FORM A1

FACILITY (General Information)

REVISED 11/01/02 — **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** — **A1**

NOTE- APPLICATION WILL NOT BE PROCESSED WITHOUT THE FOLLOWING:

☑ Local Zoning Consistency Determination (if required) ☑ Facility Reduction & Recycling Survey Form (Form A4) ☑ Application Fee
☑ Responsible Official/Authorized Contact Signature ☑ Appropriate Number of Copies of Application ☑ P.E. Seal (if required)

GENERAL INFORMATION

Legal Corporate/Owner Name:	Carolinas Cement Company LLC
Site Name:	*Carolinas Cement Company LLC*
Site Address (911 Address) Line 1:	6411 Ideal Cement Road
Site Address Line 2:	PO Box 37
City: Castle Hayne	State: North Carolina
Zip Code: 28429	County: New Hanover

CONTACT INFORMATION

Permit/Technical Contact:	***Facility/Inspection Contact:***
Name/Title: James S. Willis / Corporate Environmental Manager	Name/Title: James S. Willis / Corporate Environmental Manager
Mailing Address Line 1: 6071 Catawba Road	Mailing Address Line 1: 6071 Catawba Road
Mailing Address Line 2:	Mailing Address Line 2:
City: Troutville State: Virginia Zip Code: 24175	City: Troutville State: Virginia Zip Code: 24175
Phone No. (area code) 540-966-6534 Fax No. (area code) 540-966-6812	Phone No. (area code) 540-966-6534 Fax No. (area code) 540-966-6812
Email Address: jwillis@titanamerica.com	Email Address: jwillis@titanamerica.com
Responsible Official/Authorized Contact:	***Invoice Contact:***
Name/Title: Russell A. Fink, Vice President/General Counsel	Name/Title: James S. Willis / Corporate Environmental Manager
Mailing Address Line 1: 1151 Azalea Garden Road	Mailing Address Line 1: 6071 Catawba Road
Mailing Address Line 2:	Mailing Address Line 2:
City: Norfolk State: Virginia Zip Code: 23502	City: Troutville State: Virginia Zip Code: 24175
Phone No. (area code) 757-858-6523 Fax No. (area code) 757-288-1339	Phone No. (area code) 540-966-6534 Fax No. (area code) 540-966-6812
Email Address: Rfink@titanamerica.com	Email Address: jwillis@titanamerica.com

APPLICATION IS BEING MADE FOR

☐ New Non-permitted Facility/Greenfield ☑ Modification of Facility (permitted) ☐ Renewal with Modification
☐ Renewal (TV Only)

FACILITY CLASSIFICATION AFTER APPLICATION (Check Only One)

☐ General ☐ Small ☐ Prohibitory Small ☐ Synthetic Minor ☑ Title V

FACILITY (Plant Site) INFORMATION

Describe nature of (plant site) operation(s): **Facility ID No**. : 08/65/00296

Manufacturing of Portland cement

Primary SIC/NAICS Code: 3241 / 327310	Current/Previous Air Permit No. 07300R07 Expiration Date 1/1/2012
Facility Coordinates: Latitude: 34-22-38 N	Longitude: 77-50-37 W

Does this application contain confidential data? ☐ YES ☑ NO

PERSON OR FIRM THAT PREPARED APPLICATION

Person Name: John P. Carroll, Jr.	Firm Name: Environmental Quality Management, Inc.
Mailing Address Line 1: 3325 Durham-Chapel Hill Boulevard, Suite 250	Mailing Address Line 2:
City: Durham State: North Carolina	Zip Code: 27707 County: Durham
Phone No. (area code) 919-489-5299 Fax No. (area code) 919-489-5552	Email Address: jcarroll@eqm-rtp.com

SIGNATURE OF RESPONSIBLE OFFICIAL/AUTHORIZED CONTACT

Name (typed): Russell A. Fink	Title: Vice President, General Counsel, and Secretary
X Signature(Blue Ink):	Date:

Attach Additional Sheets As Necessary

FORMs A2, A3

EMISSION SOURCE LISTING FOR THIS APPLICATION - A2

112r APPLICABILITY INFORMATION - A3

REVISED 04/10/07 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **A2**

EMISSION SOURCE LISTING: New, Modified, Previously Unpermitted, Replaced, Deleted

EMISSION SOURCE ID NO.	EMISSION SOURCE DESCRIPTION	CONTROL DEVICE ID NO.	CONTROL DEVICE DESCRIPTION
Equipment To Be ADDED By This Application (New, Previously Unpermitted, or Replacement)			
FQ	Quarry crushing and handling	NA	NA
RMHS	Raw material unloading, handling, and storage	NA	NA
RMKF	Raw mill and kiln feed	CD5-13	Fabric filters
COAL	Coal/coke handling and storage	CD1-4, 14-18	Fabric filters
KS	Kiln system	CD44N	SNCR
		CD44A,B,C	Fabric filters
		CD44D	ACI/Fabric filter
		CD44S	Wet Scrubber
CHS	Clinker handling and storage	CD19-21	Fabric filters
FM	Finish mills	CD22-31, 45-47	Fabric filters
CHSL	Cement handling, storage, and loadout	CD32-34, 40-43	Fabric filters
GEN	Emergency generator	NA	NA
SP	Storage piles	NA	NA
MINE	Mining operations	NA	NA
PLTRD	Plant roads	NA	NA
QURD	Quarry roads	NA	NA
Existing Permitted Equipment To Be MODIFIED By This Application			
CHSL (ES-R33)	Cement screw conveyor/truck loadout	CD-P30	Fabric filter
Equipment To Be DELETED By This Application			

112(r) APPLICABILITY INFORMATION **A 3**

Is your facility subject to 40 CFR Part 68 "Prevention of Accidental Releases" - Section 112(r) of the Federal Clean Air Act? No

If No, please specify in detail how your facility avoided applicability: Aqueous ammonia less than 20%

If your facility is Subject to 112(r), please complete the following:

A. Have you already submitted a Risk Management Plan (RMP) to EPA Pursuant to 40 CFR Part 68.10 or Part 68.150?

Yes G No G Specify required RMP submittal date: _____ If submitted, RMP submittal date: _____

B. Are you using administrative controls to subject your facility to a lesser 112(r) program standard?

Yes G No G If yes, please specify: _____

Attach Additional Sheets As Necessary

FORM A4

SURVEY OF AIR EMISSIONS AND FACILITY - WIDE REDUCTION & RECYCLING ACTIVITIES

DATE: 01/03/2010

Does facility have an environmental mangement system in place? ( ) YES (X) NO If so, is facility ISO 14000 Certified? ( ) YES (X) NO

Facility Name:	**Carolinas Cement Company LLC**			**Permit Number:**	**07300R07**
Facility ID:	**08/65/00296**	**County:**	**New Hanover**	**Environmental Contact:**	**James S. Willis / Corporate Environmental Manager**
Mailing Address Line 1:	**6071 Catawba Road**			**Phone No.** **540-966-6534**	**Fax No.** **540-966-6812**
Mailing Address Line 2:				**Zip Code:** **24175**	**County:** **New Hanover**
City:	**Troutville**	**State:**	**Virginia**	**Email Address:**	**jwillis@titanamerica.com**

AIR EMISSIONS SOURCE REDUCTIONS

Any Air Emissions Source Reductions in the past year? ( ) YES (X) NO

Source Description and ID	Air Pollutant	Enter Code for Emission Reduction Option (See Codes)	Date Reduction Option Implemented (mo/yr)	Quantity Emitted from prior annual report to DAQ (lb/yr)	Quantity Emitted from current annual report to DAQ (lb/yr)	Has reduction activity been discontinued? If so, when was it discontinued? (mo/yr)	Addition detail about source

Comments:

FACILITY - WIDE REDUCTIONS & RECYCLING ACTIVITIES

Any Reductions or Recycling Activities in the past year? ( ) YES (X) NO

Source Description or Activity	Pollutant or Recycled or Reduced Material	Enter Code for Emission Reduction Option (See Codes)	Date Reduction Option Implemented (mo/yr)	Quantity Emitted from prior annual report	Quantity Emitted from current annual report	Has reduction activity been discontinued? If so, when was it discontinued? (mo/yr)	Addition detail about source

Comments: **None**

The requested information above shall be used for fulfilling the requirements of North Carolina General Statute 143-215.108(g). The permit holder shall submit to the Department a written description of current and projected plans to reduce the emissions of air pollutants by source reduction or recycling. The written description shall accompany any application for a new permit, modification of an existing permit and for each annual air quality permit fee payment. Source reduction is defined as reducing the amount of any hazardous substance, pollutant, or contaminant entering any waste stream or otherwise released into the environment (including fugitive emissions) prior to recycling, treatment, or disposal. If no activity has taken place since the previous report, simply indicate so by checking the no box in that section. Once completed, this form should be submitted along with your fee payment. Examples are listed on the first line of each section of the form for your benefit.

N.C. Division of Pollution Prevention and Environmental Assistance

POLLUTION PREVENTION PAYS

FORM B

SPECIFIC EMISSIONS SOURCE INFORMATION (REQUIRED FOR ALL SOURCES)

REVISED 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **B**

EMISSION SOURCE DESCRIPTION:	EMISSION SOURCE ID NO: FQ
Quarry crushing and handling	CONTROL DEVICE ID NO(S): NA
OPERATING SCENARIO 1 OF 1	EMISSION POINT (STACK) ID NO(S): NA

DESCRIBE IN DETAILTHE EMISSION SOURCE PROCESS (ATTACH FLOW DIAGRAM):
Primary crushers (2) for marl/limestone and overburden/spoils, secondary crusher, and conveyor transfer points.

TYPE OF EMISSION SOURCE (CHECK AND COMPLETE APPROPRIATE FORM B1-B9 ON THE FOLLOWING PAGES):

☐ Coal,wood,oil, gas, other burner (Form B1) ☐ Woodworking (Form B4) ☐ Manufact. of chemicals/coatings/inks (Form B7)
☐ Int.combustion engine/generator (Form B2) ☐ Coating/finishing/printing (Forr ☐ Incineration (Form B8)
☐ Liquid storage tanks (Form B3) ☐ Storage silos/bins (Form B6) X Other (Form B9)

START CONSTRUCTION DATE: Mar-11	OPERATION DATE: Nov-13	DATE MANUFACTURED: TBD
MANUFACTURER / MODEL NO. TBD	EXPECTED OP. SCHEDULE: 24 HR/DAY 7 DAY/WK 52 WK/YR	
IS THIS SOURCE SUBJECT TO? NSPS (SUBPART?): OOO	NESHAP (SUBPART?):_____	MACT (SUBPART?):_____
PERCENTAGE ANNUAL THROUGHPUT (%): DEC-FEB 25	MAR-MAY 25	JUN-AUG 25 SEP-NOV 25
EXPECTED ANNUAL HOURS OF OPERATIC 8760	VISIBLE STACK EMISSIONS UNDER NORMAL OPERATION: NA	% OPACITY

CRITERIA AIR POLLUTANT EMISSIONS INFORMATION FOR THIS SOURCE

	SOURCE OI	EXPECTED ACTUAL		POTENTIAL EMSSIONS			
	EMISSION	AFTER CONTROLS / LIMITS)		BEFORE CONTROLS / LIMITS		(AFTER CONTROLS / LIMITS)	
AIR POLLUTANT EMITTED	FACTOR	lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr
PARTICULATE MATTER (PM)	Attached	1.60	6.99	NA	NA	1.60	6.99
PARTICULATE MATTER<10 MICRONS (PM_{10})	Attached	0.73	3.20	NA	NA	0.73	3.20
PARTICULATE MATTER<2.5 MICRONS ($PM_{2.5}$)	Attached	0.13	0.55	NA	NA	0.13	0.55
SULFUR DIOXIDE (SO2)							
NITROGEN OXIDES (NOx)							
CARBON MONOXIDE (CO)							
VOLATILE ORGANIC COMPOUNDS (VOC)							
LEAD	Attached	4.79E-05	2.10E-04	NA	NA	4.79E-05	2.10E-04
OTHER							

HAZARDOUS AIR POLLUTANT EMISSIONS INFORMATION FOR THIS SOURCE

	SOURCE OI	EXPECTED ACTUAL		POTENTIAL EMSSIONS			
	EMISSION	AFTER CONTROLS / LIMITS)		BEFORE CONTROLS / LIMITS		(AFTER CONTROLS / LIMITS)	
HAZARDOUS AIR POLLUTANT AND CAS NO.	FACTOR	lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr
Arsenic	Attached	3.19E-06	1.40E-05	NA	NA	3.19E-06	1.40E-05
Beryllium	Attached	3.19E-06	1.40E-05	NA	NA	3.19E-06	1.40E-05
Cadmium	Attached	3.04E-06	1.33E-05	NA	NA	3.04E-06	1.33E-05
Chromium (Total)	Attached	2.98E-05	1.31E-04	NA	NA	2.98E-05	1.31E-04
Manganese	Attached	3.02E-04	1.32E-03	NA	NA	3.02E-04	1.32E-03
Mercury	Attached	1.76E-08	7.69E-08	NA	NA	1.76E-08	7.69E-08

TOXIC AIR POLLUTANT EMISSIONS INFORMATION FOR THIS SOURCE

INDICATE EXPECTED ACTUAL EMISSIONS AFTER CONTROLS / LIMITATIONS

TOXIC AIR POLLUTANT AND CAS NO.	EF SOURCE	lb/hr	lb/day	lb/yr
Arsenic	Attached	3.19E-06	7.66E-05	2.80E-02
Beryllium	Attached	3.19E-06	7.66E-05	2.80E-02
Cadmium	Attached	3.04E-06	7.29E-05	2.66E-02
Chromium (VI)	Attached	1.60E-07	3.83E-06	1.40E-03
Manganese	Attached	3.02E-04	7.25E-03	2.65E+00
Mercury	Attached	1.76E-08	4.21E-07	1.54E-04

Attachments: (1) emissions calculations and supporting documentation; (2) indicate all requested state and federal enforceable permit limits (e.g. hours of operation, emission rates) and describe how these are monitored and with what frequency; and (3) describe any monitoring devices, gauges, or test ports for this source.

