	
Stack exit velocity (feet per second)	48.03	
Gas volume flow rate: Actual cubic feet per minute	2,000	
Gas volume flow rate: Dry standard cubic feet per minute	1,764	
Unusual stack characteristics (e.g. raincap, horizontal discharge)		

-Complete for emissions not exhausting through a stack, chimney or vent: (water sprays, fogging water sprays, pneumatic fogging system, high moisture ore, no control, etc.)

	Control #1	Control #2
Type of Control (See Note 1)		
Pollutant(s) Controlled		
Manufacturer		
Manufacturer's Guarantee (see Note 1)		
Note: Indicate the specific point(s) of emission control application for this emission unit. This must be provided as part of the process flow diagram as required in section 7 of the General Information section of the application form.		

Note 1: Specify "uncontrolled" if no pollution control device is installed.

Note 2: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology

- Control Efficiency Ratings provided in Attachment 4.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 5 - Identify and Describe Compliance Monitoring Devices or Activities (attach additional pages if necessary)

- 1. Monitor and record the throughput rate for the system consisting of S2.104 – S2.105 on a daily basis.**
- 2. Monitor and record the hours of operation for the system consisting of S2.104 – S2.105 on a daily basis.**
- 3. Monitor and record the throughput rate for the system consisting of S2.104 – S2.105 on a cumulative monthly basis, for each 12-month rolling period.**
- 4. Conduct a weekly observation of the Baghouse (DC 611) and verify that the Baghouse (DC 611) is operating normally; record the time of observation and indicate the status of the Baghouse (DC 611). Record and verify that any maintenance work on the Baghouse (DC 611) is done in accordance with the O&M Plan.**
- 5. Conduct and record a weekly visible emission inspection of the Baghouse (DC 611); record the time of the survey and indicate whether any visible emission was observed. If any visible emissions are observed, conduct and record a Method 9 visible emissions test within 24 hours and perform any necessary corrective actions. The Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, Method 9.**
- 6. The required monitoring established above, will be maintained in a contemporaneous log containing at a minimum, the following recordkeeping:**
 - a. The calendar date of any required monitoring.**
 - b. The total daily throughput rate for the system consisting of Baghouse (DC-611) in tons, for the corresponding date.**
 - c. The total daily hours of operation for the corresponding date.**
 - d. The corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate will be determined from the daily throughput rate and the total daily hours of operation recorded in (b) and (c) above.**
 - e. The cumulative monthly throughput rate in tons, for each 12-month rolling period.**
 - f. The results and verification of the opacity observations required in 5 above.**

Section 6 - Identify and Describe Work Practice Standards, Etc. (attach additional pages if necessary)

At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 7 - Requested Emission Limits

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)	0.41	1.80	See Table 1
Particulates as PM ₁₀	0.41	1.80	See Table 1
Particulates as PM _{2.5}	0.15	0.63	See Table 1b
Sulfur Dioxide			
Carbon Monoxide			
Oxides of Nitrogen			
Volatile Organic Compounds			
Lead			
Hydrogen Sulfide			
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 3 - Fuel Usage

(This section only applies to fuel consumed/combusted within the process unit. Fuels consumed/combusted in combustion units are to be listed on the Combustion Equipment Application Form.)

Type of Fuel	Amount Used Per Hour	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)
Oil- Specify Type(s)					
	gallons				
	gallons				
Gasoline	gallons				
Propane	cubic feet				
Natural Gas	cubic feet				
*Waste Oil	gallons				
Other	NO FUEL USED				

Type of Fuel	Amount Used Per Hour (tons)	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)	Percent moisture	Percent volatile matter	Percent fixed carbon
Coal - Specify Type(s)								

If more than one type of fuel is combusted, under this operating scenario please specify primary fuel and percentage on a maximum hourly and annual basis (if fuel blending is the primary fuel, identify percentages of each fuel blended). Attach additional information to this form if necessary.

*Firing of waste oil will require multi metals test to insure fuel is non-hazardous.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 4 - Pollution Control Equipment/Exhaust Stack Parameters (this section must be completed)

-Complete for emissions exhausting through a stack, chimney or vent: (baghouse, wet scrubber, cyclone, low NO_x burner, no control, etc.)

	Control #1	Control #2
Type of Control (See Note 1)	DC-612 Baghouse	
Pollutant(s) Controlled	PM/PM₁₀	
Manufacturer	Mikropul (1995)	
Manufacturer's Guarantee (see Note 2)	99% efficiency	
Stack height (feet from ground level)	50.0 ft	
Stack inside diameter (feet)	0.94 ft	
Temperature (°F) at design capacity	Ambient	
Stack exit velocity (feet per second)	72.05	
Gas volume flow rate: Actual cubic feet per minute	3,000	
Gas volume flow rate: Dry standard cubic feet per minute	2,645	
Unusual stack characteristics (e.g. raincap, horizontal discharge)		

-Complete for emissions not exhausting through a stack, chimney or vent: (water sprays, fogging water sprays, pneumatic fogging system, high moisture ore, no control, etc.)

	Control #1	Control #2
Type of Control (See Note 1)		
Pollutant(s) Controlled		
Manufacturer		
Manufacturer's Guarantee (see Note 1)		
<p>Note: Indicate the specific point(s) of emission control application for this emission unit. This must be provided as part of the process flow diagram as required in section 7 of the General Information section of the application form.</p>		

Note 1: Specify "uncontrolled" if no pollution control device is installed.

Note 2: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology

- Control Efficiency Ratings provided in Attachment 4.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 5 - Identify and Describe Compliance Monitoring Devices or Activities

1. Monitor and record the throughput rate for S2.106 on a daily basis.
2. Monitor and record the hours of operation for S2.106 on a daily basis.
3. Monitor and record the throughput rate for S2.106 on a cumulative monthly basis, for each 12-month rolling period.
4. Conduct a weekly observation of the Baghouse (DC 612) and verify that the Baghouse (DC 612) is operating normally; record the time of observation and indicate the status of the Baghouse (DC 612). Record and verify that any maintenance work on the Baghouse (DC 612) is done in accordance with the O&M Plan.
5. Conduct and record a visible emissions reading on each exit of the load-out building (including but not limited to doors, windows, vents, chimney's, etc.) on a weekly basis. Visible emissions readings will use the procedures contained in 40 CFR Part 60, Appendix A, Method 9. The visible emissions reading must be conducted by a certified visible emissions reader for a period of 6 minutes and must be made while these emission units are operating and have the potential to create visible emissions. The Method 9 visible emissions reading requirement can be waived for each exit of the building enclosure (including but not limited to doors, windows, vents, chimney's, etc.) providing the following conditions are met.
 - (a) A survey of each exit of the building enclosure (including but not limited to doors, windows, vents, chimney's, etc.) must be made in accordance with the procedures contained in 40 CFR Part 60, Appendix A, Method 22. The survey will be conducted for a minimum of 6 minutes.
 - (b) If the survey detects visible emissions, excluding condensed water vapor, for more than 18 seconds of the survey time, a Method 9 visible emission reading must be conducted by a certified visible emissions reader within 1 hour of the initial survey.
 - (c) The results of the survey including date and time, and any corrective action taken (including the result of any further Method 9 visible emission reading) will be recorded in a contemporaneous log.
6. The required monitoring established above, will be maintained in a contemporaneous log containing at a minimum, the following recordkeeping:
 - a. The calendar date of any required monitoring.
 - b. The total daily throughput rate for the system consisting of Baghouse (DC-612) in tons, for the corresponding date.
 - c. The total daily hours of operation for the corresponding date.
 - d. The corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate will be determined from the daily throughput rate and the total daily hours of operation recorded in (b) and (c) above.
 - e. The cumulative monthly throughput rate in tons, for each 12-month rolling period.
 - f. The results and verification of the opacity observations required in 5 above.