PLETE THIS FORM AND COMPLETE AND ATTACH APPROPRIATE B1 THROUGH B9 FORM FOR EACH SO

Attach Additional Sheets As Necessary

FORM B

SPECIFIC EMISSIONS SOURCE INFORMATION (REQUIRED FOR ALL SOURCES)

REVISED 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **B**

EMISSION SOURCE DESCRIPTION:	EMISSION SOURCE ID NO: RMHS
Raw material unloading, handling, and storage	CONTROL DEVICE ID NO(S): NA
OPERATING SCENARIO 1 OF 1	EMISSION POINT (STACK) ID NO(S): NA

DESCRIBE IN DETAILTHE EMISSION SOURCE PROCESS (ATTACH FLOW DIAGRAM):
Unloading, handling, and storage of quarried raw materials, additives, gypsum, and solid fuels (coal, coke) (fugitve transfer points)

TYPE OF EMISSION SOURCE (CHECK AND COMPLETE APPROPRIATE FORM B1-B9 ON THE FOLLOWING PAGES):

☐ Coal,wood,oil, gas, other burner (Form B1) ☐ Woodworking (Form B4) ☐ Manufact. of chemicals/coatings/inks (Form B7)
☐ Int.combustion engine/generator (Form B2) ☐ Coating/finishing/printing (Forr ☐ Incineration (Form B8)
☐ Liquid storage tanks (Form B3) ☐ Storage silos/bins (Form B6) X Other (Form B9)

START CONSTRUCTION DATE: Mar-11	OPERATION DATE: Nov-13	DATE MANUFACTURED: TBD
MANUFACTURER / MODEL NO. TBD	EXPECTED OP. SCHEDULE: 24 HR/DAY 7 DAY/WK 52 WK/YR	
IS THIS SOURCE SUBJECT TO? NSPS (SUBPART?): Y, OOO	NESHAP (SUBPART?):_____	MACT (SUBPART?):_____
PERCENTAGE ANNUAL THROUGHPUT (%): DEC-FEB 25	MAR-MAY 25	JUN-AUG 25 SEP-NOV 25
EXPECTED ANNUAL HOURS OF OPERATIC 8760	VISIBLE STACK EMISSIONS UNDER NORMAL OPERATION: NA % OPACITY	

CRITERIA AIR POLLUTANT EMISSIONS INFORMATION FOR THIS SOURCE

	SOURCE OI	EXPECTED ACTUAL		POTENTIAL EMSSIONS			
	EMISSION	AFTER CONTROLS / LIMITS)		BEFORE CONTROLS / LIMITS		(AFTER CONTROLS / LIMITS)	
AIR POLLUTANT EMITTED	FACTOR	lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr
PARTICULATE MATTER (PM)	Attached	1.05	4.62	NA	NA	1.05	4.62
PARTICULATE MATTER<10 MICRONS (PM_{10})	Attached	0.50	2.18	NA	NA	0.50	2.18
PARTICULATE MATTER<2.5 MICRONS ($PM_{2.5}$)	Attached	0.08	0.33	NA	NA	0.08	0.33
SULFUR DIOXIDE (SO2)							
NITROGEN OXIDES (NOx)							
CARBON MONOXIDE (CO)							
VOLATILE ORGANIC COMPOUNDS (VOC)							
LEAD	Attached	4.14E-05	1.81E-04	NA	NA	4.14E-05	1.81E-04
OTHER							

HAZARDOUS AIR POLLUTANT EMISSIONS INFORMATION FOR THIS SOURCE

	SOURCE OI	EXPECTED ACTUAL		POTENTIAL EMSSIONS			
	EMISSION	AFTER CONTROLS / LIMITS)		BEFORE CONTROLS / LIMITS		(AFTER CONTROLS / LIMITS)	
HAZARDOUS AIR POLLUTANT AND CAS NO.	FACTOR	lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr
Arsenic	Attached	5.53E-06	2.42E-05	NA	NA	5.53E-06	2.42E-05
Beryllium	Attached	1.75E-06	7.67E-06	NA	NA	1.75E-06	7.67E-06
Cadmium	Attached	2.20E-06	9.63E-06	NA	NA	2.20E-06	9.63E-06
Chromium (Total)	Attached	6.22E-05	2.72E-04	NA	NA	6.22E-05	2.72E-04
Manganese	Attached	2.34E-04	1.02E-03	NA	NA	2.34E-04	1.02E-03
Mercury	Attached	6.97E-08	3.05E-07	NA	NA	6.97E-08	3.05E-07

TOXIC AIR POLLUTANT EMISSIONS INFORMATION FOR THIS SOURCE

INDICATE EXPECTED ACTUAL EMISSIONS AFTER CONTROLS / LIMITATIONS

TOXIC AIR POLLUTANT AND CAS NO.	EF SOURCE	lb/hr	lb/day	lb/yr
Arsenic	Attached	5.53E-06	1.33E-04	4.84E-02
Beryllium	Attached	1.75E-06	4.20E-05	1.53E-02
Cadmium	Attached	2.20E-06	5.28E-05	1.93E-02
Chromium (VI)	Attached	4.70E-07	1.13E-05	4.11E-03
Manganese	Attached	2.34E-04	5.62E-03	2.05E+00
Mercury	Attached	6.97E-08	1.67E-06	6.10E-04

Attachments: (1) emissions calculations and supporting documentation; (2) indicate all requested state and federal enforceable permit limits (e.g. hours of operation, emission rates) and describe how these are monitored and with what frequency; and (3) describe any monitoring devices, gauges, or test ports for this source.

PLETE THIS FORM AND COMPLETE AND ATTACH APPROPRIATE B1 THROUGH B9 FORM FOR EACH SO

Attach Additional Sheets As Necessary

FORM B

SPECIFIC EMISSIONS SOURCE INFORMATION (REQUIRED FOR ALL SOURCES)

REVISED 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **B**

EMISSION SOURCE DESCRIPTION:	EMISSION SOURCE ID NO: RMKF
Raw mill and kiln feed	CONTROL DEVICE ID NO(S): CD5-CD13
OPERATING SCENARIO 1 OF 1	EMISSION POINT (STACK) ID NO(S): E5 - E13

DESCRIBE IN DETAILTHE EMISSION SOURCE PROCESS (ATTACH FLOW DIAGRAM):
Raw mill feed storage and handling; kiln feed storage and handling; kiln dust bins

TYPE OF EMISSION SOURCE (CHECK AND COMPLETE APPROPRIATE FORM B1-B9 ON THE FOLLOWING PAGES):

☐ Coal,wood,oil, gas, other burner (Form B1) ☐ Woodworking (Form B4) ☐ Manufact. of chemicals/coatings/inks (Form B7)
☐ Int.combustion engine/generator (Form B2) ☐ Coating/finishing/printing (Forr ☐ Incineration (Form B8)
☐ Liquid storage tanks (Form B3) ☐ Storage silos/bins (Form B6) X Other (Form B9)

START CONSTRUCTION DATE: Mar-11	OPERATION DATE: Nov-13	DATE MANUFACTURED: TBD
MANUFACTURER / MODEL NO. TBD	EXPECTED OP. SCHEDULE: 24 HR/DAY 7 DAY/WK 52 WK/YR	
IS THIS SOURCE SUBJECT TO? NSPS (SUBPART?): F	NESHAP (SUBPART?):_____	MACT (SUBPART?): LLL
PERCENTAGE ANNUAL THROUGHPUT (%): DEC-FEB 25	MAR-MAY 25	JUN-AUG 25 SEP-NOV 25
EXPECTED ANNUAL HOURS OF OPERATIC 8760	VISIBLE STACK EMISSIONS UNDER NORMAL OPERATION: 10% OPACITY	

CRITERIA AIR POLLUTANT EMISSIONS INFORMATION FOR THIS SOURCE

	SOURCE OI	EXPECTED ACTUAL		POTENTIAL EMSSIONS			
	EMISSION	AFTER CONTROLS / LIMITS)		BEFORE CONTROLS / LIMITS		(AFTER CONTROLS / LIMITS)	
AIR POLLUTANT EMITTED	FACTOR	lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr
PARTICULATE MATTER (PM)	Attached	4.77	20.90	NA	NA	4.77	20.90
PARTICULATE MATTER<10 MICRONS (PM_{10})	Attached	4.01	17.56	NA	NA	4.01	17.56
PARTICULATE MATTER<2.5 MICRONS ($PM_{2.5}$)	Attached	2.15	9.41	NA	NA	2.15	9.41
SULFUR DIOXIDE (SO2)							
NITROGEN OXIDES (NOx)							
CARBON MONOXIDE (CO)							
VOLATILE ORGANIC COMPOUNDS (VOC)							
LEAD	Attached	4.02E-04	1.76E-03	NA	NA	4.02E-04	1.76E-03
OTHER							

HAZARDOUS AIR POLLUTANT EMISSIONS INFORMATION FOR THIS SOURCE

	SOURCE OI	EXPECTED ACTUAL		POTENTIAL EMSSIONS			
	EMISSION	AFTER CONTROLS / LIMITS)		BEFORE CONTROLS / LIMITS		(AFTER CONTROLS / LIMITS)	
HAZARDOUS AIR POLLUTANT AND CAS NO.	FACTOR	lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr
Arsenic	Attached	2.42E-05	1.06E-04	NA	NA	2.42E-05	1.06E-04
Beryllium	Attached	8.98E-06	3.93E-05	NA	NA	8.98E-06	3.93E-05
Cadmium	Attached	1.41E-05	6.16E-05	NA	NA	1.41E-05	6.16E-05
Chromium (Total)	Attached	2.31E-04	1.01E-03	NA	NA	2.31E-04	1.01E-03
Manganese	Attached	1.09E-03	4.77E-03	NA	NA	1.09E-03	4.77E-03
Mercury	Attached	3.14E-07	1.37E-06	NA	NA	3.14E-07	1.37E-06

TOXIC AIR POLLUTANT EMISSIONS INFORMATION FOR THIS SOURCE

INDICATE EXPECTED ACTUAL EMISSIONS AFTER CONTROLS / LIMITATIONS

TOXIC AIR POLLUTANT AND CAS NO.	EF SOURCE	lb/hr	lb/day	lb/yr
Arsenic	Attached	2.42E-05	5.82E-04	2.12E-01
Beryllium	Attached	8.98E-06	2.16E-04	7.87E-02
Cadmium	Attached	1.41E-05	3.38E-04	1.23E-01
Chromium (VI)	Attached	1.71E-06	4.11E-05	1.50E-02
Manganese	Attached	1.09E-03	2.62E-02	9.55E+00
Mercury	Attached	3.14E-07	7.53E-06	2.75E-03

Attachments: (1) emissions calculations and supporting documentation; (2) indicate all requested state and federal enforceable permit limits (e.g. hours of operation, emission rates) and describe how these are monitored and with what frequency; and (3) describe any monitoring devices, gauges, or test ports for this source.

PLETE THIS FORM AND COMPLETE AND ATTACH APPROPRIATE B1 THROUGH B9 FORM FOR EACH SO

Attach Additional Sheets As Necessary

FORM B

SPECIFIC EMISSIONS SOURCE INFORMATION (REQUIRED FOR ALL SOURCES)

REVISED 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **B**

EMISSION SOURCE DESCRIPTION:	EMISSION SOURCE ID NO: COAL
Coal/coke handling system and mill	CONTROL DEVICE ID NO(S): CD1-4, CD14-18
OPERATING SCENARIO 1 OF 1	EMISSION POINT (STACK) ID NO(S): E1-E4, E14-E18

DESCRIBE IN DETAILTHE EMISSION SOURCE PROCESS (ATTACH FLOW DIAGRAM):
Coal/coke unloading, conveying, and storage bins

TYPE OF EMISSION SOURCE (CHECK AND COMPLETE APPROPRIATE FORM B1-B9 ON THE FOLLOWING PAGES):

☐ Coal,wood,oil, gas, other burner (Form B1) ☐ Woodworking (Form B4) ☐ Manufact. of chemicals/coatings/inks (Form B7)
☐ Int.combustion engine/generator (Form B2) ☐ Coating/finishing/printing (Forr ☐ Incineration (Form B8)
☐ Liquid storage tanks (Form B3) ☐ Storage silos/bins (Form B6) X Other (Form B9)

START CONSTRUCTION DATE: Mar-11	OPERATION DATE: Nov-13	DATE MANUFACTURED: TBD
MANUFACTURER / MODEL NO. TBD	EXPECTED OP. SCHEDULE: 24 HR/DAY 7 DAY/WK 52 WK/YR	
IS THIS SOURCE SUBJECT TO? NSPS (SUBPART?): Y	NESHAP (SUBPART?):_____	MACT (SUBPART?):_____
PERCENTAGE ANNUAL THROUGHPUT (%): DEC-FEB 25	MAR-MAY 25	JUN-AUG 25 SEP-NOV 25
EXPECTED ANNUAL HOURS OF OPERATIC 8760	VISIBLE STACK EMISSIONS UNDER NORMAL OPERATION: _____OPACITY	

CRITERIA AIR POLLUTANT EMISSIONS INFORMATION FOR THIS SOURCE

	SOURCE OI	EXPECTED ACTUAL		POTENTIAL EMSSIONS			
	EMISSION	AFTER CONTROLS / LIMITS)		BEFORE CONTROLS / LIMITS		(AFTER CONTROLS / LIMITS)	
AIR POLLUTANT EMITTED	FACTOR	lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr
PARTICULATE MATTER (PM)	Attached	2.87	12.58	NA	NA	2.87	12.58
PARTICULATE MATTER<10 MICRONS (PM_{10})	Attached	2.41	10.57	NA	NA	2.41	10.57
PARTICULATE MATTER<2.5 MICRONS ($PM_{2.5}$)	Attached	1.29	5.66	NA	NA	1.29	5.66
SULFUR DIOXIDE (SO2)							
NITROGEN OXIDES (NOx)							
CARBON MONOXIDE (CO)							
VOLATILE ORGANIC COMPOUNDS (VOC)							
LEAD	Attached	2.90E-06	1.27E-05	NA	NA	2.90E-06	1.27E-05
OTHER							

HAZARDOUS AIR POLLUTANT EMISSIONS INFORMATION FOR THIS SOURCE

	SOURCE OI	EXPECTED ACTUAL		POTENTIAL EMSSIONS			
	EMISSION	AFTER CONTROLS / LIMITS)		BEFORE CONTROLS / LIMITS		(AFTER CONTROLS / LIMITS)	
HAZARDOUS AIR POLLUTANT AND CAS NO.	FACTOR	lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr
Arsenic	Attached	5.46E-07	2.39E-06	NA	NA	5.46E-07	2.39E-06
Beryllium	Attached	1.01E-06	4.40E-06	NA	NA	1.01E-06	4.40E-06
Cadmium	Attached	1.21E-06	5.28E-06	NA	NA	1.21E-06	5.28E-06
Chromium (Total)	Attached	1.44E-05	6.29E-05	NA	NA	1.44E-05	6.29E-05
Manganese	Attached	1.67E-06	7.30E-06	NA	NA	1.67E-06	7.30E-06
Mercury	Attached	2.87E-07	1.26E-06	NA	NA	2.87E-07	1.26E-06

TOXIC AIR POLLUTANT EMISSIONS INFORMATION FOR THIS SOURCE

INDICATE EXPECTED ACTUAL EMISSIONS AFTER CONTROLS / LIMITATIONS

TOXIC AIR POLLUTANT AND CAS NO.	EF SOURCE	lb/hr	lb/day	lb/yr
Arsenic	Attached	5.46E-07	1.31E-05	4.78E-03
Beryllium	Attached	1.01E-06	2.41E-05	8.81E-03
Cadmium	Attached	1.21E-06	2.90E-05	1.06E-02
Chromium (VI)	Attached	1.44E-07	3.45E-06	1.26E-03
Manganese	Attached	1.67E-06	4.00E-05	1.46E-02
Mercury	Attached	2.87E-07	6.89E-06	2.52E-03

Attachments: (1) emissions calculations and supporting documentation; (2) indicate all requested state and federal enforceable permit limits (e.g. hours of operation, emission rates) and describe how these are monitored and with what frequency; and (3) describe any monitoring devices, gauges, or test ports for this source.

PLETE THIS FORM AND COMPLETE AND ATTACH APPROPRIATE B1 THROUGH B9 FORM FOR EACH SO

Attach Additional Sheets As Necessary

FORM B

SPECIFIC EMISSIONS SOURCE INFORMATION (REQUIRED FOR ALL SOURCES)

REVISED 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **B**

EMISSION SOURCE DESCRIPTION: Kiln system	EMISSION SOURCE ID NO: KS
	CONTROL DEVICE ID NO(S): CD44A,B,C,N,S
OPERATING SCENARIO All	EMISSION POINT (STACK) ID NO(S): E44

DESCRIBE IN DETAILTHE EMISSION SOURCE PROCESS (ATTACH FLOW DIAGRAM):
Kiln with in-line raw mill, clinker cooler, preheater bypass, and coal mill. The raw mill runs approximately 80% of the time and is off (bypassed) approximately 20% of the time that the kiln is operating.

TYPE OF EMISSION SOURCE (CHECK AND COMPLETE APPROPRIATE FORM B1-B9 ON THE FOLLOWING PAGES):

☐ Coal,wood,oil, gas, other burner (Form B1) ☐ Woodworking (Form B4) ☐ Manufact. of chemicals/coatings/inks (Form B7)
☐ Int.combustion engine/generator (Form B2) ☐ Coating/finishing/printing (For ☐ Incineration (Form B8)
☐ Liquid storage tanks (Form B3) ☐ Storage silos/bins (Form B6) X Other (Form B9)

START CONSTRUCTION DATE	Mar-11	OPERATION DATE: Nov-13	DATE MANUFACTURED: TBD
MANUFACTURER / MODEL NO	TBD	EXPECTED OP. SCHEDULE: 24 HR/DAY 7 DAY/WK 52 WK/YR	
IS THIS SOURCE SUBJECT TO? NSPS (SUBPART?): F		NESHAP (SUBPART?):_____	MACT (SUBPART?): LLL
PERCENTAGE ANNUAL THROUGHPUT (%): DEC-FEB 25		MAR-MAY 25	JUN-AUG 25 SEP-NOV 25
EXPECTED ANNUAL HOURS OF OPERATIC	8760	VISIBLE STACK EMISSIONS UNDER NORMAL OPERATION:	10% OPACITY

CRITERIA AIR POLLUTANT EMISSIONS INFORMATION FOR THIS SOURCE

	SOURCE O	EXPECTED ACTUAL		POTENTIAL EMSSIONS			
	EMISSION	AFTER CONTROLS / LIMITS		BEFORE CONTROLS / LIMITS		(AFTER CONTROLS / LIMITS)	
AIR POLLUTANT EMITTED	FACTOR	lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr
PARTICULATE MATTER (PM)	Attached	23.78	103.51	NA	NA	23.78	103.51
PARTICULATE MATTER<10 MICRONS (PM_{10})	Attached	23.78	103.51	NA	NA	23.78	103.51
PARTICULATE MATTER<2.5 MICRONS ($PM_{2.5}$)	Attached	23.78	103.51	NA	NA	23.78	103.51
SULFUR DIOXIDE (SO2)	Attached	100.00	438.00	NA	NA	100.00	438.00
NITROGEN OXIDES (NOx)	Attached	375.00	1642.50	NA	NA	375.00	1642.50
CARBON MONOXIDE (CO)	Attached	700.00	3066.00	NA	NA	700.00	3066.00
VOLATILE ORGANIC COMPOUNDS (VOC)	Attached	40.00	175.20	NA	NA	40.00	175.20
LEAD	Attached	0.02	0.08	NA	NA	0.02	0.08
OTHER							

HAZARDOUS AIR POLLUTANT EMISSIONS INFORMATION FOR THIS SOURCE

	SOURCE O	EXPECTED ACTUAL		POTENTIAL EMSSIONS			
	EMISSION	AFTER CONTROLS / LIMITS		BEFORE CONTROLS / LIMITS		(AFTER CONTROLS / LIMITS)	
HAZARDOUS AIR POLLUTANT AND CAS NO.	FACTOR	lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr
Arsenic	Attached	3.00E-03	1.31E-02	NA	NA	3.00E-03	1.31E-02
Benzene	Attached	7.75E-01	3.39E+00	NA	NA	7.75E-01	3.39E+00
Beryllium	Attached	1.65E-04	7.23E-04	NA	NA	1.65E-04	7.23E-04
Cadmium	Attached	5.50E-04	2.41E-03	NA	NA	5.50E-04	2.41E-03
Chromium (Total)	Attached	3.50E-02	1.53E-01	NA	NA	3.50E-02	1.53E-01
Formaldehyde	Attached	1.15E-01	5.04E-01	NA	NA	1.15E-01	5.04E-01
Hydrogen Chloride	Attached	2.17E+00	9.50E+00	NA	NA	2.17E+00	9.50E+00
Manganese	Attached	2.15E-01	9.42E-01	NA	NA	2.15E-01	9.42E-01
Mercury	Attached	5.25E-03	2.30E-02	NA	NA	5.25E-03	2.30E-02

TOXIC AIR POLLUTANT EMISSIONS INFORMATION FOR THIS SOURCE

INDICATE EXPECTED ACTUAL EMISSIONS AFTER CONTROLS / LIMITATIONS

TOXIC AIR POLLUTANT AND CAS NO.	EF SOURCI	lb/hr	lb/day	lb/yr
Ammonia	Attached	2.50E+00	6.00E+01	2.19E+04
Arsenic	Attached	3.00E-03	7.20E-02	2.63E+01
Benzene	Attached	7.75E-01	1.86E+01	6.79E+03
Beryllium	Attached	1.65E-04	3.96E-03	1.45E+00
Cadmium	Attached	5.50E-04	1.32E-02	4.82E+00
Chromium (VI)	Attached	3.85E-03	9.24E-02	3.37E+01
Fluorides	Attached	2.25E-01	5.40E+00	1.97E+03
Formaldehyde	Attached	1.15E-01	2.76E+00	1.01E+03
Hydrogen Chloride	Attached	2.17E+00	5.21E+01	1.90E+04
Manganese	Attached	2.15E-01	5.16E+00	1.88E+03
Mercury	Attached	5.25E-03	1.26E-01	4.60E+01

Attachments: (1) emissions calculations and supporting documentation; (2) indicate all requested state and federal enforceable permit limits (e.g. hours of operation, emission rates) and describe how these are monitored and with what frequency; and (3) describe any monitoring devices, gauges, or test ports for this source

LETE THIS FORM AND COMPLETE AND ATTACH APPROPRIATE B1 THROUGH B9 FORM FOR EACH SO

Attach Additional Sheets As Necessary

FORM B

SPECIFIC EMISSIONS SOURCE INFORMATION (REQUIRED FOR ALL SOURCES)

REVISED 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **B**

EMISSION SOURCE DESCRIPTION:	EMISSION SOURCE ID NO: CHS
Clinker handling and storage	CONTROL DEVICE ID NO(S): CD19-21
OPERATING SCENARIO 1 OF 1	EMISSION POINT (STACK) ID NO(S): E19 - E21

DESCRIBE IN DETAILTHE EMISSION SOURCE PROCESS (ATTACH FLOW DIAGRAM):
Clinker discharge from clinker cooler, clinker dome, off-spec clinker bin

TYPE OF EMISSION SOURCE (CHECK AND COMPLETE APPROPRIATE FORM B1-B9 ON THE FOLLOWING PAGES):

☐ Coal,wood,oil, gas, other burner (Form B1) ☐ Woodworking (Form B4) ☐ Manufact. of chemicals/coatings/inks (Form B7)
☐ Int.combustion engine/generator (Form B2) ☐ Coating/finishing/printing (Forr ☐ Incineration (Form B8)
☐ Liquid storage tanks (Form B3) ☐ Storage silos/bins (Form B6) X Other (Form B9)

START CONSTRUCTION DATE: Mar-11	OPERATION DATE: Nov-13	DATE MANUFACTURED: TBD
MANUFACTURER / MODEL NO. TBD	EXPECTED OP. SCHEDULE: 24 HR/DAY 7 DAY/WK 52 WK/YR	
IS THIS SOURCE SUBJECT TO? NSPS (SUBPART?): F	NESHAP (SUBPART?):_____	MACT (SUBPART?): LLL
PERCENTAGE ANNUAL THROUGHPUT (%): DEC-FEB 25	MAR-MAY 25	JUN-AUG 25 SEP-NOV 25
EXPECTED ANNUAL HOURS OF OPERATIC 8760	VISIBLE STACK EMISSIONS UNDER NORMAL OPERATION: 10% OPACITY	

CRITERIA AIR POLLUTANT EMISSIONS INFORMATION FOR THIS SOURCE

	SOURCE OI	EXPECTED ACTUAL		POTENTIAL EMSSIONS			
	EMISSION	AFTER CONTROLS / LIMITS)		BEFORE CONTROLS / LIMITS		(AFTER CONTROLS / LIMITS)	
AIR POLLUTANT EMITTED	FACTOR	lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr
PARTICULATE MATTER (PM)	Attached	0.66	2.91	NA	NA	0.66	2.91
PARTICULATE MATTER<10 MICRONS (PM_{10})	Attached	0.56	2.45	NA	NA	0.56	2.45
PARTICULATE MATTER<2.5 MICRONS ($PM_{2.5}$)	Attached	0.30	1.31	NA	NA	0.30	1.31
SULFUR DIOXIDE (SO2)							
NITROGEN OXIDES (NOx)							
CARBON MONOXIDE (CO)							
VOLATILE ORGANIC COMPOUNDS (VOC)							
LEAD	Attached	5.32E-08	2.33E-07	NA	NA	5.32E-08	2.33E-07
OTHER							

HAZARDOUS AIR POLLUTANT EMISSIONS INFORMATION FOR THIS SOURCE

	SOURCE OI	EXPECTED ACTUAL		POTENTIAL EMSSIONS			
	EMISSION	AFTER CONTROLS / LIMITS)		BEFORE CONTROLS / LIMITS		(AFTER CONTROLS / LIMITS)	
HAZARDOUS AIR POLLUTANT AND CAS NO.	FACTOR	lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr
Arsenic	Attached	5.12E-07	2.24E-06	NA	NA	5.12E-07	2.24E-06
Beryllium	Attached	9.97E-08	4.37E-07	NA	NA	9.97E-08	4.37E-07
Cadmium	Attached	2.93E-07	1.28E-06	NA	NA	2.93E-07	1.28E-06
Chromium (Total)	Attached	4.74E-05	2.07E-04	NA	NA	4.74E-05	2.07E-04
Manganese	Attached	6.85E-05	3.00E-04	NA	NA	6.85E-05	3.00E-04
Mercury	Attached	5.98E-08	2.62E-07	NA	NA	5.98E-08	2.62E-07

TOXIC AIR POLLUTANT EMISSIONS INFORMATION FOR THIS SOURCE

INDICATE EXPECTED ACTUAL EMISSIONS AFTER CONTROLS / LIMITATIONS

TOXIC AIR POLLUTANT AND CAS NO.	EF SOURCE	lb/hr	lb/day	lb/yr
Arsenic	Attached	5.12E-07	1.23E-05	4.48E-03
Beryllium	Attached	9.97E-08	2.39E-06	8.74E-04
Cadmium	Attached	2.93E-07	7.02E-06	2.56E-03
Chromium (VI)	Attached	7.58E-06	1.82E-04	6.64E-02
Manganese	Attached	6.85E-05	1.64E-03	6.00E-01
Mercury	Attached	5.98E-08	1.44E-06	5.24E-04

Attachments: (1) emissions calculations and supporting documentation; (2) indicate all requested state and federal enforceable permit limits (e.g. hours of operation, emission rates) and describe how these are monitored and with what frequency; and (3) describe any monitoring devices, gauges, or test ports for this source.

PLETE THIS FORM AND COMPLETE AND ATTACH APPROPRIATE B1 THROUGH B9 FORM FOR EACH SO

Attach Additional Sheets As Necessary

FORM B

SPECIFIC EMISSIONS SOURCE INFORMATION (REQUIRED FOR ALL SOURCES)

REVISED 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **B**

EMISSION SOURCE DESCRIPTION:	EMISSION SOURCE ID NO: FM
Finish mills	CONTROL DEVICE ID NO(S): CD22-31, CD45-47
OPERATING SCENARIO 1 OF 1	EMISSION POINT (STACK) ID NO(S): E22-31, E45-47

DESCRIBE IN DETAILTHE EMISSION SOURCE PROCESS (ATTACH FLOW DIAGRAM):
Finish mills 1 and 2, feed bins, and cement transfer

TYPE OF EMISSION SOURCE (CHECK AND COMPLETE APPROPRIATE FORM B1-B9 ON THE FOLLOWING PAGES):

☐ Coal,wood,oil, gas, other burner (Form B1) ☐ Woodworking (Form B4) ☐ Manufact. of chemicals/coatings/inks (Form B7)
☐ Int.combustion engine/generator (Form B2) ☐ Coating/finishing/printing (Forr ☐ Incineration (Form B8)
☐ Liquid storage tanks (Form B3) ☐ Storage silos/bins (Form B6) X Other (Form B9)

START CONSTRUCTION DATE: Mar-11	OPERATION DATE: Nov-13	DATE MANUFACTURED: TBD
MANUFACTURER / MODEL NO. TBD	EXPECTED OP. SCHEDULE: 24 HR/DAY 7 DAY/WK 52 WK/YR	
IS THIS SOURCE SUBJECT TO? NSPS (SUBPART?): F	NESHAP (SUBPART?):_____	MACT (SUBPART?): LLL
PERCENTAGE ANNUAL THROUGHPUT (%): DEC-FEB 25	MAR-MAY 25	JUN-AUG 25 SEP-NOV 25
EXPECTED ANNUAL HOURS OF OPERATIC 8760	VISIBLE STACK EMISSIONS UNDER NORMAL OPERATION: 10% OPACITY	

CRITERIA AIR POLLUTANT EMISSIONS INFORMATION FOR THIS SOURCE

	SOURCE OI	EXPECTED ACTUAL		POTENTIAL EMSSIONS			
	EMISSION	AFTER CONTROLS / LIMITS)		BEFORE CONTROLS / LIMITS		(AFTER CONTROLS / LIMITS)	
AIR POLLUTANT EMITTED	FACTOR	lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr
PARTICULATE MATTER (PM)	Attached	13.19	57.79	NA	NA	13.19	57.79
PARTICULATE MATTER<10 MICRONS (PM_{10})	Attached	11.08	48.55	NA	NA	11.08	48.55
PARTICULATE MATTER<2.5 MICRONS ($PM_{2.5}$)	Attached	5.94	26.01	NA	NA	5.94	26.01
SULFUR DIOXIDE (SO2)							
NITROGEN OXIDES (NOx)							
CARBON MONOXIDE (CO)							
VOLATILE ORGANIC COMPOUNDS (VOC)							
LEAD	Attached	1.52E-04	6.65E-04	NA	NA	1.52E-04	6.65E-04
OTHER							

HAZARDOUS AIR POLLUTANT EMISSIONS INFORMATION FOR THIS SOURCE

	SOURCE OI	EXPECTED ACTUAL		POTENTIAL EMSSIONS			
	EMISSION	AFTER CONTROLS / LIMITS)		BEFORE CONTROLS / LIMITS		(AFTER CONTROLS / LIMITS)	
HAZARDOUS AIR POLLUTANT AND CAS NO.	FACTOR	lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr
Arsenic	Attached	2.27E-04	9.92E-04	NA	NA	2.27E-04	9.92E-04
Beryllium	Attached	1.38E-05	6.06E-05	NA	NA	1.38E-05	6.06E-05
Cadmium	Attached	2.78E-06	1.22E-05	NA	NA	2.78E-06	1.22E-05
Chromium (Total)	Attached	7.73E-04	3.39E-03	NA	NA	7.73E-04	3.39E-03
Manganese	Attached	3.05E-03	1.33E-02	NA	NA	3.05E-03	1.33E-02
Mercury	Attached	7.78E-07	3.41E-06	NA	NA	7.78E-07	3.41E-06

TOXIC AIR POLLUTANT EMISSIONS INFORMATION FOR THIS SOURCE

INDICATE EXPECTED ACTUAL EMISSIONS AFTER CONTROLS / LIMITATIONS

TOXIC AIR POLLUTANT AND CAS NO.	EF SOURCE	lb/hr	lb/day	lb/yr
Arsenic	Attached	2.27E-04	5.44E-03	1.98E+00
Beryllium	Attached	1.38E-05	3.32E-04	1.21E-01
Cadmium	Attached	2.78E-06	6.68E-05	2.44E-02
Chromium (VI)	Attached	1.23E-04	2.95E-03	1.08E+00
Manganese	Attached	3.05E-03	7.31E-02	2.67E+01
Mercury	Attached	7.78E-07	1.87E-05	6.81E-03

Attachments: (1) emissions calculations and supporting documentation; (2) indicate all requested state and federal enforceable permit limits (e.g. hours of operation, emission rates) and describe how these are monitored and with what frequency; and (3) describe any monitoring devices, gauges, or test ports for this source.