Section 6 - Identify and Describe Work Practice Standards, Etc. (attach additional pages if necessary)

At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 7 - Requested Emission Limits

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)	0.308	1.35	See Table 1
Particulates as PM ₁₀	0.308	1.35	See Table 1
Particulates as PM _{2.5}	0.109	0.48	See Table 1b
Sulfur Dioxide			
Carbon Monoxide			
Oxides of Nitrogen			
Volatile Organic Compounds			
Lead			
Hydrogen Sulfide			
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

LIST OF EMISSION UNIT APPLICATION FORMS

Alternative Operating Mode – Option 06A #1 Raw Mill Used as a Finish Mill

System	Emission Unit	Source Description
06A	S2.017 - S2.022	#1 Raw Mill System – Used as a Finish Mill
21	S2.086 - S2.093	Cement Bulk Loading
25(b)	S2.104 - S2.105	Rail Unloading/Transfer
26	S2.106	Fly Ash Bulk Loading

**INDUSTRIAL PROCESS
APPLICATION FORM
CLASS I OPERATING PERMIT TO CONSTRUCT**

Check here if this is an
alternative operating scenario

Section 1 - Equipment Description

- a. Type of equipment System 06A- #1 Raw Mill System - Used as a Finish Mill
(S2.017 - Conveyor 204 transfer to Bucket Elevator 205; S2.018 - Bucket Elevator 205
transfer to Air Separator 206; S2.019 - Air Separator 206 to Air Slide 207 to Air Slide 207-10;
S2.020 - Air Slide 207-10 transfer to Pump 213-10; S2.021 - #1 Raw Mill 208; S2.022 - 14
MMBtu/hr Natural Gas Fired Heater 211))
- b. Standard Industrial Classification (SIC) Code 3241
- c. Manufacturer of equipment Allis-Chalmers
- d. Model number E055 Serial number 1437 *Equip. number S2.017-S2.022
- e. Date equipment manufactured: 1964
- f. Please check one: Temporary (At the same location for less than 12 months)
 Stationary (At the same location for more than 12 months)
- g. For crushers: size output setting, check one: Primary ($\geq 4''$)
 Secondary ($< 4''$ but $\geq 1''$)
 Tertiary ($< 1''$)
- h. Please check if portable: Portable (transportable or movable within the confines of the stationary source)
- i. UTM Coordinates 4,387,894.0 m N; 305,857.3 m E; Zone 11
(Please specify NAD 27 or NAD 83)
- j. Basic equipment dimensions (feet): L _____ W _____ H _____

*The equipment number is the facility's own numbering system for this piece of equipment.

Section 2 - Design Rate/Operating Parameters

- a. Maximum design capacity (tons per hour) 65 tph
- b. Requested operating rate (tons per hour)* _____
- c. Requested operating time: (time of day)* 12:00 AM to 12:00 AM
Hours per day 24 Days per year 365
- d. Batch load or charge weight (tons) (if applicable) N/A
- e. Total hours required to process batch or charge (if applicable) N/A
- f. Maximum operating rate (tons per year) 569,400 tpy
- g. Requested operating rate (tons per year)* _____
- f. Type of material processed limestone, clay, pozzolan, clinker, gypsum, iron ore & slag
- g. Minimum moisture content _____

*Note: Please complete if other than the maximum design capacity (tons per hour and tons per year) and/or the maximum hours of operation (24 hours per day, 8760 hours per year) are being requested. The permit will be limited to these values.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 3 - Fuel Usage

(This section only applies to fuel consumed/combusted within the process unit. Fuels consumed/combusted in combustion units are to be listed on the Combustion Equipment Application Form.)

Type of Fuel	Amount Used Per Hour	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)
Oil- Specify Type(s)					
#2 fuel oil	100 gallons	139,000 Btu/gal			
	gallons				
Gasoline	gallons				
Propane	cubic feet				
Natural Gas	14,000 cubic feet	1,040 Btu/ft ³			
*Waste Oil	gallons				
Other					

Type of Fuel	Amount Used Per Hour (tons)	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)	Percent moisture	Percent volatile matter	Percent fixed carbon
Coal - Specify Type(s)								

If more than one type of fuel is combusted, under this operating scenario please specify primary fuel and percentage on a maximum hourly and annual basis (if fuel blending is the primary fuel, identify percentages of each fuel blended). Attach additional information to this form if necessary.

*Firing of waste oil will require multi metals test to insure fuel is non-hazardous.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 4 - Pollution Control Equipment/Exhaust Stack Parameters (this section must be completed)

-Complete for emissions exhausting through a stack, chimney or vent: (baghouse, wet scrubber, cyclone, low NO_x burner, no control, etc.)

	Control #1	Control #2
Type of Control (See Note 1)	DC-210 Baghouse	
Pollutant(s) Controlled	PM/PM ₁₀	
Manufacturer	REES	
Manufacturer's Guarantee (see Note 2)	99% efficiency	
Stack height (feet from ground level)	69.9 ft	
Stack inside diameter (feet)	2.99 ft	
Temperature (°F) at design capacity	180 °F	
Stack exit velocity (feet per second)	102.07 ft/sec	
Gas volume flow rate: Actual cubic feet per minute	43,000 acfm	
Gas volume flow rate: Dry standard cubic feet per minute	22,650 dscfm	
Unusual stack characteristics (e.g. raincap, horizontal discharge)	N/A	

-Complete for emissions not exhausting through a stack, chimney or vent: (water sprays, fogging water sprays, pneumatic fogging system, high moisture ore, no control, etc.)

	Control #1	Control #2
Type of Control (See Note 1)	N/A	
Pollutant(s) Controlled	N/A	
Manufacturer	N/A	
Manufacturer's Guarantee (see Note 1)	N/A	
Note: Indicate the specific point(s) of emission control application for this emission unit. This must be provided as part of the process flow diagram as required in section 7 of the General Information section of the application form.		

Note 1: Specify "uncontrolled" if no pollution control device is installed.

Note 2: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology

- Control Efficiency Ratings provided in Attachment 4.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 5 - Identify and Describe Compliance Monitoring Devices or Activities (attach additional pages if necessary)

- 1. Monitor and record the throughput rate for the system consisting of S2.017 – S2.022 on a daily basis.**
- 2. Monitor and record the fuel consumption rate of natural gas for S2.022 on a daily basis.**
- 3. Monitor and record the hours of operation for the system consisting of S2.017 – S2.022 on a daily basis.**
- 4. Monitor and record the throughput rate for the system consisting of S2.017 – S2.022 on a cumulative monthly basis, for each 12-month rolling period.**
- 5. Monitor and record the fuel consumption rate of natural gas for S2.022 on a cumulative monthly basis, for each 12-month rolling period.**
- 6. Conduct a weekly observation of the Baghouse (DC 210) and verify that the Baghouse (DC 210) is operating normally; record the time of observation and indicate the status of the Baghouse (DC 210). Record and verify that any maintenance work on the Baghouse (DC 210) is done in accordance with the O&M Plan.**
- 7. Conduct and record a weekly visible emission inspection of the Baghouse (DC 210); record the time of the survey and indicate whether any visible emission was observed. If any visible emissions are observed, conduct and record a Method 9 visible emissions test within 24 hours and perform any necessary corrective actions. The Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, Method 9.**
- 6. The required monitoring established above, will be maintained in a contemporaneous log containing at a minimum, the following recordkeeping:**
 - a. The calendar date of any required monitoring.**
 - b. The total daily throughput rate for the system consisting of S2.017 – S2.022 in tons, for the corresponding date.**
 - c. The total daily fuel consumption rate for S2.022 in cubic feet, for the corresponding date.**
 - d. The total daily hours of operation for the corresponding date.**
 - e. The corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate will be determined from the daily throughput rate and the total daily hours of operation recorded in (b) and (c) above.**
 - f. The cumulative monthly throughput rate in tons, for each 12-month rolling period.**
 - g. The cumulative monthly fuel consumption rate in cubic feet, for each 12-month rolling period.**

The results and verification of the opacity observations required in 5 above.

Section 6 - Identify and Describe Work Practice Standards, Etc. (attach additional pages if necessary)

At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices.

**STORAGE SILO
APPLICATION FORM
CLASS I OPERATING PERMIT TO CONSTRUCT**

Check here if this is an
alternative operating scenario

Section 1 - Equipment Description

a.	Type of equipment <u>System 21-Cement Bulk Loading</u> <u>(S2.086 - Silo transfers to Air Slides; S2.087 - Air Slides transfer to Bucket Elevator 613;</u> <u>S2.088 - Bucket Elevator 613 to Air Slides 609-4 & 701-1; S2.089 - Air Slides transfer to</u> <u>Loading Spout 627; S2.090 - Silo transfers to North Rail Storage Bin 624; S2.091 - North Rail</u> <u>Bin transfers to Spout 627; S2.092 - #1 Finish Mill Pump 512 transfer into Silos; S2.093 - #2 &</u> <u>3 Finish Mills Pump 2212 and #1 & #2 Raw Mill Pump 213-10 transfer into Silos)</u>
b.	Standard Industrial Classification (SIC) Code <u>3241</u>
c.	Manufacturer of equipment <u>N/A</u>
d.	Model number <u>N/A</u> Serial number <u>N/A</u> *Equip. number <u>S2.086 - S2.093</u>
e.	Date equipment manufactured: <u>1964</u>
f.	Please check one: <input type="checkbox"/> Temporary (At the same location for less than 12 months) <input checked="" type="checkbox"/> Stationary (At the same location for more than 12 months)
g.	Please check if portable: <input type="checkbox"/> Portable (transportable or movable within the confines of the stationary source)
h.	UTM Coordinates <u>4,387,820.0 m N; 305,767.0 m E; Zone 11</u> (Please specify NAD 27 <input checked="" type="checkbox"/> or NAD 83 <input type="checkbox"/>)
i.	Basic equipment dimensions (feet): L _____ W _____ H _____

* The equipment number is the facility's own numbering system for this piece of equipment.

Section 2 - Design Rate/Operating Parameters

a.	Maximum design storage capacity (tons) <u>187.9 tph</u>
b.	Maximum loading rate (tons per hour) <u>187.9 tph</u> Loading time (hours to fill) <u>24</u>
c.	*Requested loading rate (tons per hour): <u>187.9 tph</u> *Hours per day <u>24</u> Days per year <u>365</u> Hours per year <u>8,760</u>
d.	Maximum unloading rate (tons per hour) <u>187.9 tph</u>
e.	Method of unloading (screw auger, etc.) _____
f.	Continuous or batch discharge _____
g.	Requested unloading rate (tons per hour) <u>187.9 tph</u> Requested unloading rate (tons per year) <u>1,646,004 tpy</u>
h.	Requested unloading time: Hours per day <u>24</u> Time of day <u>12:00 AM</u> to <u>12:00 AM</u> Hours per day <u>24</u> Days per year <u>365</u> Hours per year <u>8,760</u>
i.	Material type processed (lime, cement, flyash, etc.) <u>Portland cement, pozzolan</u>

*Note: Please complete if other than the maximum loading rate (tons per hour), and/or the maximum hours of operation (24 hours per day, 8760 hours per year), are being requested. The permit will be limited to these values.

Section 3 -Reserved

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 4 - Pollution Control Equipment (this section *must* be completed)

-Complete for emissions exhausting through a silo stack, chimney or vent during silo loading process:
(baghouse, wet scrubber, cyclone, no control, etc.)

	Control #1	Control #2
Type of Control: (See Note 1)	DC-618 Baghouse	
Pollutant(s) Controlled	PM/PM₁₀	
Manufacturer	Staclean Model #216-8*-AS; Serial # J-005	
Manufacturer's Guarantee (see Note 2)	99% efficiency	
Stack height (feet from ground level)	111.9 ft	
Stack inside diameter (feet)	1.78 ft equivalent diameter (19" x 19" square)	
Temperature (°F) at design capacity	125°F	
Stack exit velocity (feet per second)	82.78 ft/sec	
Gas volume flow rate: actual cubic feet per minute	12,360 acfm	
Gas volume flow rate: dry standard cubic feet per minute	10,236 dscfm	
Unusual stack charac- teristics (e.g., raincap, horizontal discharge)	horizontal	

-Complete for emissions exhausting through a silo stack, chimney or vent during silo unloading process:
(baghouse, wet scrubber, cyclone, no control, etc.)

	Control #1	Control #2
Type of Control: (See Note 1)	DC-618 Baghouse	
Pollutant(s) Controlled	PM/PM₁₀	
Manufacturer	Staclean Model #216-8*-AS; Serial # J-005	
Manufacturer's Guarantee (see Note 2)	99% efficiency	
Stack height (feet from ground level)	111.9 ft	
Stack inside diameter (feet)	1.78 ft equivalent diameter (19" x 19" square)	
Temperature (°F) at design capacity	125°F	
Stack exit velocity (feet per second)	82.78 ft/sec	
Gas volume flow rate: actual cubic feet per minute	12,360 acfm	
Gas volume flow rate: dry standard cubic feet per minute	10,236 dscfm	
Unusual stack charac- teristics (e.g., raincap, horizontal discharge)		

Note 1: Specify "uncontrolled" if no pollution control device is installed.

Note 2: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 4 - Pollution Control Equipment (continued)

-Complete for emissions not exhausting through a stack during silo unloading process: (water sprays, fogging water sprays, pneumatic fogging system, high moisture ore, no control, etc.)

	Control #1	Control #2
Type of Control: (Specify "uncontrolled" if no pollution control device is installed)	N/A	
Pollutant(s) Controlled	N/A	
Manufacturer	N/A	
Manufacturer's Guarantee (see Note 1)	N/A	

Note 1: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 5 - Identify and Describe Compliance Monitoring Devices or Activities (attach additional pages if necessary)

- 1. Monitor and record the throughput rate for the system consisting of S2.086 – S2.093 on a daily basis.**
- 2. Monitor and record the hours of operation for the system consisting of S2.086 – S2.093 on a daily basis.**
- 3. Monitor and record the throughput rate for the system consisting of S2.086 – S2.093 on a cumulative monthly basis, for each 12-month rolling period.**
- 4. Conduct a weekly observation of the Baghouse (DC 618) and verify that the Baghouse (DC 618) is operating normally; record the time of observation and indicate the status of the Baghouse (DC 618). Record and verify that any maintenance work on the Baghouse (DC 618) is done in accordance with the O&M Plan.**
- 5. Conduct and record a weekly visible emission inspection of the Baghouse (DC 618); record the time of the survey and indicate whether any visible emission was observed. If any visible emissions are observed, conduct and record a Method 9 visible emissions test within 24 hours and perform any necessary corrective actions. The Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, Method 9.**
- 6. The required monitoring established above, will be maintained in a contemporaneous log containing at a minimum, the following recordkeeping:**
 - a. The calendar date of any required monitoring.**
 - b. The total daily throughput rate for the system consisting of Baghouse (DC-618) in tons, for the corresponding date.**
 - c. The total daily hours of operation for the corresponding date.**
 - d. The corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate will be determined from the daily throughput rate and the total daily hours of operation recorded in (b) and (c) above.**
 - e. The cumulative monthly throughput rate in tons, for each 12-month rolling period.**
 - f. The results and verification of the opacity observations required in 5 above.**

Section 6 - Identify and Describe Work Practice Standards, Etc. (attach additional pages if necessary)

At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 7 - Requested Emission Limits - Silo Loading

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)	2.12	9.28	See Table 1
Particulates as PM ₁₀	2.12	9.28	See Table 1
Particulates as PM _{2.5}	0.75	3.28	See Table 1b
Sulfur Dioxide			
Carbon Monoxide			
Oxides of Nitrogen			
Volatile Organic Compounds			
Lead			
Hydrogen Sulfide			
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 7 (continued) - Requested Emission Limits - Silo Unloading

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)			
Particulates as PM ₁₀	N/A	N/A	See Section 7 above (Silo Loading)
Sulfur Dioxide			
Carbon Monoxide			
Oxides of Nitrogen			
Volatile Organic Compounds			
Lead			
Hydrogen Sulfide			
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.
¹A list of Hazardous Air Pollutants is contained in Attachment 4.
²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 3 - Fuel Usage

(This section only applies to fuel consumed/combusted within the process unit. Fuels consumed/combusted in combustion units are to be listed on the Combustion Equipment Application Form.)

Type of Fuel	Amount Used Per Hour	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)
Oil- Specify Type(s)					
	gallons				
	gallons				
Gasoline	gallons				
Propane	cubic feet				
Natural Gas	cubic feet				
*Waste Oil	gallons				
Other	NO FUEL USED				

Type of Fuel	Amount Used Per Hour (tons)	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)	Percent moisture	Percent volatile matter	Percent fixed carbon
Coal - Specify Type(s)								

If more than one type of fuel is combusted, under this operating scenario please specify primary fuel and percentage on a maximum hourly and annual basis (if fuel blending is the primary fuel, identify percentages of each fuel blended). Attach additional information to this form if necessary.

*Firing of waste oil will require multi metals test to insure fuel is non-hazardous.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 4 - Pollution Control Equipment/Exhaust Stack Parameters (this section must be completed)

-Complete for emissions **exhausting through a stack, chimney or vent**: (baghouse, wet scrubber, cyclone, low NO_x burner, no control, etc.)

	Control #1	Control #2
Type of Control (See Note 1)	DC-611 Baghouse	
Pollutant(s) Controlled	PM/PM₁₀	
Manufacturer	Mikropul (1995)	
Manufacturer's Guarantee (see Note 2)	99% efficiency	
Stack height (feet from ground level)	60.0 ft	
Stack inside diameter (feet)	0.94 ft	
Temperature (°F) at design capacity	Ambient	
Stack exit velocity (feet per second)	48.03	
Gas volume flow rate: Actual cubic feet per minute	2,000	
Gas volume flow rate: Dry standard cubic feet per minute	1,764	
Unusual stack charac- teristics (e.g. raincap, horizontal discharge)		

-Complete for emissions **not** exhausting through a stack, chimney or vent: (water sprays, fogging water sprays, pneumatic fogging system, high moisture ore, no control, etc.)