PLETE THIS FORM AND COMPLETE AND ATTACH APPROPRIATE B1 THROUGH B9 FORM FOR EACH SO

Attach Additional Sheets As Necessary

FORM B

SPECIFIC EMISSIONS SOURCE INFORMATION (REQUIRED FOR ALL SOURCES)

REVISED 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **B**

EMISSION SOURCE DESCRIPTION:	EMISSION SOURCE ID NO: CHSL
Cement handling, storage, and loadout	CONTROL DEVICE ID NO(S): CD32-34, 40-43
OPERATING SCENARIO 1 OF 1	EMISSION POINT (STACK) ID NO(S): E32 - E43

DESCRIBE IN DETAILTHE EMISSION SOURCE PROCESS (ATTACH FLOW DIAGRAM):
Cement dome; cement transport; truck and rail loadouts; and packing plant.

TYPE OF EMISSION SOURCE (CHECK AND COMPLETE APPROPRIATE FORM B1-B9 ON THE FOLLOWING PAGES):

☐ Coal,wood,oil, gas, other burner (Form B1) ☐ Woodworking (Form B4) ☐ Manufact. of chemicals/coatings/inks (Form B7)
☐ Int.combustion engine/generator (Form B2) ☐ Coating/finishing/printing (Forr ☐ Incineration (Form B8)
☐ Liquid storage tanks (Form B3) ☐ Storage silos/bins (Form B6) X Other (Form B9)

START CONSTRUCTION DATE: Mar-11	OPERATION DATE: Nov-13	DATE MANUFACTURED: TBD
MANUFACTURER / MODEL NO. TBD	EXPECTED OP. SCHEDULE: 24 HR/DAY 7 DAY/WK 52 WK/YR	
IS THIS SOURCE SUBJECT TO? NSPS (SUBPART?): F	NESHAP (SUBPART?):_____	MACT (SUBPART?): LLL
PERCENTAGE ANNUAL THROUGHPUT (%): DEC-FEB 25	MAR-MAY 25	JUN-AUG 25 SEP-NOV 25
EXPECTED ANNUAL HOURS OF OPERATIC 8760	VISIBLE STACK EMISSIONS UNDER NORMAL OPERATION: 10% OPACITY	

CRITERIA AIR POLLUTANT EMISSIONS INFORMATION FOR THIS SOURCE

	SOURCE OI	EXPECTED ACTUAL		POTENTIAL EMSSIONS			
	EMISSION	AFTER CONTROLS / LIMITS)		BEFORE CONTROLS / LIMITS		(AFTER CONTROLS / LIMITS)	
AIR POLLUTANT EMITTED	FACTOR	lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr
PARTICULATE MATTER (PM)	Attached	4.35	19.03	NA	NA	4.35	19.03
PARTICULATE MATTER<10 MICRONS (PM_{10})	Attached	3.65	15.99	NA	NA	3.65	15.99
PARTICULATE MATTER<2.5 MICRONS ($PM_{2.5}$)	Attached	1.96	8.57	NA	NA	1.96	8.57
SULFUR DIOXIDE (SO2)							
NITROGEN OXIDES (NOx)							
CARBON MONOXIDE (CO)							
VOLATILE ORGANIC COMPOUNDS (VOC)							
LEAD	Attached	5.39E-05	2.36E-04	NA	NA	5.39E-05	2.36E-04
OTHER							

HAZARDOUS AIR POLLUTANT EMISSIONS INFORMATION FOR THIS SOURCE

	SOURCE OI	EXPECTED ACTUAL		POTENTIAL EMSSIONS			
	EMISSION	AFTER CONTROLS / LIMITS)		BEFORE CONTROLS / LIMITS		(AFTER CONTROLS / LIMITS)	
HAZARDOUS AIR POLLUTANT AND CAS NO.	FACTOR	lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr
Arsenic	Attached	8.21E-05	3.60E-04	NA	NA	8.21E-05	3.60E-04
Beryllium	Attached	5.00E-06	2.19E-05	NA	NA	5.00E-06	2.19E-05
Cadmium	Attached	7.95E-07	3.48E-06	NA	NA	7.95E-07	3.48E-06
Chromium (Total)	Attached	2.80E-04	1.23E-03	NA	NA	2.80E-04	1.23E-03
Manganese	Attached	1.10E-03	4.80E-03	NA	NA	1.10E-03	4.80E-03
Mercury	Attached	1.65E-07	7.23E-07	NA	NA	1.65E-07	7.23E-07

TOXIC AIR POLLUTANT EMISSIONS INFORMATION FOR THIS SOURCE

INDICATE EXPECTED ACTUAL EMISSIONS AFTER CONTROLS / LIMITATIONS

TOXIC AIR POLLUTANT AND CAS NO.	EF SOURCE	lb/hr	lb/day	lb/yr
Arsenic	Attached	8.21E-05	1.97E-03	7.19E-01
Beryllium	Attached	5.00E-06	1.20E-04	4.38E-02
Cadmium	Attached	7.95E-07	1.91E-05	6.97E-03
Chromium (VI)	Attached	4.48E-05	1.07E-03	3.92E-01
Manganese	Attached	1.10E-03	2.63E-02	9.59E+00
Mercury	Attached	1.65E-07	3.96E-06	1.45E-03

Attachments: (1) emissions calculations and supporting documentation; (2) indicate all requested state and federal enforceable permit limits (e.g. hours of operation, emission rates) and describe how these are monitored and with what frequency; and (3) describe any monitoring devices, gauges, or test ports for this source.

PLETE THIS FORM AND COMPLETE AND ATTACH APPROPRIATE B1 THROUGH B9 FORM FOR EACH SO

Attach Additional Sheets As Necessary

FORM B

SPECIFIC EMISSIONS SOURCE INFORMATION (REQUIRED FOR ALL SOURCES)

REVISED 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **B**

EMISSION SOURCE DESCRIPTION:	EMISSION SOURCE ID NO: CHSL
Cement screw conveyor and truck load-out spout	CONTROL DEVICE ID NO(S): CD-P30
OPERATING SCENARIO 1 OF 1	EMISSION POINT (STACK) ID NO(S): ES-R33

DESCRIBE IN DETAILTHE EMISSION SOURCE PROCESS (ATTACH FLOW DIAGRAM):

Cement screw conveyor and truck load-out spout (existing). The baghouse for this source will be modified to comply with a 0.01 gr/scf emission limit.

TYPE OF EMISSION SOURCE (CHECK AND COMPLETE APPROPRIATE FORM B1-B9 ON THE FOLLOWING PAGES):

☐ Coal,wood,oil, gas, other burner (Form B1) ☐ Woodworking (Form B4) ☐ Manufact. of chemicals/coatings/inks (Form B7)
☐ Int.combustion engine/generator (Form B2) ☐ Coating/finishing/printing (Forr ☐ Incineration (Form B8)
☐ Liquid storage tanks (Form B3) ☐ Storage silos/bins (Form B6) X Other (Form B9)

START CONSTRUCTION DATE: Nov-09	OPERATION DATE: Nov-13	DATE MANUFACTURED: TBD
MANUFACTURER / MODEL NO. TBD	EXPECTED OP. SCHEDULE: 24 HR/DAY 7 DAY/WK 52 WK/YR	
IS THIS SOURCE SUBJECT TO? NSPS (SUBPART?): F	NESHAP (SUBPART?):_____	MACT (SUBPART?): LLL
PERCENTAGE ANNUAL THROUGHPUT (%): DEC-FEB 25	MAR-MAY 25	JUN-AUG 25 SEP-NOV 25
EXPECTED ANNUAL HOURS OF OPERATIC 8760	VISIBLE STACK EMISSIONS UNDER NORMAL OPERATION: 10% OPACITY	

CRITERIA AIR POLLUTANT EMISSIONS INFORMATION FOR THIS SOURCE

	SOURCE OI	EXPECTED ACTUAL		POTENTIAL EMSSIONS			
	EMISSION	AFTER CONTROLS / LIMITS)		BEFORE CONTROLS / LIMITS		(AFTER CONTROLS / LIMITS)	
AIR POLLUTANT EMITTED	FACTOR	lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr
PARTICULATE MATTER (PM)	Attached	0.13	0.56	NA	NA	0.13	0.56
PARTICULATE MATTER<10 MICRONS (PM_{10})	Attached	0.11	0.47	NA	NA	0.11	0.47
PARTICULATE MATTER<2.5 MICRONS ($PM_{2.5}$)	Attached	0.06	0.25	NA	NA	0.06	0.25
SULFUR DIOXIDE (SO2)							
NITROGEN OXIDES (NOx)							
CARBON MONOXIDE (CO)							
VOLATILE ORGANIC COMPOUNDS (VOC)							
LEAD	Attached	1.59E-06	6.98E-06	NA	NA	1.59E-06	6.98E-06
OTHER							

HAZARDOUS AIR POLLUTANT EMISSIONS INFORMATION FOR THIS SOURCE

	SOURCE OI	EXPECTED ACTUAL		POTENTIAL EMSSIONS			
	EMISSION	AFTER CONTROLS / LIMITS)		BEFORE CONTROLS / LIMITS		(AFTER CONTROLS / LIMITS)	
HAZARDOUS AIR POLLUTANT AND CAS NO.	FACTOR	lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr
Arsenic	Attached	2.43E-06	1.06E-05	NA	NA	2.43E-06	1.06E-05
Beryllium	Attached	1.48E-07	6.48E-07	NA	NA	1.48E-07	6.48E-07
Cadmium	Attached	2.35E-08	1.03E-07	NA	NA	2.35E-08	1.03E-07
Chromium (Total)	Attached	8.28E-06	3.63E-05	NA	NA	8.28E-06	3.63E-05
Manganese	Attached	3.24E-05	1.42E-04	NA	NA	3.24E-05	1.42E-04
Mercury	Attached	4.89E-09	2.14E-08	NA	NA	4.89E-09	2.14E-08

TOXIC AIR POLLUTANT EMISSIONS INFORMATION FOR THIS SOURCE

INDICATE EXPECTED ACTUAL EMISSIONS AFTER CONTROLS / LIMITATIONS

TOXIC AIR POLLUTANT AND CAS NO.	EF SOURCE	lb/hr	lb/day	lb/yr
Arsenic	Attached	2.43E-06	5.83E-05	2.13E-02
Beryllium	Attached	1.48E-07	3.55E-06	1.30E-03
Cadmium	Attached	2.35E-08	5.65E-07	2.06E-04
Chromium (VI)	Attached	1.32E-06	3.18E-05	1.16E-02
Manganese	Attached	3.24E-05	7.78E-04	2.84E-01
Mercury	Attached	4.89E-09	1.17E-07	4.28E-05

Attachments: (1) emissions calculations and supporting documentation; (2) indicate all requested state and federal enforceable permit limits (e.g. hours of operation, emission rates) and describe how these are monitored and with what frequency; and (3) de

PLETE THIS FORM AND COMPLETE AND ATTACH APPROPRIATE B1 THROUGH B9 FORM FOR EACH SO

Attach Additional Sheets As Necessary

FORM B

SPECIFIC EMISSIONS SOURCE INFORMATION (REQUIRED FOR ALL SOURCES)

REVISED 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **B**

EMISSION SOURCE DESCRIPTION:	EMISSION SOURCE ID NO: GEN
Emergency generator	CONTROL DEVICE ID NO(S): NA
OPERATING SCENARIO 1 OF 1	EMISSION POINT (STACK) ID NO(S): E44

DESCRIBE IN DETAILTHE EMISSION SOURCE PROCESS (ATTACH FLOW DIAGRAM):
800 kW diesel generator set; exhaust vents through the kiln stack

TYPE OF EMISSION SOURCE (CHECK AND COMPLETE APPROPRIATE FORM B1-B9 ON THE FOLLOWING PAGES):

☐ Coal,wood,oil, gas, other burner (Form B1) ☐ Woodworking (Form B4) ☐ Manufact. of chemicals/coatings/inks (Form B7)
X Int.combustion engine/generator (Form B2) ☐ Coating/finishing/printing (Forr ☐ Incineration (Form B8)
☐ Liquid storage tanks (Form B3) ☐ Storage silos/bins (Form B6) ☐ Other (Form B9)

START CONSTRUCTION DATE: Mar-11	OPERATION DATE: Nov-13	DATE MANUFACTURED: TBD
MANUFACTURER / MODEL NO. TBD	EXPECTED OP. SCHEDULE: ___ HR/DAY ___ DAY/WK ___ WK/YR	
IS THIS SOURCE SUBJECT TO? NSPS (SUBPART?): IIII	NESHAP (SUBPART?):_____	MACT (SUBPART?): ZZZZ
PERCENTAGE ANNUAL THROUGHPUT (%): DEC-FEB 25	MAR-MAY 25	JUN-AUG 25 SEP-NOV 25
EXPECTED ANNUAL HOURS OF OPERATIC 500	VISIBLE STACK EMISSIONS UNDER NORMAL OPERATION: <5% OPACITY	

CRITERIA AIR POLLUTANT EMISSIONS INFORMATION FOR THIS SOURCE

	SOURCE OI	EXPECTED ACTUAL		POTENTIAL EMSSIONS			
	EMISSION	AFTER CONTROLS / LIMITS)		BEFORE CONTROLS / LIMITS		(AFTER CONTROLS / LIMITS)	
AIR POLLUTANT EMITTED	FACTOR	lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr
PARTICULATE MATTER (PM)	Attached	0.35	0.09	NA	NA	0.35	0.09
PARTICULATE MATTER<10 MICRONS (PM_{10})	Attached	0.29	0.07	NA	NA	0.29	0.07
PARTICULATE MATTER<2.5 MICRONS ($PM_{2.5}$)	Attached	0.28	0.07	NA	NA	0.28	0.07
SULFUR DIOXIDE (SO2)	Attached	0.01	0.00	NA	NA	0.01	0.00
NITROGEN OXIDES (NOx)	Attached	11.11	2.78	NA	NA	11.11	2.78
CARBON MONOXIDE (CO)	Attached	6.17	1.54	NA	NA	6.17	1.54
VOLATILE ORGANIC COMPOUNDS (VOC)	Attached	0.18	0.04	NA	NA	0.18	0.04
LEAD							
OTHER							

HAZARDOUS AIR POLLUTANT EMISSIONS INFORMATION FOR THIS SOURCE

	SOURCE OI	EXPECTED ACTUAL		POTENTIAL EMSSIONS			
	EMISSION	AFTER CONTROLS / LIMITS)		BEFORE CONTROLS / LIMITS		(AFTER CONTROLS / LIMITS)	
HAZARDOUS AIR POLLUTANT AND CAS NO.	FACTOR	lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr
Benzene	Attached	6.08E-03	1.52E-03	NA	NA	6.08E-03	1.52E-03
Formaldehyde	Attached	6.18E-04	1.55E-04	NA	NA	6.18E-04	1.55E-04

TOXIC AIR POLLUTANT EMISSIONS INFORMATION FOR THIS SOURCE

INDICATE EXPECTED ACTUAL EMISSIONS AFTER CONTROLS / LIMITATIONS

TOXIC AIR POLLUTANT AND CAS NO.	EF SOURCE	lb/hr	lb/day	lb/yr
Benzene	Attached	6.08E-03	1.46E-01	3.04E+00
Formaldehyde	Attached	6.18E-04	1.48E-02	3.09E-01

Attachments: (1) emissions calculations and supporting documentation; (2) indicate all requested state and federal enforceable permit limits (e.g. hours of operation, emission rates) and describe how these are monitored and with what frequency; and (3) describe any monitoring devices, gauges, or test ports for this source.