	Control #1	Control #2
Type of Control (See Note 1)		
Pollutant(s) Controlled		
Manufacturer		
Manufacturer's Guarantee (see Note 1)		
<p>Note: Indicate the specific point(s) of emission control application for this emission unit. This must be provided as part of the process flow diagram as required in section 7 of the General Information section of the application form.</p>		

Note 1: Specify "uncontrolled" if no pollution control device is installed.

Note 2: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology

- Control Efficiency Ratings provided in Attachment 4.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 5 - Identify and Describe Compliance Monitoring Devices or Activities (attach additional pages if necessary)

- 1. Monitor and record the throughput rate for the system consisting of S2.104 – S2.105 on a daily basis.**
- 2. Monitor and record the hours of operation for the system consisting of S2.104 – S2.105 on a daily basis.**
- 3. Monitor and record the throughput rate for the system consisting of S2.104 – S2.105 on a cumulative monthly basis, for each 12-month rolling period.**
- 4. Conduct a weekly observation of the Baghouse (DC 611) and verify that the Baghouse (DC 611) is operating normally; record the time of observation and indicate the status of the Baghouse (DC 611). Record and verify that any maintenance work on the Baghouse (DC 611) is done in accordance with the O&M Plan.**
- 5. Conduct and record a weekly visible emission inspection of the Baghouse (DC 611); record the time of the survey and indicate whether any visible emission was observed. If any visible emissions are observed, conduct and record a Method 9 visible emissions test within 24 hours and perform any necessary corrective actions. The Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, Method 9.**
- 6. The required monitoring established above, will be maintained in a contemporaneous log containing at a minimum, the following recordkeeping:**
 - a. The calendar date of any required monitoring.**
 - b. The total daily throughput rate for the system consisting of Baghouse (DC-611) in tons, for the corresponding date.**
 - c. The total daily hours of operation for the corresponding date.**
 - d. The corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate will be determined from the daily throughput rate and the total daily hours of operation recorded in (b) and (c) above.**
 - e. The cumulative monthly throughput rate in tons, for each 12-month rolling period.**
 - f. The results and verification of the opacity observations required in 5 above.**

Section 6 - Identify and Describe Work Practice Standards, Etc. (attach additional pages if necessary)

At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 7 - Requested Emission Limits

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)	0.41	1.80	See Table 1
Particulates as PM ₁₀	0.41	1.80	See Table 1
Particulates as PM _{2.5}	0.15	0.63	See Table 1b
Sulfur Dioxide			
Carbon Monoxide			
Oxides of Nitrogen			
Volatile Organic Compounds			
Lead			
Hydrogen Sulfide			
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 3 - Fuel Usage

(This section only applies to fuel consumed/combusted within the process unit. Fuels consumed/combusted in combustion units are to be listed on the Combustion Equipment Application Form.)

Type of Fuel	Amount Used Per Hour	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)
Oil- Specify Type(s)					
	gallons				
	gallons				
Gasoline	gallons				
Propane	cubic feet				
Natural Gas	cubic feet				
*Waste Oil	gallons				
Other	NO FUEL USED				

Type of Fuel	Amount Used Per Hour (tons)	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)	Percent moisture	Percent volatile matter	Percent fixed carbon
Coal - Specify Type(s)								

If more than one type of fuel is combusted, under this operating scenario please specify primary fuel and percentage on a maximum hourly and annual basis (if fuel blending is the primary fuel, identify percentages of each fuel blended). Attach additional information to this form if necessary.

*Firing of waste oil will require multi metals test to insure fuel is non-hazardous.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 4 - Pollution Control Equipment/Exhaust Stack Parameters (this section must be completed)

-Complete for emissions exhausting through a stack, chimney or vent: (baghouse, wet scrubber, cyclone, low NO_x burner, no control, etc.)

	Control #1	Control #2
Type of Control (See Note 1)	DC-612 Baghouse	
Pollutant(s) Controlled	PM/PM₁₀	
Manufacturer	Mikropul (1995)	
Manufacturer's Guarantee (see Note 2)	99% efficiency	
Stack height (feet from ground level)	50.0 ft	
Stack inside diameter (feet)	0.94 ft	
Temperature (°F) at design capacity	Ambient	
Stack exit velocity (feet per second)	72.05	
Gas volume flow rate: Actual cubic feet per minute	3,000	
Gas volume flow rate: Dry standard cubic feet per minute	2,645	
Unusual stack charac- teristics (e.g. raincap, horizontal discharge)		

-Complete for emissions not exhausting through a stack, chimney or vent: (water sprays, fogging water sprays, pneumatic fogging system, high moisture ore, no control, etc.)

	Control #1	Control #2
Type of Control (See Note 1)		
Pollutant(s) Controlled		
Manufacturer		
Manufacturer's Guarantee (see Note 1)		
<p>Note: Indicate the specific point(s) of emission control application for this emission unit. This must be provided as part of the process flow diagram as required in section 7 of the General Information section of the application form.</p>		

Note 1: Specify "uncontrolled" if no pollution control device is installed.

Note 2: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology

- Control Efficiency Ratings provided in Attachment 4.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 5 - Identify and Describe Compliance Monitoring Devices or Activities

1. Monitor and record the throughput rate for S2.106 on a daily basis.
2. Monitor and record the hours of operation for S2.106 on a daily basis.
3. Monitor and record the throughput rate for S2.106 on a cumulative monthly basis, for each 12-month rolling period.
4. Conduct a weekly observation of the Baghouse (DC 612) and verify that the Baghouse (DC 612) is operating normally; record the time of observation and indicate the status of the Baghouse (DC 612). Record and verify that any maintenance work on the Baghouse (DC 612) is done in accordance with the O&M Plan.
5. Conduct and record a visible emissions reading on each exit of the load-out building (including but not limited to doors, windows, vents, chimney's, etc.) on a weekly basis. Visible emissions readings will use the procedures contained in 40 CFR Part 60, Appendix A, Method 9. The visible emissions reading must be conducted by a certified visible emissions reader for a period of 6 minutes and must be made while these emission units are operating and have the potential to create visible emissions. The Method 9 visible emissions reading requirement can be waived for each exit of the building enclosure (including but not limited to doors, windows, vents, chimney's, etc.) providing the following conditions are met.
 - (a) A survey of each exit of the building enclosure (including but not limited to doors, windows, vents, chimney's, etc.) must be made in accordance with the procedures contained in 40 CFR Part 60, Appendix A, Method 22. The survey will be conducted for a minimum of 6 minutes.
 - (b) If the survey detects visible emissions, excluding condensed water vapor, for more than 18 seconds of the survey time, a Method 9 visible emission reading must be conducted by a certified visible emissions reader within 1 hour of the initial survey.
 - (c) The results of the survey including date and time, and any corrective action taken (including the result of any further Method 9 visible emission reading) will be recorded in a contemporaneous log.
6. The required monitoring established above, will be maintained in a contemporaneous log containing at a minimum, the following recordkeeping:
 - a. The calendar date of any required monitoring.
 - b. The total daily throughput rate for the system consisting of Baghouse (DC-612) in tons, for the corresponding date.
 - c. The total daily hours of operation for the corresponding date.
 - d. The corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate will be determined from the daily throughput rate and the total daily hours of operation recorded in (b) and (c) above.
 - e. The cumulative monthly throughput rate in tons, for each 12-month rolling period.
 - f. The results and verification of the opacity observations required in 5 above.