PLETE THIS FORM AND COMPLETE AND ATTACH APPROPRIATE B1 THROUGH B9 FORM FOR EACH SO

Attach Additional Sheets As Necessary

FORM B

SPECIFIC EMISSIONS SOURCE INFORMATION (REQUIRED FOR ALL SOURCES)

REVISED 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **B**

EMISSION SOURCE DESCRIPTION: Storage piles	EMISSION SOURCE ID NO: SP
	CONTROL DEVICE ID NO(S): NA
OPERATING SCENARIO 1 OF 1	EMISSION POINT (STACK) ID NO(S): NA

DESCRIBE IN DETAILTHE EMISSION SOURCE PROCESS (ATTACH FLOW DIAGRAM):
Wind erosion from storage piles in quarry and raw material piles in the plant

TYPE OF EMISSION SOURCE (CHECK AND COMPLETE APPROPRIATE FORM B1-B9 ON THE FOLLOWING PAGES):

☐ Coal,wood,oil, gas, other burner (Form B1) ☐ Woodworking (Form B4) ☐ Manufact. of chemicals/coatings/inks (Form B7)
☐ Int.combustion engine/generator (Form B2) ☐ Coating/finishing/printing (Forr ☐ Incineration (Form B8)
☐ Liquid storage tanks (Form B3) ☐ Storage silos/bins (Form B6) X Other (Form B9)

START CONSTRUCTION DATE: NA	OPERATION DATE: Nov-13	DATE MANUFACTURED: NA
MANUFACTURER / MODEL NO. TBD	EXPECTED OP. SCHEDULE: 24 HR/DAY 7 DAY/WK 52 WK/YR	
IS THIS SOURCE SUBJECT TO? NSPS (SUBPART?):_____	NESHAP (SUBPART?):_____	MACT (SUBPART?):_____
PERCENTAGE ANNUAL THROUGHPUT (%): DEC-FEB 25	MAR-MAY 25	JUN-AUG 25 SEP-NOV 25
EXPECTED ANNUAL HOURS OF OPERATIC 8760	VISIBLE STACK EMISSIONS UNDER NORMAL OPERATION:	NA % OPACITY

CRITERIA AIR POLLUTANT EMISSIONS INFORMATION FOR THIS SOURCE

	SOURCE OI	EXPECTED ACTUAL		POTENTIAL EMSSIONS			
	EMISSION	AFTER CONTROLS / LIMITS)		BEFORE CONTROLS / LIMITS		(AFTER CONTROLS / LIMITS)	
AIR POLLUTANT EMITTED	FACTOR	lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr
PARTICULATE MATTER (PM)	Attached	1.92	8.40	NA	NA	1.92	8.40
PARTICULATE MATTER<10 MICRONS (PM_{10})	Attached	0.96	4.20	NA	NA	0.96	4.20
PARTICULATE MATTER<2.5 MICRONS ($PM_{2.5}$)	Attached	0.14	0.63	NA	NA	0.14	0.63
SULFUR DIOXIDE (SO2)							
NITROGEN OXIDES (NOx)							
CARBON MONOXIDE (CO)							
VOLATILE ORGANIC COMPOUNDS (VOC)							
LEAD	Attached	9.42E-05	4.13E-04	NA	NA	9.42E-05	4.13E-04
OTHER							

HAZARDOUS AIR POLLUTANT EMISSIONS INFORMATION FOR THIS SOURCE

	SOURCE OI	EXPECTED ACTUAL		POTENTIAL EMSSIONS			
	EMISSION	AFTER CONTROLS / LIMITS)		BEFORE CONTROLS / LIMITS		(AFTER CONTROLS / LIMITS)	
HAZARDOUS AIR POLLUTANT AND CAS NO.	FACTOR	lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr
Arsenic	Attached	1.86E-05	8.16E-05	NA	NA	1.86E-05	8.16E-05
Beryllium	Attached	2.93E-06	1.28E-05	NA	NA	2.93E-06	1.28E-05
Cadmium	Attached	4.56E-06	2.00E-05	NA	NA	4.56E-06	2.00E-05
Chromium (Total)	Attached	1.67E-04	7.32E-04	NA	NA	1.67E-04	7.32E-04
Manganese	Attached	4.54E-04	1.99E-03	NA	NA	4.54E-04	1.99E-03
Mercury	Attached	2.22E-07	9.71E-07	NA	NA	2.22E-07	9.71E-07

TOXIC AIR POLLUTANT EMISSIONS INFORMATION FOR THIS SOURCE

INDICATE EXPECTED ACTUAL EMISSIONS AFTER CONTROLS / LIMITATIONS

TOXIC AIR POLLUTANT AND CAS NO.	EF SOURCE	lb/hr	lb/day	lb/yr
Arsenic	Attached	1.86E-05	4.47E-04	1.63E-01
Beryllium	Attached	2.93E-06	7.02E-05	2.56E-02
Cadmium	Attached	4.56E-06	1.09E-04	3.99E-02
Chromium (VI)	Attached	1.07E-06	2.58E-05	9.41E-03
Manganese	Attached	4.54E-04	1.09E-02	3.98E+00
Mercury	Attached	2.22E-07	5.32E-06	1.94E-03

Attachments: (1) emissions calculations and supporting documentation; (2) indicate all requested state and federal enforceable permit limits (e.g. hours of operation, emission rates) and describe how these are monitored and with what frequency; and (3) describe any monitoring devices, gauges, or test ports for this source.

PLETE THIS FORM AND COMPLETE AND ATTACH APPROPRIATE B1 THROUGH B9 FORM FOR EACH SO

Attach Additional Sheets As Necessary

FORM B

SPECIFIC EMISSIONS SOURCE INFORMATION (REQUIRED FOR ALL SOURCES)

REVISED 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **B**

EMISSION SOURCE DESCRIPTION:	EMISSION SOURCE ID NO: MINE
Mining operations	CONTROL DEVICE ID NO(S): NA
OPERATING SCENARIO 1 OF 1	EMISSION POINT (STACK) ID NO(S): NA

DESCRIBE IN DETAILTHE EMISSION SOURCE PROCESS (ATTACH FLOW DIAGRAM):

Quarry mining activities including drilling, blasting, marl/limestone and spoils/other ripping and loading, overburden removal and unloading

TYPE OF EMISSION SOURCE (CHECK AND COMPLETE APPROPRIATE FORM B1-B9 ON THE FOLLOWING PAGES):

☐ Coal,wood,oil, gas, other burner (Form B1) ☐ Woodworking (Form B4) ☐ Manufact. of chemicals/coatings/inks (Form B7)

☐ Int.combustion engine/generator (Form B2) ☐ Coating/finishing/printing (Forr ☐ Incineration (Form B8)

☐ Liquid storage tanks (Form B3) ☐ Storage silos/bins (Form B6) X Other (Form B9)

START CONSTRUCTION DATE: NA	OPERATION DATE: Nov-13	DATE MANUFACTURED: NA
MANUFACTURER / MODEL NO. TBD	EXPECTED OP. SCHEDULE: 24 HR/DAY 7 DAY/WK 52 WK/YR	
IS THIS SOURCE SUBJECT TO? NSPS (SUBPART?):_____	NESHAP (SUBPART?):_____	MACT (SUBPART?):_____
PERCENTAGE ANNUAL THROUGHPUT (%): DEC-FEB 25	MAR-MAY 25	JUN-AUG 25 SEP-NOV 25
EXPECTED ANNUAL HOURS OF OPERATIC 8760	VISIBLE STACK EMISSIONS UNDER NORMAL OPERATION: NA % OPACITY	

CRITERIA AIR POLLUTANT EMISSIONS INFORMATION FOR THIS SOURCE

	SOURCE OI	EXPECTED ACTUAL		POTENTIAL EMSSIONS			
	EMISSION	AFTER CONTROLS / LIMITS)		BEFORE CONTROLS / LIMITS		(AFTER CONTROLS / LIMITS)	
AIR POLLUTANT EMITTED	FACTOR	lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr
PARTICULATE MATTER (PM)	Attached	3.54	15.53	NA	NA	3.54	15.53
PARTICULATE MATTER<10 MICRONS (PM_{10})	Attached	1.78	7.78	NA	NA	1.78	7.78
PARTICULATE MATTER<2.5 MICRONS ($PM_{2.5}$)	Attached	0.24	1.05	NA	NA	0.24	1.05
SULFUR DIOXIDE (SO2)							
NITROGEN OXIDES (NOx)							
CARBON MONOXIDE (CO)							
VOLATILE ORGANIC COMPOUNDS (VOC)							
LEAD	Attached	1.06E-04	4.66E-04	NA	NA	1.06E-04	4.66E-04
OTHER							

HAZARDOUS AIR POLLUTANT EMISSIONS INFORMATION FOR THIS SOURCE

	SOURCE OI	EXPECTED ACTUAL		POTENTIAL EMSSIONS			
	EMISSION	AFTER CONTROLS / LIMITS)		BEFORE CONTROLS / LIMITS		(AFTER CONTROLS / LIMITS)	
HAZARDOUS AIR POLLUTANT AND CAS NO.	FACTOR	lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr
Arsenic	Attached	7.09E-06	3.11E-05	NA	NA	7.09E-06	3.11E-05
Beryllium	Attached	7.09E-06	3.11E-05	NA	NA	7.09E-06	3.11E-05
Cadmium	Attached	6.91E-06	3.03E-05	NA	NA	6.91E-06	3.03E-05
Chromium (Total)	Attached	8.27E-05	3.62E-04	NA	NA	8.27E-05	3.62E-04
Manganese	Attached	5.06E-04	2.22E-03	NA	NA	5.06E-04	2.22E-03
Mercury	Attached	4.60E-08	2.01E-07	NA	NA	4.60E-08	2.01E-07

TOXIC AIR POLLUTANT EMISSIONS INFORMATION FOR THIS SOURCE

INDICATE EXPECTED ACTUAL EMISSIONS AFTER CONTROLS / LIMITATIONS

TOXIC AIR POLLUTANT AND CAS NO.	EF SOURCE	lb/hr	lb/day	lb/yr
Arsenic	Attached	7.09E-06	1.70E-04	6.21E-02
Beryllium	Attached	7.09E-06	1.70E-04	6.21E-02
Cadmium	Attached	6.91E-06	1.66E-04	6.05E-02
Chromium (VI)	Attached	3.54E-07	8.51E-06	3.11E-03
Manganese	Attached	5.06E-04	1.22E-02	4.44E+00
Mercury	Attached	4.60E-08	1.10E-06	4.03E-04

Attachments: (1) emissions calculations and supporting documentation; (2) indicate all requested state and federal enforceable permit limits (e.g. hours of operation, emission rates) and describe how these are monitored and with what frequency; and (3) describe any monitoring devices, gauges, or test ports for this source.

PLETE THIS FORM AND COMPLETE AND ATTACH APPROPRIATE B1 THROUGH B9 FORM FOR EACH SO

Attach Additional Sheets As Necessary

FORM B

SPECIFIC EMISSIONS SOURCE INFORMATION (REQUIRED FOR ALL SOURCES)

REVISED 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **B**

EMISSION SOURCE DESCRIPTION:	EMISSION SOURCE ID NO: PLTRD
Plant roads	CONTROL DEVICE ID NO(S): NA
OPERATING SCENARIO 1 OF 1	EMISSION POINT (STACK) ID NO(S): NA

DESCRIBE IN DETAILTHE EMISSION SOURCE PROCESS (ATTACH FLOW DIAGRAM):
Vehicle traffic on paved roads

TYPE OF EMISSION SOURCE (CHECK AND COMPLETE APPROPRIATE FORM B1-B9 ON THE FOLLOWING PAGES):

☐ Coal,wood,oil, gas, other burner (Form B1) ☐ Woodworking (Form B4) ☐ Manufact. of chemicals/coatings/inks (Form B7)
☐ Int.combustion engine/generator (Form B2) ☐ Coating/finishing/printing (Forr ☐ Incineration (Form B8)
☐ Liquid storage tanks (Form B3) ☐ Storage silos/bins (Form B6) X Other (Form B9)

START CONSTRUCTION DATE: Mar-11	OPERATION DATE: Nov-13	DATE MANUFACTURED: NA
MANUFACTURER / MODEL NO. TBD	EXPECTED OP. SCHEDULE: 24 HR/DAY 7 DAY/WK 52 WK/YR	
IS THIS SOURCE SUBJECT TO? NSPS (SUBPART?):_____	NESHAP (SUBPART?):_____	MACT (SUBPART?):_____
PERCENTAGE ANNUAL THROUGHPUT (%): DEC-FEB 25	MAR-MAY 25	JUN-AUG 25 SEP-NOV 25
EXPECTED ANNUAL HOURS OF OPERATIC 8760	VISIBLE STACK EMISSIONS UNDER NORMAL OPERATION: NA % OPACITY	

CRITERIA AIR POLLUTANT EMISSIONS INFORMATION FOR THIS SOURCE

	SOURCE OI	EXPECTED ACTUAL		POTENTIAL EMSSIONS			
	EMISSION	AFTER CONTROLS / LIMITS)		BEFORE CONTROLS / LIMITS		(AFTER CONTROLS / LIMITS)	
AIR POLLUTANT EMITTED	FACTOR	lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr
PARTICULATE MATTER (PM)	Attached	2.12	9.31	NA	NA	2.12	9.31
PARTICULATE MATTER<10 MICRONS (PM_{10})	Attached	0.41	1.81	NA	NA	0.41	1.81
PARTICULATE MATTER<2.5 MICRONS ($PM_{2.5}$)	Attached	0.10	0.44	NA	NA	0.10	0.44
SULFUR DIOXIDE (SO2)							
NITROGEN OXIDES (NOx)							
CARBON MONOXIDE (CO)							
VOLATILE ORGANIC COMPOUNDS (VOC)							
LEAD							
OTHER							

HAZARDOUS AIR POLLUTANT EMISSIONS INFORMATION FOR THIS SOURCE

	SOURCE OI	EXPECTED ACTUAL		POTENTIAL EMSSIONS			
	EMISSION	AFTER CONTROLS / LIMITS)		BEFORE CONTROLS / LIMITS		(AFTER CONTROLS / LIMITS)	
HAZARDOUS AIR POLLUTANT AND CAS NO.	FACTOR	lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr

TOXIC AIR POLLUTANT EMISSIONS INFORMATION FOR THIS SOURCE

INDICATE EXPECTED ACTUAL EMISSIONS AFTER CONTROLS / LIMITATIONS

TOXIC AIR POLLUTANT AND CAS NO.	EF SOURCE	lb/hr	lb/day	lb/yr

Attachments: (1) emissions calculations and supporting documentation; (2) indicate all requested state and federal enforceable permit limits (e.g. hours of operation, emission rates) and describe how these are monitored and with what frequency; and (3) describe any monitoring devices, gauges, or test ports for this source.

PLETE THIS FORM AND COMPLETE AND ATTACH APPROPRIATE B1 THROUGH B9 FORM FOR EACH SO

Attach Additional Sheets As Necessary

FORM B

SPECIFIC EMISSIONS SOURCE INFORMATION (REQUIRED FOR ALL SOURCES)

REVISED 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **B**

EMISSION SOURCE DESCRIPTION: Quarry roads	EMISSION SOURCE ID NO: QURD
	CONTROL DEVICE ID NO(S): NA
OPERATING SCENARIO 1 OF 1	EMISSION POINT (STACK) ID NO(S): NA

DESCRIBE IN DETAILTHE EMISSION SOURCE PROCESS (ATTACH FLOW DIAGRAM):
Vehcle traffic on unpaved roads in quarry

TYPE OF EMISSION SOURCE (CHECK AND COMPLETE APPROPRIATE FORM B1-B9 ON THE FOLLOWING PAGES):

☐ Coal,wood,oil, gas, other burner (Form B1) ☐ Woodworking (Form B4) ☐ Manufact. of chemicals/coatings/inks (Form B7)
☐ Int.combustion engine/generator (Form B2) ☐ Coating/finishing/printing (Forr ☐ Incineration (Form B8)
☐ Liquid storage tanks (Form B3) ☐ Storage silos/bins (Form B6) X Other (Form B9)

START CONSTRUCTION DATE: NA	OPERATION DATE: Nov-13	DATE MANUFACTURED: NA
MANUFACTURER / MODEL NO. TBD	EXPECTED OP. SCHEDULE: 24 HR/DAY 7 DAY/WK 52 WK/YR	
IS THIS SOURCE SUBJECT TO? NSPS (SUBPART?):_____	NESHAP (SUBPART?):_____	MACT (SUBPART?):_____
PERCENTAGE ANNUAL THROUGHPUT (%): DEC-FEB 25	MAR-MAY 25	JUN-AUG 25 SEP-NOV 25
EXPECTED ANNUAL HOURS OF OPERATIC 8760	VISIBLE STACK EMISSIONS UNDER NORMAL OPERATION: NA % OPACITY	

CRITERIA AIR POLLUTANT EMISSIONS INFORMATION FOR THIS SOURCE

	SOURCE OI	EXPECTED ACTUAL		POTENTIAL EMSSIONS			
	EMISSION	AFTER CONTROLS / LIMITS)		BEFORE CONTROLS / LIMITS		(AFTER CONTROLS / LIMITS)	
AIR POLLUTANT EMITTED	FACTOR	lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr
PARTICULATE MATTER (PM)	Attached	15.88	69.57	NA	NA	15.88	69.57
PARTICULATE MATTER<10 MICRONS (PM_{10})	Attached	4.52	19.78	NA	NA	4.52	19.78
PARTICULATE MATTER<2.5 MICRONS ($PM_{2.5}$)	Attached	0.45	1.98	NA	NA	0.45	1.98
SULFUR DIOXIDE (SO2)							
NITROGEN OXIDES (NOx)							
CARBON MONOXIDE (CO)							
VOLATILE ORGANIC COMPOUNDS (VOC)							
LEAD							
OTHER							

HAZARDOUS AIR POLLUTANT EMISSIONS INFORMATION FOR THIS SOURCE

	SOURCE OI	EXPECTED ACTUAL		POTENTIAL EMSSIONS			
	EMISSION	AFTER CONTROLS / LIMITS)		BEFORE CONTROLS / LIMITS		(AFTER CONTROLS / LIMITS)	
HAZARDOUS AIR POLLUTANT AND CAS NO.	FACTOR	lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr

TOXIC AIR POLLUTANT EMISSIONS INFORMATION FOR THIS SOURCE

INDICATE EXPECTED ACTUAL EMISSIONS AFTER CONTROLS / LIMITATIONS

TOXIC AIR POLLUTANT AND CAS NO.	EF SOURCE	lb/hr	lb/day	lb/yr

Attachments: (1) emissions calculations and supporting documentation; (2) indicate all requested state and federal enforceable permit limits (e.g. hours of operation, emission rates) and describe how these are monitored and with what frequency; and (3) describe any monitoring devices, gauges, or test ports for this source.

PLETE THIS FORM AND COMPLETE AND ATTACH APPROPRIATE B1 THROUGH B9 FORM FOR EACH SO

Attach Additional Sheets As Necessary

FORM B9

EMISSION SOURCE (OTHER)

REVISED: 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **B9**

EMISSION SOURCE DESCRIPTION:	EMISSION SOURCE ID NO: FQ
Quarry crushing and handling	CONTROL DEVICE ID NO(S): NA
OPERATING SCENARIO 1 OF 1	EMISSION POINT (STACK) ID NO(S): NA

DESCRIBE IN DETAIL THE PROCESS (ATTACH FLOW DIAGRAM):

Primary crushers (2) for marl/limestone and overburden/spoils, secondary crusher, and conveyor transfer points.

MATERIALS ENTERING PROCESS - CONTINUOUS PROCESS			MAX. DESIGN CAPACITY (UNIT/HR)	REQUESTED CAPACITY LIMITATION(UNIT/HR)
TYPE		UNITS		
Marl/limestone -	3,411,152	tpy	1500 tph	None
Spoils/other -	434,183	tpy	500 tph	None

MATERIALS ENTERING PROCESS - BATCH OPERATION		MAX. DESIGN CAPACITY (UNIT/BATCH)	REQUESTED CAPACITY LIMITATION (UNIT/BATCH)
TYPE	UNITS		

MAXIMUM DESIGN (BATCHES / HOUR):	
REQUESTED LIMITATION (BATCHES / HOUR):	(BATCHES/YR):
FUEL USED: None	TOTAL MAXIMUM FIRING RATE (MILLION BTU/HR):
MAX. CAPACITY HOURLY FUEL USE:	REQUESTED CAPACITY ANNUAL FUEL USE:

COMMENTS:

Quantities shown are wet basis. Relative quantities of each material may vary.

Spoils quantity assumes that 50% of the crushed material will be wasted (e.g., remains in the quarry) and not conveyed to the plant.

Attach Additional Sheets as Necessary

FORM B9

EMISSION SOURCE (OTHER)

REVISED: 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **B9**

EMISSION SOURCE DESCRIPTION:	EMISSION SOURCE ID NO: RMHS
Raw material unloading, handling, and storage	CONTROL DEVICE ID NO(S): NA
OPERATING SCENARIO 1 OF 1	EMISSION POINT (STACK) ID NO(S): NA

DESCRIBE IN DETAIL THE PROCESS (ATTACH FLOW DIAGRAM):

Unloading, handling, and storage of quarried raw materials, additives, gypsum, and solid fuels (coal, coke) (fugitve transfer points)

MATERIALS ENTERING PROCESS - CONTINUOUS PROCESS			MAX. DESIGN	REQUESTED CAPACITY
TYPE		UNITS	CAPACITY (UNIT/HR)	LIMITATION(UNIT/HR)
Additives -	425,102	tpy	NA	None
Coal/coke -	283,824	tpy	NA	None
Quarried raw materials -	3,628,243	tpy	NA	None
Gypsum -	127,549	tpy	NA	None
Limestone -	102,040	tpy	NA	None

MATERIALS ENTERING PROCESS - BATCH OPERATION		MAX. DESIGN	REQUESTED CAPACITY
TYPE	UNITS	CAPACITY (UNIT/BATCH)	LIMITATION (UNIT/BATCH)

MAXIMUM DESIGN (BATCHES / HOUR):	
REQUESTED LIMITATION (BATCHES / HOUR):	(BATCHES/YR):
FUEL USED: None	TOTAL MAXIMUM FIRING RATE (MILLION BTU/HR):
MAX. CAPACITY HOURLY FUEL USE:	REQUESTED CAPACITY ANNUAL FUEL USE:

COMMENTS:

Additives may consist of fly ash/bottom ash, mill scale, bauxite, sand, and/or other purchased raw materials.

Quarried raw materials may consist of marl, limestone, clay and/or spoils.

Quantities shown are wet basis. Relative quantities of each material may vary.

Attach Additional Sheets as Necessary

FORM B9

EMISSION SOURCE (OTHER)

REVISED: 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **B9**

EMISSION SOURCE DESCRIPTION:	EMISSION SOURCE ID NO: RMKF
Raw mill and kiln feed	CONTROL DEVICE ID NO(S): CD5-CD13
OPERATING SCENARIO 1 OF 1	EMISSION POINT (STACK) ID NO(S): E5 - E13

DESCRIBE IN DETAIL THE PROCESS (ATTACH FLOW DIAGRAM):

Raw mill feed storage and handling; kiln feed storage and handling; kiln dust bins

MATERIALS ENTERING PROCESS - CONTINUOUS PROCESS		MAX. DESIGN CAPACITY (UNIT/HR)	REQUESTED CAPACITY LIMITATION(UNIT/HR)
TYPE	UNITS		
Raw mill feed - 3,398,880	tpy	485	None
Virgin kiln feed - 3,376,980	tpy	386	None

MATERIALS ENTERING PROCESS - BATCH OPERATION		MAX. DESIGN CAPACITY (UNIT/BATCH)	REQUESTED CAPACITY LIMITATION (UNIT/BATCH)
TYPE	UNITS		

MAXIMUM DESIGN (BATCHES / HOUR):	
REQUESTED LIMITATION (BATCHES / HOUR):	(BATCHES/YR):
FUEL USED: None	TOTAL MAXIMUM FIRING RATE (MILLION BTU/HR):
MAX. CAPACITY HOURLY FUEL USE:	REQUESTED CAPACITY ANNUAL FUEL USE:

COMMENTS:

Quantities shown are dry basis.

Attach Additional Sheets as Necessary

FORM B9

EMISSION SOURCE (OTHER)

REVISED: 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **B9**

EMISSION SOURCE DESCRIPTION:	EMISSION SOURCE ID NO: COAL
Coal/coke handling system and mill	CONTROL DEVICE ID NO(S): CD1-4, CD14-18
OPERATING SCENARIO 1 OF 1	EMISSION POINT (STACK) ID NO(S): E1-E4, E14-E18

DESCRIBE IN DETAIL THE PROCESS (ATTACH FLOW DIAGRAM):

Coal/coke unloading, conveying, and storage bins

MATERIALS ENTERING PROCESS - CONTINUOUS PROCESS		MAX. DESIGN	REQUESTED CAPACITY
TYPE	UNITS	CAPACITY (UNIT/HR)	LIMITATION(UNIT/HR)
Coal/Coke - 283,824	tpy	30	None

MATERIALS ENTERING PROCESS - BATCH OPERATION		MAX. DESIGN	REQUESTED CAPACITY
TYPE	UNITS	CAPACITY (UNIT/BATCH)	LIMITATION (UNIT/BATCH)

MAXIMUM DESIGN (BATCHES / HOUR):	
REQUESTED LIMITATION (BATCHES / HOUR):	(BATCHES/YR):
FUEL USED: None	TOTAL MAXIMUM FIRING RATE (MILLION BTU/HR):
MAX. CAPACITY HOURLY FUEL USE:	REQUESTED CAPACITY ANNUAL FUEL USE:

COMMENTS:

Quantities shown are wet basis as received.

Attach Additional Sheets as Necessary

FORM B9

EMISSION SOURCE (OTHER)

REVISED: 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **B9**

EMISSION SOURCE DESCRIPTION:	EMISSION SOURCE ID NO: KS
Kiln system	CONTROL DEVICE ID NO(S): CD44A,B,C,N,S
OPERATING SCENARIO All	EMISSION POINT (STACK) ID NO(S): E44

DESCRIBE IN DETAIL THE PROCESS (ATTACH FLOW DIAGRAM):

Kiln with in-line raw mill, clinker cooler, preheater bypass, and coal mill. The raw mill runs approximately 80% of the time and is off (bypassed) approximately 20% of the time that the kiln is operating.

MATERIALS ENTERING PROCESS - CONTINUOUS PROCESS		MAX. DESIGN	REQUESTED CAPACITY
TYPE	UNITS	CAPACITY (UNIT/HR)	LIMITATION(UNIT/HR)
Kiln feed with recycle - 3,677,010	tpy	420	None*

MATERIALS ENTERING PROCESS - BATCH OPERATION		MAX. DESIGN	REQUESTED CAPACITY
TYPE	UNITS	CAPACITY (UNIT/BATCH)	LIMITATION (UNIT/BATCH)

MAXIMUM DESIGN (BATCHES / HOUR):

REQUESTED LIMITATION (BATCHES / HOUR): (BATCHES/YR):

FUEL USED: Coal, coke, fuel oil, nat. gas	TOTAL MAXIMUM FIRING RATE (MILLION BTU/HR): 675
MAX. CAPACITY HOURLY FUEL USE: 30 tph	REQUESTED CAPACITY ANNUAL FUEL USE: None

COMMENTS:

* Request annual production limit of 2,190,000 tons clinker.

Attach Additional Sheets as Necessary

FORM B9

EMISSION SOURCE (OTHER)

REVISED: 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **B9**

EMISSION SOURCE DESCRIPTION:	EMISSION SOURCE ID NO: CHS
Clinker handling and storage	CONTROL DEVICE ID NO(S): CD19-21
OPERATING SCENARIO 1 OF 1	EMISSION POINT (STACK) ID NO(S): E19 - E21

DESCRIBE IN DETAIL THE PROCESS (ATTACH FLOW DIAGRAM):
Clinker discharge from clinker cooler, clinker dome, off-spec clinker bin

MATERIALS ENTERING PROCESS - CONTINUOUS PROCESS		MAX. DESIGN	REQUESTED CAPACITY
TYPE	UNITS	CAPACITY (UNIT/HR)	LIMITATION(UNIT/HR)
Clinker - 2,190,000	tpy	250	None

MATERIALS ENTERING PROCESS - BATCH OPERATION		MAX. DESIGN	REQUESTED CAPACITY
TYPE	UNITS	CAPACITY (UNIT/BATCH)	LIMITATION (UNIT/BATCH)

MAXIMUM DESIGN (BATCHES / HOUR):	
REQUESTED LIMITATION (BATCHES / HOUR):	(BATCHES/YR):
FUEL USED: None	TOTAL MAXIMUM FIRING RATE (MILLION BTU/HR):
MAX. CAPACITY HOURLY FUEL USE:	REQUESTED CAPACITY ANNUAL FUEL USE:

COMMENTS:

Attach Additional Sheets as Necessary

FORM B9

EMISSION SOURCE (OTHER)

REVISED: 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **B9**

EMISSION SOURCE DESCRIPTION:	EMISSION SOURCE ID NO: FM
Finish mills	CONTROL DEVICE ID NO(S): CD22-31, CD45-47
OPERATING SCENARIO 1 OF 1	EMISSION POINT (STACK) ID NO(S): E22-31, E45-47

DESCRIBE IN DETAIL THE PROCESS (ATTACH FLOW DIAGRAM):
Finish mills 1 and 2, feed bins, and cement transfer

MATERIALS ENTERING PROCESS - CONTINUOUS PROCESS			MAX. DESIGN	REQUESTED CAPACITY
TYPE		UNITS	CAPACITY (UNIT/HR)	LIMITATION(UNIT/HR)
Clinker -	2,190,000	tpy	150 tph cement each	None
Gypsum -	127,549	tpy	NA	None
Limestone -	102,040	tpy	NA	None

MATERIALS ENTERING PROCESS - BATCH OPERATION		MAX. DESIGN	REQUESTED CAPACITY
TYPE	UNITS	CAPACITY (UNIT/BATCH)	LIMITATION (UNIT/BATCH)

MAXIMUM DESIGN (BATCHES / HOUR):

REQUESTED LIMITATION (BATCHES / HOUR): (BATCHES/YR):

FUEL USED: None	TOTAL MAXIMUM FIRING RATE (MILLION BTU/HR):
MAX. CAPACITY HOURLY FUEL USE:	REQUESTED CAPACITY ANNUAL FUEL USE:

COMMENTS:

Attach Additional Sheets as Necessary

FORM B9

EMISSION SOURCE (OTHER)

REVISED: 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **B9**

EMISSION SOURCE DESCRIPTION:	EMISSION SOURCE ID NO: CHSL
Cement handling, storage, and loadout	CONTROL DEVICE ID NO(S): CD32-34, 40-43
OPERATING SCENARIO 1 OF 1	EMISSION POINT (STACK) ID NO(S): E32 - E43

DESCRIBE IN DETAIL THE PROCESS (ATTACH FLOW DIAGRAM):

Cement dome; cement transport; truck and rail loadouts; and packing plant.