Section 6 - Identify and Describe Work Practice Standards, Etc. (attach additional pages if necessary)

At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 7 - Requested Emission Limits

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)	0.308	1.35	See Table 1
Particulates as PM ₁₀	0.308	1.35	See Table 1
Particulates as PM _{2.5}	0.109	0.48	See Table 1b
Sulfur Dioxide			
Carbon Monoxide			
Oxides of Nitrogen			
Volatile Organic Compounds			
Lead			
Hydrogen Sulfide			
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

LIST OF EMISSION UNIT APPLICATION FORMS

Alternative Operating Mode – Option 6B #1 Raw Mill Acting as a Pre-Grind Mill then Transferring Dried/Ground Pozzolan to the #1 Finish Mill

System	Emission Unit	Source Description
06B	S2.017 - S2.022	#1 Raw Mill System – Used as a Pre-Grind Mill
11	S2.043 – S2.049	#1 Finish Mill Operations
21	S2.086 - S2.093	Cement Bulk Loading
25(b)	S2.104 - S2.105	Rail Unloading/Transfer
26	S2.106	Fly Ash Bulk Loading

**INDUSTRIAL PROCESS
APPLICATION FORM
CLASS I OPERATING PERMIT TO CONSTRUCT**

Check here if this is an
alternative operating scenario

Section 1 - Equipment Description

- a. Type of equipment System 06B- #1 Raw Mill System - Used as a Pre-Grind Mill & Transfer to #1 Finish Mill (S2.017 - Conveyor 204 transfer to Bucket Elevator 205; S2.018 - Bucket Elevator 205 transfer to Air Separator 206; S2.019 - Air Separator 206 to Air Slide 207-11; S2.020 - Air Slide 207-11 transfer to #1 Finish Mill 505; S2.021 - #1 Raw Mill 208; S2.022 - 14 MMBtu/hr Natural Gas Fired Heater 211)
- b. Standard Industrial Classification (SIC) Code 3241
- c. Manufacturer of equipment Allis-Chalmers
- d. Model number E055 Serial number 1437 *Equip. number S2.017-S2.022
- e. Date equipment manufactured: 1964
- f. Please check one: Temporary (At the same location for less than 12 months)
 Stationary (At the same location for more than 12 months)
- g. For crushers: size output setting, check one: Primary ($\geq 4''$)
 Secondary ($< 4''$ but $\geq 1''$)
 Tertiary ($< 1''$)
- h. Please check if portable: Portable (transportable or movable within the confines of the stationary source)
- i. UTM Coordinates 4,387,894.0 m N; 305,857.3 m E; Zone 11
(Please specify NAD 27 or NAD 83)
- j. Basic equipment dimensions (feet): L _____ W _____ H _____

*The equipment number is the facility's own numbering system for this piece of equipment.

Section 2 - Design Rate/Operating Parameters

- a. Maximum design capacity (tons per hour) 33 tph
- b. Requested operating rate (tons per hour)* _____
- c. Requested operating time: (time of day)* 12:00 AM to 12:00 AM
Hours per day 24 Days per year 365
- d. Batch load or charge weight (tons) (if applicable) N/A
- e. Total hours required to process batch or charge (if applicable) N/A
- f. Maximum operating rate (tons per year) 289,080 tpy
- g. Requested operating rate (tons per year)* _____
- f. Type of material processed limestone, clay, pozzolan, clinker, gypsum, iron ore & slag
- g. Minimum moisture content _____

*Note: Please complete if other than the maximum design capacity (tons per hour and tons per year) and/or the maximum hours of operation (24 hours per day, 8760 hours per year) are being requested. The permit will be limited to these values.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 3 - Fuel Usage

(This section only applies to fuel consumed/combusted within the process unit. Fuels consumed/combusted in combustion units are to be listed on the Combustion Equipment Application Form.)

Type of Fuel	Amount Used Per Hour	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)
Oil- Specify Type(s)					
#2 fuel oil	100 gallons	139,000 Btu/gal			
	gallons				
Gasoline	gallons				
Propane	cubic feet				
Natural Gas	14,000 cubic feet	1,040 Btu/ft ³			
*Waste Oil	gallons				
Other					

Type of Fuel	Amount Used Per Hour (tons)	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)	Percent moisture	Percent volatile matter	Percent fixed carbon
Coal - Specify Type(s)								

If more than one type of fuel is combusted, under this operating scenario please specify primary fuel and percentage on a maximum hourly and annual basis (if fuel blending is the primary fuel, identify percentages of each fuel blended). Attach additional information to this form if necessary.

*Firing of waste oil will require multi metals test to insure fuel is non-hazardous.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 4 - Pollution Control Equipment/Exhaust Stack Parameters (this section must be completed)

-Complete for emissions exhausting through a stack, chimney or vent: (baghouse, wet scrubber, cyclone, low NO_x burner, no control, etc.)

	Control #1	Control #2
Type of Control (See Note 1)	DC-210 Baghouse	
Pollutant(s) Controlled	PM/PM₁₀	
Manufacturer	REES	
Manufacturer's Guarantee (see Note 2)	99% efficiency	
Stack height (feet from ground level)	69.9 ft	
Stack inside diameter (feet)	2.99 ft	
Temperature (°F) at design capacity	180 °F	
Stack exit velocity (feet per second)	102.07 ft/sec	
Gas volume flow rate: Actual cubic feet per minute	43,000 acfm	
Gas volume flow rate: Dry standard cubic feet per minute	22,650 dscfm	
Unusual stack characteristics (e.g. raincap, horizontal discharge)	N/A	

-Complete for emissions not exhausting through a stack, chimney or vent: (water sprays, fogging water sprays, pneumatic fogging system, high moisture ore, no control, etc.)

	Control #1	Control #2
Type of Control (See Note 1)	N/A	
Pollutant(s) Controlled	N/A	
Manufacturer	N/A	
Manufacturer's Guarantee (see Note 1)	N/A	
<p>Note: Indicate the specific point(s) of emission control application for this emission unit. This must be provided as part of the process flow diagram as required in section 7 of the General Information section of the application form.</p>		

Note 1: Specify "uncontrolled" if no pollution control device is installed.

Note 2: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology

- Control Efficiency Ratings provided in Attachment 4.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 5 - Identify and Describe Compliance Monitoring Devices or Activities (attach additional pages if necessary)

- 1. Monitor and record the throughput rate for the system consisting of S2.017 – S2.022 on a daily basis.**
- 2. Monitor and record the fuel consumption rate of natural gas for S2.022 on a daily basis.**
- 3. Monitor and record the hours of operation for the system consisting of S2.017 – S2.022 on a daily basis.**
- 4. Monitor and record the throughput rate for the system consisting of S2.017 – S2.022 on a cumulative monthly basis, for each 12-month rolling period.**
- 5. Monitor and record the fuel consumption rate of natural gas for S2.022 on a cumulative monthly basis, for each 12-month rolling period.**
- 6. Conduct a weekly observation of the Baghouse (DC 210) and verify that the Baghouse (DC 210) is operating normally; record the time of observation and indicate the status of the Baghouse (DC 210). Record and verify that any maintenance work on the Baghouse (DC 210) is done in accordance with the O&M Plan.**
- 7. Conduct and record a weekly visible emission inspection of the Baghouse (DC 210); record the time of the survey and indicate whether any visible emission was observed. If any visible emissions are observed, conduct and record a Method 9 visible emissions test within 24 hours and perform any necessary corrective actions. The Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, Method 9.**
- 6. The required monitoring established above, will be maintained in a contemporaneous log containing at a minimum, the following recordkeeping:**
 - a. The calendar date of any required monitoring.**
 - b. The total daily throughput rate for the system consisting of S2.017 – S2.022 in tons, for the corresponding date.**
 - c. The total daily fuel consumption rate for S2.022 in cubic feet, for the corresponding date.**
 - d. The total daily hours of operation for the corresponding date.**
 - e. The corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate will be determined from the daily throughput rate and the total daily hours of operation recorded in (b) and (c) above.**
 - f. The cumulative monthly throughput rate in tons, for each 12-month rolling period.**
 - g. The cumulative monthly fuel consumption rate in cubic feet, for each 12-month rolling period.**

The results and verification of the opacity observations required in 5 above.

Section 6 - Identify and Describe Work Practice Standards, Etc. (attach additional pages if necessary)

At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 3 - Fuel Usage

(This section only applies to fuel consumed/combusted within the process unit. Fuels consumed/combusted in combustion units are to be listed on the Combustion Equipment Application Form.)

Type of Fuel	Amount Used Per Hour	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)
Oil- Specify Type(s)					
	gallons				
	gallons				
Gasoline	gallons				
Propane	cubic feet				
Natural Gas					
*Waste Oil	gallons				
Other	NO FUEL USED				

Type of Fuel	Amount Used Per Hour (tons)	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)	Percent moisture	Percent volatile matter	Percent fixed carbon
Coal - Specify Type(s)								

If more than one type of fuel is combusted, under this operating scenario please specify primary fuel and percentage on a maximum hourly and annual basis (if fuel blending is the primary fuel, identify percentages of each fuel blended). Attach additional information to this form if necessary.

*Firing of waste oil will require multi metals test to insure fuel is non-hazardous.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 4 - Pollution Control Equipment/Exhaust Stack Parameters (this section must be completed)

-Complete for emissions exhausting through a stack, chimney or vent: (baghouse, wet scrubber, cyclone, low NO_x burner, no control, etc.)