MATERIALS ENTERING PROCESS - CONTINUOUS PROCESS		MAX. DESIGN	REQUESTED CAPACITY
TYPE	UNITS	CAPACITY (UNIT/HR)	LIMITATION(UNIT/HR)
Cement - 2,406,593	tpy	170 tph (packhouse)	None
		350 tph (truck)	None
		350 tph (rail)	None

MATERIALS ENTERING PROCESS - BATCH OPERATION		MAX. DESIGN	REQUESTED CAPACITY
TYPE	UNITS	CAPACITY (UNIT/BATCH)	LIMITATION (UNIT/BATCH)

MAXIMUM DESIGN (BATCHES / HOUR):	
REQUESTED LIMITATION (BATCHES / HOUR):	(BATCHES/YR):
FUEL USED: None	TOTAL MAXIMUM FIRING RATE (MILLION BTU/HR):
MAX. CAPACITY HOURLY FUEL USE:	REQUESTED CAPACITY ANNUAL FUEL USE:

COMMENTS:

Attach Additional Sheets as Necessary

FORM B9

EMISSION SOURCE (OTHER)

REVISED: 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **B9**

EMISSION SOURCE DESCRIPTION:	EMISSION SOURCE ID NO: CHSL
Cement screw conveyor and truck load-out spout	CONTROL DEVICE ID NO(S): CD-P30
OPERATING SCENARIO 1 OF 1	EMISSION POINT (STACK) ID NO(S): ES-R33

DESCRIBE IN DETAIL THE PROCESS (ATTACH FLOW DIAGRAM):

Cement screw conveyor and truck load-out spout (existing). The baghouse for this source will be modified to comply with a 0.01 gr/scf emission limit.

MATERIALS ENTERING PROCESS - CONTINUOUS PROCESS		MAX. DESIGN	REQUESTED CAPACITY
TYPE	UNITS	CAPACITY (UNIT/HR)	LIMITATION(UNIT/HR)
Cement -* 2,406,593	tpy	150 tph (truck)	None

MATERIALS ENTERING PROCESS - BATCH OPERATION		MAX. DESIGN	REQUESTED CAPACITY
TYPE	UNITS	CAPACITY (UNIT/BATCH)	LIMITATION (UNIT/BATCH)

MAXIMUM DESIGN (BATCHES / HOUR):	
REQUESTED LIMITATION (BATCHES / HOUR):	(BATCHES/YR):
FUEL USED: None	TOTAL MAXIMUM FIRING RATE (MILLION BTU/HR):
MAX. CAPACITY HOURLY FUEL USE:	REQUESTED CAPACITY ANNUAL FUEL USE:

COMMENTS:

*Annual throughput quantity reflects all CHSL sources

Attach Additional Sheets as Necessary

FORM B2

EMISSION SOURCE (INTERNAL COMBUSTION ENGINES/GENERATORS)

REVISED 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **B2**

EMISSION SOURCE DESCRIPTION: Emergency generator	EMISSION SOURCE ID NO: GEN
	CONTROL DEVICE ID NO(S): NA
OPERATING SCENARIO 1 OF 1	EMISSION POINT (STACK) ID NO(S): E44

CHECK ALL THAT APPLY X EMERGENCY G SPACE HEAT G ELECTRICAL GENERATION
G PEAK SHAVER G OTHER (DESCRIBE): _____

GENERATOR OUTPUT (KW): 800 ANTICIPATED ACTUAL HOURS OF OPERATION AS PEAK SHAVER (HRS/YR): NA

ENGINE OUTPUT (HP):

TYPE ICE: G GASOLINE ENGINE G DIESEL ENGINE UP TO 600 H X DIESEL ENGINE GREATER THAN 600 HP G DUAL FUEL ENGINE
G OTHER (DESCRIBE): _____ (complete below)

ENGINE TYPE G RICH BURN X LEAN BURN

EMISSION REDUCTION MODIFICATIONS G INJECTION TIMING RETAI G PREIGNITION CHAMBER COMBUSTION G OTHER _____

OR G STATIONARY GAS TURBINE (complete belov

FUEL G NATURAL GAS G OIL
G OTHER (DESCRIBE):_____

CYCLE: G COGENERATION G SIMPLE
G REGENERATIVE G COMBINED

CONTROLS: G WATER-STEAM INJECTION
G UNCONTROLLED G LEAN-PREMIX

G NATURAL GAS PIPELINE COMPRESSOR OR TURBINE (complete below)

ENGINE TYPE: G 2-CYCLE LEAN BURN G 4-CYCLE LEAN G TURBINE
G 4-CYCLE RICH BURN G OTHER (DESCRIBE): _____

CONTROLS: G COMBUSTION MODIFICATIONS (DESCRIBE): _____
G NONSELECTIVE CATALYTIC REDUCTION G SELECTIVE CATALYTIC REDUCTION
G CLEAN BURN AND PRECOMBUSTION CHAMBER G UNCONTROLLED

FUEL USAGE (INCLUDE STARTUP/BACKUP FUEL)

FUEL TYPE	UNITS	MAXIMUM DESIGN CAPACITY (UNIT/HR)	REQUESTED CAPACITY LIMITATION (UNIT/HR)
Diesel		57.2 gal/hr	None

FUEL CHARACTERISTICS (COMPLETE ALL THAT ARE APPLICABLE)

FUEL TYPE	BTU/UNIT	UNITS	SULFUR CONTENT (% BY WEIGHT)
Diesel	137,200 Btu/gal		0.0015

MANUFACTURER'S SPECIFIC EMISSION FACTORS (IF AVAILABLE)

POLLUTANT	NOX	CO	PM	PM10	VOC	OTHER
EMISSION FACTOR LB/UNIT	6.3	3.5	0.2	0.164	0.1	
UNIT	g/KW*hr	g/KW*hr	g/KW*hr	g/KW*hr	g/KW*hr	

DESCRIBE METHODS TO MINIMIZE VISIBLE EMISSIONS DURING IDLING, OR LOW LOAD OPERATIONS:

COMMENTS:

Attach Additional Sheets As Necessary

FORM B9

EMISSION SOURCE (OTHER)

REVISED: 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **B9**

EMISSION SOURCE DESCRIPTION:	EMISSION SOURCE ID NO: SP
Storage piles	CONTROL DEVICE ID NO(S): NA
OPERATING SCENARIO 1 OF 1	EMISSION POINT (STACK) ID NO(S): NA

DESCRIBE IN DETAIL THE PROCESS (ATTACH FLOW DIAGRAM):

Wind erosion from storage piles in quarry and raw material piles in the plant

MATERIALS ENTERING PROCESS - CONTINUOUS PROCESS			MAX. DESIGN	REQUESTED CAPACITY
TYPE		UNITS	CAPACITY (UNIT/HR)	LIMITATION(UNIT/HR)
Marl/limestone (Quarry) -	0.5	acres	NA	None
Spoils/other (Quarry) -	0.5	acres	NA	None
Spoils (Quarry) -	1.0	acres	NA	None
Overburden (Quarry) -	2.0	acres	NA	None
Marl/limestone/spoils (Plant) -	2.3	acres	NA	None
Mill scale (Plant) -	0.10	acres	NA	None
Fly ash/Bottom ash (Plant) -	0.25	acres	NA	None
Coal/coke (Plant) -	0.7	acres	NA	None
Gypsum (Plant) -	0.5	acres	NA	None
Limestone (Plant) -	0.4	acres	NA	None
MATERIALS ENTERING PROCESS - BATCH OPERATION			MAX. DESIGN	REQUESTED CAPACITY
TYPE		UNITS	CAPACITY (UNIT/BATCH)	LIMITATION (UNIT/BATCH)

MAXIMUM DESIGN (BATCHES / HOUR):	
REQUESTED LIMITATION (BATCHES / HOUR):	(BATCHES/YR):
FUEL USED: None	TOTAL MAXIMUM FIRING RATE (MILLION BTU/HR):
MAX. CAPACITY HOURLY FUEL USE:	REQUESTED CAPACITY ANNUAL FUEL USE:

COMMENTS:

Material types and relative quantities may vary.

Attach Additional Sheets as Necessary

FORM B9

EMISSION SOURCE (OTHER)

REVISED: 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **B9**

EMISSION SOURCE DESCRIPTION:	EMISSION SOURCE ID NO: MINE
Mining operations	CONTROL DEVICE ID NO(S): NA
OPERATING SCENARIO 1 OF 1	EMISSION POINT (STACK) ID NO(S): NA

DESCRIBE IN DETAIL THE PROCESS (ATTACH FLOW DIAGRAM):

Quarry mining activities including drilling, blasting, marl/limestone and spoils/other ripping and loading, overburden removal and unloading

MATERIALS ENTERING PROCESS - CONTINUOUS PROCESS			MAX. DESIGN	REQUESTED CAPACITY
TYPE		UNITS	CAPACITY (UNIT/HR)	LIMITATION(UNIT/HR)
Marl/limestone -	3,411,152	tpy	NA	None
Spoils/other -	434,183	tpy	NA	None
Overburden -	3,177,255	tpy	NA	None

MATERIALS ENTERING PROCESS - BATCH OPERATION		MAX. DESIGN	REQUESTED CAPACITY
TYPE	UNITS	CAPACITY (UNIT/BATCH)	LIMITATION (UNIT/BATCH)

MAXIMUM DESIGN (BATCHES / HOUR):	
REQUESTED LIMITATION (BATCHES / HOUR):	(BATCHES/YR):
FUEL USED: None	TOTAL MAXIMUM FIRING RATE (MILLION BTU/HR):
MAX. CAPACITY HOURLY FUEL USE:	REQUESTED CAPACITY ANNUAL FUEL USE:

COMMENTS:

Quantities shown are wet basis. Relative quantities of each material may vary.

Overburden quantity assumes that 50% of the crushed material will be wasted (e.g., remains in the quarry) and not conveyed to the plant.

Attach Additional Sheets as Necessary

FORM B9

EMISSION SOURCE (OTHER)

REVISED: 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **B9**

EMISSION SOURCE DESCRIPTION:	EMISSION SOURCE ID NO: PLTRD
Plant roads	CONTROL DEVICE ID NO(S): NA
OPERATING SCENARIO 1 OF 1	EMISSION POINT (STACK) ID NO(S): NA

DESCRIBE IN DETAIL THE PROCESS (ATTACH FLOW DIAGRAM):
Vehicle traffic on paved roads

MATERIALS ENTERING PROCESS - CONTINUOUS PROCESS		MAX. DESIGN	REQUESTED CAPACITY
TYPE	UNITS	CAPACITY (UNIT/HR)	LIMITATION(UNIT/HR)
NA		NA	None

MATERIALS ENTERING PROCESS - BATCH OPERATION		MAX. DESIGN	REQUESTED CAPACITY
TYPE	UNITS	CAPACITY (UNIT/BATCH)	LIMITATION (UNIT/BATCH)

MAXIMUM DESIGN (BATCHES / HOUR):	
REQUESTED LIMITATION (BATCHES / HOUR):	(BATCHES/YR):
FUEL USED: None	TOTAL MAXIMUM FIRING RATE (MILLION BTU/HR):
MAX. CAPACITY HOURLY FUEL USE:	REQUESTED CAPACITY ANNUAL FUEL USE:

COMMENTS:

Attach Additional Sheets as Necessary

FORM B9

EMISSION SOURCE (OTHER)

REVISED: 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **B9**

EMISSION SOURCE DESCRIPTION:	EMISSION SOURCE ID NO: QURD
Quarry roads	CONTROL DEVICE ID NO(S): NA
OPERATING SCENARIO 1 OF 1	EMISSION POINT (STACK) ID NO(S): NA

DESCRIBE IN DETAIL THE PROCESS (ATTACH FLOW DIAGRAM):
Vehcle traffic on unpaved roads in quarry

MATERIALS ENTERING PROCESS - CONTINUOUS PROCESS		MAX. DESIGN	REQUESTED CAPACITY
TYPE	UNITS	CAPACITY (UNIT/HR)	LIMITATION(UNIT/HR)
NA		NA	None

MATERIALS ENTERING PROCESS - BATCH OPERATION		MAX. DESIGN	REQUESTED CAPACITY
TYPE	UNITS	CAPACITY (UNIT/BATCH)	LIMITATION (UNIT/BATCH)

MAXIMUM DESIGN (BATCHES / HOUR):	
REQUESTED LIMITATION (BATCHES / HOUR):	(BATCHES/YR):
FUEL USED: None	TOTAL MAXIMUM FIRING RATE (MILLION BTU/HR):
MAX. CAPACITY HOURLY FUEL USE:	REQUESTED CAPACITY ANNUAL FUEL USE:

COMMENTS:

Attach Additional Sheets as Necessary

FORM C1

CONTROL DEVICE (FABRIC FILTER)

REVISED 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **C1**

CONTROL DEVICE ID NO: CD5	CONTROLS EMISSIONS FROM WHICH EMISSION SOURCE ID NO(S): RMKF
EMISSION POINT (STACK) ID NO(S): E5	POSITION IN SERIES OF CONTROLS NO. 1 OF 1 UNITS
MANUFACTURER: TBD	MODEL NO: TBD
DATE MANUFACTURED: TBD	PROPOSED OPERATION DATE: Nov-13
OPERATING SCENARIO:	PROPOSED START CONSTRUCTION DATE: Mar-11
1 OF 1	P.E. SEAL REQUIRED (PER 2Q .0112)? YES

DESCRIBE CONTROL SYSTEM:

Fabric filter

POLLUTANT(S) COLLECTED:	PM	PM10	PM2.5	
BEFORE CONTROL EMISSION RATE (LB/HR):	NA	NA	NA	
CAPTURE EFFICIENCY:	100 %	100 %	100 %	%
CONTROL DEVICE EFFICIENCY:	99.9 %	99.9 %	99+ %	%
CORRESPONDING OVERALL EFFICIENCY:	99.9 %	99.9 %	99+ %	%
EFFICIENCY DETERMINATION CODE:	4	4	4	
TOTAL EMISSION RATE (LB/HR):	0.72	0.60	0.32	

PRESSURE DROP (IN. H_20): MIN: MAX: TBD GAUGE? X YES G NO WARNING ALARM? G YES X NO

BULK PARTICLE DENSITY (LB/FT^3): NA	INLET TEMPERATURE (^{o}F): MIN MA 77
POLLUTANT LOADING RATE: NA G LB/HR G GR/FT^3	OUTLET TEMPERATURE (^{o}F): MIN MA) 77
INLET AIR FLOW RATE (ACFM): 8500	FILTER MAX OPERATING TEMP. (^{o}F): TBD

NO. OF COMPARTMENTS: TBD	NO. OF BAGS PER COMPARTMENT: TBD	LENGTH OF BAG (IN.): TBD
DIAMETER OF BAG (IN.): TBD	DRAFT: X INDUCED/NEG. G FORCED/POS.	FILTER SURFACE AREA (FT^2): TBD
AIR TO CLOTH RATIO: TBD	FILTER MATERIAL: TBD	G WOVEN G FELTED

DESCRIBE CLEANING PROCEDURES:

X AIR PULSE G SONIC

G REVERSE FLOW G SIMPLE BAG COLLAPSE

G MECHANICAL/SHAKER G RING BAG COLLAPSE

G OTHER

DESCRIBE INCOMING AIR STREAM:

Raw mill feed bin

PARTICLE SIZE DISTRIBUTION

SIZE (MICRONS)	WEIGHT % OF TOTAL	CUMULATIVE %
0-1		
1-10		
10-25		
25-50		
50-100		
>100		
	TOTAL = 100	

METHOD FOR DETERMINING WHEN TO CLEAN:

G AUTOMATIC G TIMED G MANUAL

METHOD FOR DETERMINING WHEN TO REPLACE THE BAGS:

G ALARM G INTERNAL INSPECTION G VISIBLE EMISSION G OTHER

SPECIAL CONDITIONS:

G MOISTURE BLINDING G CHEMICAL RESISTIVITY G OTHER

EXPLAIN:

DESCRIBE MAINTENANCE PROCEDURES: Regular inspections and maintenance will be performed as recommended by the manufacturer. The only particle size information is PM_{10} and $PM_{2.5}$ fractions per AP-42.