	Control #1	Control #2
Type of Control (See Note 1)	DC-510 Baghouse	
Pollutant(s) Controlled	PM/PM₁₀	
Manufacturer	Rees Blowpipe, S/N 42400 AE 1964	
Manufacturer's Guarantee (see Note 2)	99% efficiency	
Stack height (feet from ground level)	65 ft	
Stack inside diameter (feet)	2 ft	
Temperature (°F) at design capacity	160°F	
Stack exit velocity (feet per second)	96.45 ft/sec	
Gas volume flow rate: Actual cubic feet per minute	18,180 acfm	
Gas volume flow rate: Dry standard cubic feet per minute	11,205 dscfm	
Unusual stack charac- teristics (e.g. raincap, horizontal discharge)	N/A	

-Complete for emissions not exhausting through a stack, chimney or vent: (water sprays, fogging water sprays, pneumatic fogging system, high moisture ore, no control, etc.)

	Control #1	Control #2
Type of Control (See Note 1)	N/A	
Pollutant(s) Controlled	N/A	
Manufacturer	N/A	
Manufacturer's Guarantee (see Note 1)	N/A	

Note: Indicate the specific point(s) of emission control application for this emission unit. This must be provided as part of the process flow diagram as required in section 7 of the General Information section of the application form.

Note 1: Specify "uncontrolled" if no pollution control device is installed.

Note 2: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology

- Control Efficiency Ratings provided in Attachment 4.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 5 - Identify and Describe Compliance Monitoring Devices or Activities (attach additional pages if necessary)

- 1. Monitor and record the throughput rate for the system consisting of S2.043 – S2.049 on a daily basis.**
- 2. Monitor and record the hours of operation for the system consisting of S2.043 – S2.049 on a daily basis.**
- 3. Monitor and record the throughput rate for the system consisting of S2.043 – S2.049 on a cumulative monthly basis, for each 12-month rolling period.**
- 4. Conduct a weekly observation of the Baghouse (DC 510) and verify that the Baghouse (DC 510) is operating normally; record the time of observation and indicate the status of the Baghouse (DC 510). Record and verify that any maintenance work on the Baghouse (DC 510) is done in accordance with the O&M Plan.**
- 5. Conduct and record a weekly visible emission inspection of the Baghouse (DC 510); record the time of the survey and indicate whether any visible emission was observed. If any visible emissions are observed, conduct and record a Method 9 visible emissions test within 24 hours and perform any necessary corrective actions. The Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, Method 9.**
- 6. The required monitoring established above, will be maintained in a contemporaneous log containing at a minimum, the following recordkeeping:**
 - a. The calendar date of any required monitoring.**
 - b. The total daily throughput rate for the system consisting of S2.051 – S2.058 in tons, for the corresponding date.**
 - c. The total daily hours of operation for the corresponding date.**
 - d. The corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate will be determined from the daily throughput rate and the total daily hours of operation recorded in (b) and (c) above.**
 - e. The cumulative monthly throughput rate in tons, for each 12-month rolling period.**
 - f. The cumulative monthly hours of operation, for each 12-month rolling period.**
 - g. The results and verification of the opacity observations required in 5 above.**

Section 6 - Identify and Describe Work Practice Standards, Etc. (attach additional pages if necessary)

At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 7 - Requested Emission Limits

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)	3.12	13.65	See Table 1
Particulates as PM ₁₀	3.12	13.65	See Table 1
Particulates as PM _{2.5}	1.10	4.82	See Table 1b
Sulfur Dioxide			
Carbon Monoxide			
Oxides of Nitrogen			
Volatile Organic Compounds			
Lead			
Hydrogen Sulfide			
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

**STORAGE SILO
APPLICATION FORM
CLASS I OPERATING PERMIT TO CONSTRUCT**

Check here if this is an
alternative operating scenario

Section 1 - Equipment Description

a.	Type of equipment <u>System 21-Cement Bulk Loading</u> <u>(S2.086 - Silo transfers to Air Slides; S2.087 - Air Slides transfer to Bucket Elevator 613;</u> <u>S2.088 - Bucket Elevator 613 to Air Slides 609-4 & 701-1; S2.089 - Air Slides transfer to</u> <u>Loading Spout 627; S2.090 - Silo transfers to North Rail Storage Bin 624; S2.091 - North Rail</u> <u>Bin transfers to Spout 627; S2.092 - #1 Finish Mill Pump 512 transfer into Silos; S2.093 - #2 &</u> <u>3 Finish Mills Pump 2212 and #1 & #2 Raw Mill Pump 213-10 transfer into Silos)</u>
b.	Standard Industrial Classification (SIC) Code <u>3241</u>
c.	Manufacturer of equipment <u>N/A</u>
d.	Model number <u>N/A</u> Serial number <u>N/A</u> *Equip. number <u>S2.086 - S2.093</u>
e.	Date equipment manufactured: <u>1964</u>
f.	Please check one: <input type="checkbox"/> Temporary (At the same location for less than 12 months) <input checked="" type="checkbox"/> Stationary (At the same location for more than 12 months)
g.	Please check if portable: <input type="checkbox"/> Portable (transportable or movable within the confines of the stationary source)
h.	UTM Coordinates <u>4,387,820.0 m N; 305,767.0 m E; Zone 11</u> (Please specify NAD 27 <input checked="" type="checkbox"/> or NAD 83 <input type="checkbox"/>)
i.	Basic equipment dimensions (feet): L _____ W _____ H _____

* The equipment number is the facility's own numbering system for this piece of equipment.

Section 2 - Design Rate/Operating Parameters

a.	Maximum design storage capacity (tons) <u>187.9 tph</u>
b.	Maximum loading rate (tons per hour) <u>187.9 tph</u> Loading time (hours to fill) <u>24</u>
c.	*Requested loading rate (tons per hour): <u>187.9 tph</u> *Hours per day <u>24</u> Days per year <u>365</u> Hours per year <u>8,760</u>
d.	Maximum unloading rate (tons per hour) <u>187.9 tph</u>
e.	Method of unloading (screw auger, etc.) _____
f.	Continuous or batch discharge _____
g.	Requested unloading rate (tons per hour) <u>187.9 tph</u> Requested unloading rate (tons per year) <u>1,646,004 tpy</u>
h.	Requested unloading time: Hours per day <u>24</u> Time of day <u>12:00 AM</u> to <u>12:00 AM</u> Hours per day <u>24</u> Days per year <u>365</u> Hours per year <u>8,760</u>
i.	Material type processed (lime, cement, flyash, etc.) <u>Portland cement, pozzolan</u>

*Note: Please complete if other than the maximum loading rate (tons per hour), and/or the maximum hours of operation (24 hours per day, 8760 hours per year), are being requested. The permit will be limited to these values.

Section 3 -Reserved

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 4 - Pollution Control Equipment (this section *must* be completed)

-Complete for emissions exhausting through a silo stack, chimney or vent during silo loading process:
(baghouse, wet scrubber, cyclone, no control, etc.)

	Control #1	Control #2
Type of Control: (See Note 1)	DC-618 Baghouse	
Pollutant(s) Controlled	PM/PM₁₀	
Manufacturer	Staclean Model #216-8*-AS; Serial # J-005	
Manufacturer's Guarantee (see Note 2)	99% efficiency	
Stack height (feet from ground level)	111.9 ft	
Stack inside diameter (feet)	1.78 ft equivalent diameter (19" x 19" square)	
Temperature (°F) at design capacity	125°F	
Stack exit velocity (feet per second)	82.78 ft/sec	
Gas volume flow rate: actual cubic feet per minute	12,360 acfm	
Gas volume flow rate: dry standard cubic feet per minute	10,236 dscfm	
Unusual stack charac- teristics (e.g., raincap, horizontal discharge)	horizontal	

-Complete for emissions exhausting through a silo stack, chimney or vent during silo unloading process:
(baghouse, wet scrubber, cyclone, no control, etc.)

	Control #1	Control #2
Type of Control: (See Note 1)	DC-618 Baghouse	
Pollutant(s) Controlled	PM/PM₁₀	
Manufacturer	Staclean Model #216-8*-AS; Serial # J-005	
Manufacturer's Guarantee (see Note 2)	99% efficiency	
Stack height (feet from ground level)	111.9 ft	
Stack inside diameter (feet)	1.78 ft equivalent diameter (19" x 19" square)	
Temperature (°F) at design capacity	125°F	
Stack exit velocity (feet per second)	82.78 ft/sec	
Gas volume flow rate: actual cubic feet per minute	12,360 acfm	
Gas volume flow rate: dry standard cubic feet per minute	10,236 dscfm	
Unusual stack charac- teristics (e.g., raincap, horizontal discharge)		

Note 1: Specify "uncontrolled" if no pollution control device is installed.

Note 2: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 4 - Pollution Control Equipment (continued)

-Complete for emissions not exhausting through a stack during silo unloading process: (water sprays, fogging water sprays, pneumatic fogging system, high moisture ore, no control, etc.)

	Control #1	Control #2
Type of Control: (Specify "uncontrolled" if no pollution control device is installed)	N/A	
Pollutant(s) Controlled	N/A	
Manufacturer	N/A	
Manufacturer's Guarantee (see Note 1)	N/A	

Note 1: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 5 - Identify and Describe Compliance Monitoring Devices or Activities (attach additional pages if necessary)

- 1. Monitor and record the throughput rate for the system consisting of S2.086 – S2.093 on a daily basis.**
- 2. Monitor and record the hours of operation for the system consisting of S2.086 – S2.093 on a daily basis.**
- 3. Monitor and record the throughput rate for the system consisting of S2.086 – S2.093 on a cumulative monthly basis, for each 12-month rolling period.**
- 4. Conduct a weekly observation of the Baghouse (DC 618) and verify that the Baghouse (DC 618) is operating normally; record the time of observation and indicate the status of the Baghouse (DC 618). Record and verify that any maintenance work on the Baghouse (DC 618) is done in accordance with the O&M Plan.**
- 5. Conduct and record a weekly visible emission inspection of the Baghouse (DC 618); record the time of the survey and indicate whether any visible emission was observed. If any visible emissions are observed, conduct and record a Method 9 visible emissions test within 24 hours and perform any necessary corrective actions. The Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, Method 9.**
- 6. The required monitoring established above, will be maintained in a contemporaneous log containing at a minimum, the following recordkeeping:**
 - a. The calendar date of any required monitoring.**
 - b. The total daily throughput rate for the system consisting of Baghouse (DC-618) in tons, for the corresponding date.**
 - c. The total daily hours of operation for the corresponding date.**
 - d. The corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate will be determined from the daily throughput rate and the total daily hours of operation recorded in (b) and (c) above.**
 - e. The cumulative monthly throughput rate in tons, for each 12-month rolling period.**
 - f. The results and verification of the opacity observations required in 5 above.**

Section 6 - Identify and Describe Work Practice Standards, Etc. (attach additional pages if necessary)

At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 7 - Requested Emission Limits - Silo Loading

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)	2.12	9.28	See Table 1
Particulates as PM ₁₀	2.12	9.28	See Table 1
Particulates as PM _{2.5}	0.75	3.28	See Table 1b
Sulfur Dioxide			
Carbon Monoxide			
Oxides of Nitrogen			
Volatile Organic Compounds			
Lead			
Hydrogen Sulfide			
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

**STORAGE SILO
APPLICATION FORM
CONTINUED**

Section 7 (continued) - Requested Emission Limits - Silo Unloading

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)			
Particulates as PM ₁₀	N/A	N/A	See Section 7 above (Silo Loading)
Sulfur Dioxide			
Carbon Monoxide			
Oxides of Nitrogen			
Volatile Organic Compounds			
Lead			
Hydrogen Sulfide			
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

**INDUSTRIAL PROCESS
APPLICATION FORM
CLASS I OPERATING PERMIT TO CONSTRUCT**

Check here if this is an
alternative operating scenario

Section 1 - Equipment Description

- a. Type of equipment System 25(b) - Rail Unloading/Transfer
(S2.104-Rail Transfer 634-8 to South Storage Bin 625, S2.105-Silo #8 Transfer to South Storage Bin 625)
- b. Standard Industrial Classification (SIC) Code 3241
- c. Manufacturer of equipment N/A
- d. Model number N/A Serial number N/A *Equip. number S2.104, S2.105 (625, 634-8)
- e. Date equipment manufactured: 1968
- f. Please check one: Temporary (At the same location for less than 12 months)
 Stationary (At the same location for more than 12 months)
- g. For crushers: size output setting, check one: Primary ($\geq 4''$)
 Secondary ($< 4''$ but $\geq 1''$)
 Tertiary ($< 1''$)
 N/A
- h. Please check if portable: Portable (transportable or movable within the confines of the stationary source)
- i. UTM Coordinates 4,387,821.0 m N; 305,740.0 m E; Zone 11
(Please specify NAD 27 or NAD 83)
- j. Basic equipment dimensions (feet): L _____ W _____ H _____

*The equipment number is the facility's own numbering system for this piece of equipment.

Section 2 - Design Rate/Operating Parameters

- a. Maximum design capacity (tons per hour) 100 tph
- b. Requested operating rate (tons per hour)* _____
- c. Requested operating time: (time of day)* 12:00 AM to 12:00 AM
Hours per day 24 Days per year 365
- d. Batch load or charge weight (tons) (if applicable) N/A
- e. Total hours required to process batch or charge (if applicable) N/A
- f. Maximum operating rate (tons per year) 876,000 tpy
- g. Requested operating rate (tons per year)* _____
- f. Type of material processed Portland cement, fly ash, pozzolan
- g. Minimum moisture content _____

*Note: Please complete if other than the maximum design capacity (tons per hour and tons per year) and/or the maximum hours of operation (24 hours per day, 8760 hours per year) are being requested. The permit will be limited to these values.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 3 - Fuel Usage

(This section only applies to fuel consumed/combusted within the process unit. Fuels consumed/combusted in combustion units are to be listed on the Combustion Equipment Application Form.)

Type of Fuel	Amount Used Per Hour	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)
Oil- Specify Type(s)					
	gallons				
	gallons				
Gasoline	gallons				
Propane	cubic feet				
Natural Gas	cubic feet				
*Waste Oil	gallons				
Other	NO FUEL USED				

Type of Fuel	Amount Used Per Hour (tons)	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)	Percent moisture	Percent volatile matter	Percent fixed carbon
Coal - Specify Type(s)								

If more than one type of fuel is combusted, under this operating scenario please specify primary fuel and percentage on a maximum hourly and annual basis (if fuel blending is the primary fuel, identify percentages of each fuel blended). Attach additional information to this form if necessary.

*Firing of waste oil will require multi metals test to insure fuel is non-hazardous.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 4 - Pollution Control Equipment/Exhaust Stack Parameters (this section must be completed)

-Complete for emissions exhausting through a stack, chimney or vent: (baghouse, wet scrubber, cyclone, low NO_x burner, no control, etc.)

	Control #1	Control #2
Type of Control (See Note 1)	DC-611 Baghouse	
Pollutant(s) Controlled	PM/PM₁₀	
Manufacturer	Mikropul (1995)	
Manufacturer's Guarantee (see Note 2)	99% efficiency	
Stack height (feet from ground level)	60.0 ft	
Stack inside diameter (feet)	0.94 ft	
Temperature (°F) at design capacity	Ambient	
Stack exit velocity (feet per second)	48.03	
Gas volume flow rate: Actual cubic feet per minute	2,000	
Gas volume flow rate: Dry standard cubic feet per minute	1,764	
Unusual stack characteristics (e.g. raincap, horizontal discharge)		

-Complete for emissions not exhausting through a stack, chimney or vent: (water sprays, fogging water sprays, pneumatic fogging system, high moisture ore, no control, etc.)

	Control #1	Control #2
Type of Control (See Note 1)		
Pollutant(s) Controlled		
Manufacturer		
Manufacturer's Guarantee (see Note 1)		

Note: Indicate the specific point(s) of emission control application for this emission unit. This must be provided as part of the process flow diagram as required in section 7 of the General Information section of the application form.

Note 1: Specify "uncontrolled" if no pollution control device is installed.

Note 2: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology

- Control Efficiency Ratings provided in Attachment 4.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 5 - Identify and Describe Compliance Monitoring Devices or Activities (attach additional pages if necessary)

- 1. Monitor and record the throughput rate for the system consisting of S2.104 – S2.105 on a daily basis.**
- 2. Monitor and record the hours of operation for the system consisting of S2.104 – S2.105 on a daily basis.**
- 3. Monitor and record the throughput rate for the system consisting of S2.104 – S2.105 on a cumulative monthly basis, for each 12-month rolling period.**
- 4. Conduct a weekly observation of the Baghouse (DC 611) and verify that the Baghouse (DC 611) is operating normally; record the time of observation and indicate the status of the Baghouse (DC 611). Record and verify that any maintenance work on the Baghouse (DC 611) is done in accordance with the O&M Plan.**
- 5. Conduct and record a weekly visible emission inspection of the Baghouse (DC 611); record the time of the survey and indicate whether any visible emission was observed. If any visible emissions are observed, conduct and record a Method 9 visible emissions test within 24 hours and perform any necessary corrective actions. The Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, Method 9.**
- 6. The required monitoring established above, will be maintained in a contemporaneous log containing at a minimum, the following recordkeeping:**
 - a. The calendar date of any required monitoring.**
 - b. The total daily throughput rate for the system consisting of Baghouse (DC-611) in tons, for the corresponding date.**
 - c. The total daily hours of operation for the corresponding date.**
 - d. The corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate will be determined from the daily throughput rate and the total daily hours of operation recorded in (b) and (c) above.**
 - e. The cumulative monthly throughput rate in tons, for each 12-month rolling period.**
 - f. The results and verification of the opacity observations required in 5 above.**

Section 6 - Identify and Describe Work Practice Standards, Etc. (attach additional pages if necessary)

At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 7 - Requested Emission Limits

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)	0.41	1.80	See Table 1
Particulates as PM ₁₀	0.41	1.80	See Table 1
Particulates as PM _{2.5}	0.15	0.63	See Table 1b
Sulfur Dioxide			
Carbon Monoxide			
Oxides of Nitrogen			
Volatile Organic Compounds			
Lead			
Hydrogen Sulfide			
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

**INDUSTRIAL PROCESS
APPLICATION FORM
CLASS I OPERATING PERMIT TO CONSTRUCT**

Check here if this is an
alternative operating scenario

Section 1 - Equipment Description

a.	Type of equipment <u>System 26 - Fly Ash Bulk Loading</u> <u>(S2.106-South Storage Bin 625 transfer to Air Slide 609-4 and to Loading Spout 610)</u>
b.	Standard Industrial Classification (SIC) Code <u>3241</u>
c.	Manufacturer of equipment <u>N/A</u>
d.	Model number <u>N/A</u> Serial number <u>N/A</u> *Equip. number <u>S2.106 (625, 609-4, 610)</u>
e.	Date equipment manufactured: <u>1968</u>
f.	Please check one: <input type="checkbox"/> Temporary (At the same location for less than 12 months) <input checked="" type="checkbox"/> Stationary (At the same location for more than 12 months)
g.	For crushers: size output setting, check one: <input type="checkbox"/> Primary ($\geq 4"$) N/A <input type="checkbox"/> Secondary ($< 4"$ but $\geq 1"$) <input type="checkbox"/> Tertiary ($< 1"$)
h.	Please check if portable: <input type="checkbox"/> Portable (transportable or movable within the confines of the stationary source)
i.	UTM Coordinates <u>4,387,812.0 m N; 305,761.0 m E; Zone 11</u> (Please specify NAD 27 <input checked="" type="checkbox"/> or NAD 83 <input type="checkbox"/>)
j.	Basic equipment dimensions (feet): L _____ W _____ H _____

*The equipment number is the facility's own numbering system for this piece of equipment.

Section 2 - Design Rate/Operating Parameters

a.	Maximum design capacity (tons per hour) <u>100 tph</u>
b.	Requested operating rate (tons per hour)* _____
c.	Requested operating time: (time of day)* <u>12:00 AM</u> to <u>12:00 AM</u> Hours per day <u>24</u> Days per year <u>365</u>
d.	Batch load or charge weight (tons) (if applicable) <u>N/A</u>
e.	Total hours required to process batch or charge (if applicable) <u>N/A</u>
f.	Maximum operating rate (tons per year) <u>876,000 tpy</u>
g.	Requested operating rate (tons per year)* _____
f.	Type of material processed <u>Portland cement, fly ash, pozzolan</u>
g.	Minimum moisture content _____

*Note: Please complete if other than the maximum design capacity (tons per hour and tons per year) and/or the maximum hours of operation (24 hours per day, 8760 hours per year) are being requested. The permit will be limited to these values.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 3 - Fuel Usage

(This section only applies to fuel consumed/combusted within the process unit. Fuels consumed/combusted in combustion units are to be listed on the Combustion Equipment Application Form.)

Type of Fuel	Amount Used Per Hour	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)
Oil- Specify Type(s)					
	gallons				
	gallons				
Gasoline	gallons				
Propane	cubic feet				
Natural Gas	cubic feet				
*Waste Oil	gallons				
Other	NO FUEL USED				

Type of Fuel	Amount Used Per Hour (tons)	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)	Percent moisture	Percent volatile matter	Percent fixed carbon
Coal - Specify Type(s)								

If more than one type of fuel is combusted, under this operating scenario please specify primary fuel and percentage on a maximum hourly and annual basis (if fuel blending is the primary fuel, identify percentages of each fuel blended). Attach additional information to this form if necessary.

*Firing of waste oil will require multi metals test to insure fuel is non-hazardous.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 4 - Pollution Control Equipment/Exhaust Stack Parameters (this section must be completed)

-Complete for emissions exhausting through a stack, chimney or vent: (baghouse, wet scrubber, cyclone, low NO_x burner, no control, etc.)

	Control #1	Control #2
Type of Control (See Note 1)	DC-612 Baghouse	
Pollutant(s) Controlled	PM/PM₁₀	
Manufacturer	Mikropul (1995)	
Manufacturer's Guarantee (see Note 2)	99% efficiency	
Stack height (feet from ground level)	50.0 ft	
Stack inside diameter (feet)	0.94 ft	
Temperature (°F) at design capacity	Ambient	
Stack exit velocity (feet per second)	72.05	
Gas volume flow rate: Actual cubic feet per minute	3,000	
Gas volume flow rate: Dry standard cubic feet per minute	2,645	
Unusual stack charac- teristics (e.g. raincap, horizontal discharge)		

-Complete for emissions not exhausting through a stack, chimney or vent: (water sprays, fogging water sprays, pneumatic fogging system, high moisture ore, no control, etc.)

	Control #1	Control #2
Type of Control (See Note 1)		
Pollutant(s) Controlled		
Manufacturer		
Manufacturer's Guarantee (see Note 1)		

Note: Indicate the specific point(s) of emission control application for this emission unit. This must be provided as part of the process flow diagram as required in section 7 of the General Information section of the application form.

Note 1: Specify "uncontrolled" if no pollution control device is installed.

Note 2: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology

- Control Efficiency Ratings provided in Attachment 4.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 5 - Identify and Describe Compliance Monitoring Devices or Activities

- 1. Monitor and record the throughput rate for S2.106 on a daily basis.**
- 2. Monitor and record the hours of operation for S2.106 on a daily basis.**
- 3. Monitor and record the throughput rate for S2.106 on a cumulative monthly basis, for each 12-month rolling period.**
- 4. Conduct a weekly observation of the Baghouse (DC 612) and verify that the Baghouse (DC 612) is operating normally; record the time of observation and indicate the status of the Baghouse (DC 612). Record and verify that any maintenance work on the Baghouse (DC 612) is done in accordance with the O&M Plan.**
- 5. Conduct and record a visible emissions reading on each exit of the load-out building (including but not limited to doors, windows, vents, chimney's, etc.) on a weekly basis. Visible emissions readings will use the procedures contained in 40 CFR Part 60, Appendix A, Method 9. The visible emissions reading must be conducted by a certified visible emissions reader for a period of 6 minutes and must be made while these emission units are operating and have the potential to create visible emissions. The Method 9 visible emissions reading requirement can be waived for each exit of the building enclosure (including but not limited to doors, windows, vents, chimney's, etc.) providing the following conditions are met.**
 - (a) A survey of each exit of the building enclosure (including but not limited to doors, windows, vents, chimney's, etc.) must be made in accordance with the procedures contained in 40 CFR Part 60, Appendix A, Method 22. The survey will be conducted for a minimum of 6 minutes.**
 - (b) If the survey detects visible emissions, excluding condensed water vapor, for more than 18 seconds of the survey time, a Method 9 visible emission reading must be conducted by a certified visible emissions reader within 1 hour of the initial survey.**
 - (c) The results of the survey including date and time, and any corrective action taken (including the result of any further Method 9 visible emission reading) will be recorded in a contemporaneous log.**
- 6. The required monitoring established above, will be maintained in a contemporaneous log containing at a minimum, the following recordkeeping:**
 - a. The calendar date of any required monitoring.**
 - b. The total daily throughput rate for the system consisting of Baghouse (DC-612) in tons, for the corresponding date.**
 - c. The total daily hours of operation for the corresponding date.**
 - d. The corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate will be determined from the daily throughput rate and the total daily hours of operation recorded in (b) and (c) above.**
 - e. The cumulative monthly throughput rate in tons, for each 12-month rolling period.**
 - f. The results and verification of the opacity observations required in 5 above.**

Section 6 - Identify and Describe Work Practice Standards, Etc. (attach additional pages if necessary)

At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 7 - Requested Emission Limits

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)	0.308	1.35	See Table 1
Particulates as PM ₁₀	0.308	1.35	See Table 1
Particulates as PM _{2.5}	0.109	0.48	See Table 1b
Sulfur Dioxide			
Carbon Monoxide			
Oxides of Nitrogen			
Volatile Organic Compounds			
Lead			
Hydrogen Sulfide			
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.