ON A SEPARATE PAGE, ATTACH A DIAGRAM SHOWING THE RELATIONSHIP OF THE CONTROL DEVICE TO ITS EMISSION SOURCE(S):

Attach Additional Sheets As Necessary

FORM C1

CONTROL DEVICE (FABRIC FILTER)

REVISED 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **C1**

CONTROL DEVICE ID NO: CD6	CONTROLS EMISSIONS FROM WHICH EMISSION SOURCE ID NO(S): RMKF
EMISSION POINT (STACK) ID NO(S): E6	POSITION IN SERIES OF CONTROLS NO. 1 OF 1 UNITS
MANUFACTURER: TBD	MODEL NO: TBD
DATE MANUFACTURED: TBD	PROPOSED OPERATION DATE: Nov-13
OPERATING SCENARIO:	PROPOSED START CONSTRUCTION DATE: Mar-11
1 OF 1	P.E. SEAL REQUIRED (PER 2Q .0112)? YES

DESCRIBE CONTROL SYSTEM:

Fabric filter

POLLUTANT(S) COLLECTED:	PM	PM10	PM2.5	
BEFORE CONTROL EMISSION RATE (LB/HR):	NA	NA	NA	
CAPTURE EFFICIENCY:	100 %	100 %	100 %	%
CONTROL DEVICE EFFICIENCY:	99.9 %	99.9 %	99+ %	%
CORRESPONDING OVERALL EFFICIENCY:	99.9 %	99.9 %	99+ %	%
EFFICIENCY DETERMINATION CODE:	4	4	4	
TOTAL EMISSION RATE (LB/HR):	0.65	0.55	0.29	

PRESSURE DROP (IN. H_20): MIN: MAX: TBD GAUGE? X YES G NO WARNING ALARM? G YES X NO

BULK PARTICLE DENSITY (LB/FT^3): NA	INLET TEMPERATURE (^{o}F): MIN MA 77
POLLUTANT LOADING RATE: NA G LB/HR G GR/FT^3	OUTLET TEMPERATURE (^{o}F): MIN MA) 77
INLET AIR FLOW RATE (ACFM): 7750	FILTER MAX OPERATING TEMP. (^{o}F): TBD

NO. OF COMPARTMENTS: TBD	NO. OF BAGS PER COMPARTMENT: TBD	LENGTH OF BAG (IN.): TBD
DIAMETER OF BAG (IN.): TBD	DRAFT: X INDUCED/NEG. G FORCED/POS.	FILTER SURFACE AREA (FT^2): TBD
AIR TO CLOTH RATIO: TBD	FILTER MATERIAL: TBD	G WOVEN G FELTED

DESCRIBE CLEANING PROCEDURES:

X AIR PULSE G SONIC

G REVERSE FLOW G SIMPLE BAG COLLAPSE

G MECHANICAL/SHAKER G RING BAG COLLAPSE

G OTHER

DESCRIBE INCOMING AIR STREAM:

Raw mill feed transport

PARTICLE SIZE DISTRIBUTION

SIZE (MICRONS)	WEIGHT % OF TOTAL	CUMULATIVE %
0-1		
1-10		
10-25		
25-50		
50-100		
>100		
	TOTAL = 100	

METHOD FOR DETERMINING WHEN TO CLEAN:

G AUTOMATIC G TIMED G MANUAL

METHOD FOR DETERMINING WHEN TO REPLACE THE BAGS:

G ALARM G INTERNAL INSPECTION G VISIBLE EMISSION G OTHER

SPECIAL CONDITIONS:

G MOISTURE BLINDING G CHEMICAL RESISTIVITY G OTHER

EXPLAIN:

DESCRIBE MAINTENANCE PROCEDURES: Regular inspections and maintenance will be performed as recommended by the manufacturer. The only particle size information is PM_{10} and $PM_{2.5}$ fractions per AP-42.

ON A SEPARATE PAGE, ATTACH A DIAGRAM SHOWING THE RELATIONSHIP OF THE CONTROL DEVICE TO ITS EMISSION SOURCE(S):

Attach Additional Sheets As Necessary

FORM C1

CONTROL DEVICE (FABRIC FILTER)

REVISED 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **C1**

CONTROL DEVICE ID NO: CD7	CONTROLS EMISSIONS FROM WHICH EMISSION SOURCE ID NO(S): RMKF
EMISSION POINT (STACK) ID NO(S): E7	POSITION IN SERIES OF CONTROLS NO. 1 OF 1 UNITS
MANUFACTURER: TBD	MODEL NO: TBD
DATE MANUFACTURED: TBD	PROPOSED OPERATION DATE: Nov-13
OPERATING SCENARIO:	PROPOSED START CONSTRUCTION DATE: Mar-11
1 OF 1	P.E. SEAL REQUIRED (PER 2Q .0112)? YES

DESCRIBE CONTROL SYSTEM:

Fabric filter

POLLUTANT(S) COLLECTED:	PM	PM10	PM2.5	
BEFORE CONTROL EMISSION RATE (LB/HR):	NA	NA	NA	
CAPTURE EFFICIENCY:	100 %	100 %	100 %	%
CONTROL DEVICE EFFICIENCY:	99.9 %	99.9 %	99+ %	%
CORRESPONDING OVERALL EFFICIENCY:	99.9 %	99.9 %	99+ %	%
EFFICIENCY DETERMINATION CODE:	4	4	4	
TOTAL EMISSION RATE (LB/HR):	0.91	0.76	0.41	

PRESSURE DROP (IN. H_20): MIN: MAX: TBD GAUGE? X YES G NO WARNING ALARM? G YES X NO

BULK PARTICLE DENSITY (LB/FT^3): NA	INLET TEMPERATURE (^oF): MIN MA 77
POLLUTANT LOADING RATE: NA G LB/HR G GR/FT^3	OUTLET TEMPERATURE (^oF): MIN MA) 77
INLET AIR FLOW RATE (ACFM): 10800	FILTER MAX OPERATING TEMP. (^oF): TBD

NO. OF COMPARTMENTS: TBD	NO. OF BAGS PER COMPARTMENT: TBD	LENGTH OF BAG (IN.): TBD
DIAMETER OF BAG (IN.): TBD	DRAFT: X INDUCED/NEG. G FORCED/POS.	FILTER SURFACE AREA (FT^2): TBD
AIR TO CLOTH RATIO: TBD	FILTER MATERIAL: TBD	G WOVEN G FELTED

DESCRIBE CLEANING PROCEDURES:

X AIR PULSE G SONIC

G REVERSE FLOW G SIMPLE BAG COLLAPSE

G MECHANICAL/SHAKER G RING BAG COLLAPSE

G OTHER

DESCRIBE INCOMING AIR STREAM:

Raw mill feed

PARTICLE SIZE DISTRIBUTION

SIZE (MICRONS)	WEIGHT % OF TOTAL	CUMULATIVE %
0-1		
1-10		
10-25		
25-50		
50-100		
>100		
	TOTAL = 100	

METHOD FOR DETERMINING WHEN TO CLEAN:

G AUTOMATIC G TIMED G MANUAL

METHOD FOR DETERMINING WHEN TO REPLACE THE BAGS:

G ALARM G INTERNAL INSPECTION G VISIBLE EMISSION G OTHER

SPECIAL CONDITIONS:

G MOISTURE BLINDING G CHEMICAL RESISTIVITY G OTHER

EXPLAIN:

DESCRIBE MAINTENANCE PROCEDURES: Regular inspections and maintenance will be performed as recommended by the manufacturer. The only particle size information is PM_{10} and $PM_{2.5}$ fractions per AP-42.

ON A SEPARATE PAGE, ATTACH A DIAGRAM SHOWING THE RELATIONSHIP OF THE CONTROL DEVICE TO ITS EMISSION SOURCE(S):

Attach Additional Sheets As Necessary

FORM C1

CONTROL DEVICE (FABRIC FILTER)

REVISED 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **C1**

CONTROL DEVICE ID NO: CD8	CONTROLS EMISSIONS FROM WHICH EMISSION SOURCE ID NO(S): RMKF
EMISSION POINT (STACK) ID NO(S): E8	POSITION IN SERIES OF CONTROLS NO. 1 OF 1 UNITS
MANUFACTURER: TBD	MODEL NO: TBD
DATE MANUFACTURED: TBD	PROPOSED OPERATION DATE: Nov-13
OPERATING SCENARIO:	PROPOSED START CONSTRUCTION DATE: Mar-11
1 OF 1	P.E. SEAL REQUIRED (PER 2Q .0112)? YES

DESCRIBE CONTROL SYSTEM:

Fabric filter

POLLUTANT(S) COLLECTED:	PM	PM10	PM2.5	
BEFORE CONTROL EMISSION RATE (LB/HR):	NA	NA	NA	
CAPTURE EFFICIENCY:	100 %	100 %	100 %	%
CONTROL DEVICE EFFICIENCY:	99.9 %	99.9 %	99+ %	%
CORRESPONDING OVERALL EFFICIENCY:	99.9 %	99.9 %	99+ %	%
EFFICIENCY DETERMINATION CODE:	4	4	4	
TOTAL EMISSION RATE (LB/HR):	0.96	0.81	0.43	

PRESSURE DROP (IN. H_20): MIN: MAX: TBD GAUGE? X YES G NO WARNING ALARM? G YES X NO

BULK PARTICLE DENSITY (LB/FT^3): NA	INLET TEMPERATURE (^{o}F): MIN MA 90
POLLUTANT LOADING RATE: NA G LB/HR G GR/FT^3	OUTLET TEMPERATURE (^{o}F): MIN MA 90
INLET AIR FLOW RATE (ACFM): 11700	FILTER MAX OPERATING TEMP. (^{o}F): TBD

NO. OF COMPARTMENTS: TBD	NO. OF BAGS PER COMPARTMENT: TBD	LENGTH OF BAG (IN.): TBD
DIAMETER OF BAG (IN.): TBD	DRAFT: X INDUCED/NEG. G FORCED/POS.	FILTER SURFACE AREA (FT^2): TBD
AIR TO CLOTH RATIO: TBD	FILTER MATERIAL: TBD	G WOVEN G FELTED

DESCRIBE CLEANING PROCEDURES:

X AIR PULSE G SONIC
G REVERSE FLOW G SIMPLE BAG COLLAPSE
G MECHANICAL/SHAKER G RING BAG COLLAPSE
G OTHER

DESCRIBE INCOMING AIR STREAM:

Raw mill reject

PARTICLE SIZE DISTRIBUTION

SIZE (MICRONS)	WEIGHT % OF TOTAL	CUMULATIVE %
0-1		
1-10		
10-25		
25-50		
50-100		
>100		
	TOTAL = 100	

METHOD FOR DETERMINING WHEN TO CLEAN:

G AUTOMATIC G TIMED G MANUAL

METHOD FOR DETERMINING WHEN TO REPLACE THE BAGS:

G ALARM G INTERNAL INSPECTION G VISIBLE EMISSION G OTHER

SPECIAL CONDITIONS:

G MOISTURE BLINDING G CHEMICAL RESISTIVITY G OTHER

EXPLAIN:

DESCRIBE MAINTENANCE PROCEDURES: Regular inspections and maintenance will be performed as recommended by the manufacturer. The only particle size information is PM_{10} and $PM_{2.5}$ fractions per AP-42.

ON A SEPARATE PAGE, ATTACH A DIAGRAM SHOWING THE RELATIONSHIP OF THE CONTROL DEVICE TO ITS EMISSION SOURCE(S):

Attach Additional Sheets As Necessary

FORM C1

CONTROL DEVICE (FABRIC FILTER)

REVISED 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **C1**

CONTROL DEVICE ID NO: CD9	CONTROLS EMISSIONS FROM WHICH EMISSION SOURCE ID NO(S): RMKF
EMISSION POINT (STACK) ID NO(S): E9	POSITION IN SERIES OF CONTROLS NO. 1 OF 1 UNITS
MANUFACTURER: TBD	MODEL NO: TBD
DATE MANUFACTURED: TBD	PROPOSED OPERATION DATE: Nov-13
OPERATING SCENARIO:	PROPOSED START CONSTRUCTION DATE: Mar-11
1 OF 1	P.E. SEAL REQUIRED (PER 2Q .0112)? YES

DESCRIBE CONTROL SYSTEM:

Fabric filter

POLLUTANT(S) COLLECTED:	PM	PM10	PM2.5	
BEFORE CONTROL EMISSION RATE (LB/HR):	NA	NA	NA	
CAPTURE EFFICIENCY:	100 %	100 %	100 %	%
CONTROL DEVICE EFFICIENCY:	99.9 %	99.9 %	99+ %	%
CORRESPONDING OVERALL EFFICIENCY:	99.9 %	99.9 %	99+ %	%
EFFICIENCY DETERMINATION CODE:	4	4	4	
TOTAL EMISSION RATE (LB/HR):	0.25	0.21	0.11	

PRESSURE DROP (IN. H_20): MIN: MAX: TBD GAUGE? X YES G NO WARNING ALARM? G YES X NO

BULK PARTICLE DENSITY (LB/FT^3): NA	INLET TEMPERATURE (^oF): MIN MA 302
POLLUTANT LOADING RATE: NA G LB/HR G GR/FT^3	OUTLET TEMPERATURE (^oF): MIN MA 302
INLET AIR FLOW RATE (ACFM): 4200	FILTER MAX OPERATING TEMP. (^oF): TBD

NO. OF COMPARTMENTS: TBD	NO. OF BAGS PER COMPARTMENT: TBD	LENGTH OF BAG (IN.): TBD
DIAMETER OF BAG (IN.): TBD	DRAFT: X INDUCED/NEG. G FORCED/POS.	FILTER SURFACE AREA (FT^2): TBD
AIR TO CLOTH RATIO: TBD	FILTER MATERIAL: TBD	G WOVEN G FELTED

DESCRIBE CLEANING PROCEDURES:

X AIR PULSE G SONIC

G REVERSE FLOW G SIMPLE BAG COLLAPSE

G MECHANICAL/SHAKER G RING BAG COLLAPSE

G OTHER

DESCRIBE INCOMING AIR STREAM:

Kiln dust bin

PARTICLE SIZE DISTRIBUTION

SIZE (MICRONS)	WEIGHT % OF TOTAL	CUMULATIVE %
0-1		
1-10		
10-25		
25-50		
50-100		
>100		
	TOTAL = 100	

METHOD FOR DETERMINING WHEN TO CLEAN:

G AUTOMATIC G TIMED G MANUAL

METHOD FOR DETERMINING WHEN TO REPLACE THE BAGS:

G ALARM G INTERNAL INSPECTION G VISIBLE EMISSION G OTHER

SPECIAL CONDITIONS:

G MOISTURE BLINDING G CHEMICAL RESISTIVITY G OTHER

EXPLAIN:

DESCRIBE MAINTENANCE PROCEDURES: Regular inspections and maintenance will be performed as recommended by the manufacturer. The only particle size information is PM_{10} and $PM_{2.5}$ fractions per AP-42.

ON A SEPARATE PAGE, ATTACH A DIAGRAM SHOWING THE RELATIONSHIP OF THE CONTROL DEVICE TO ITS EMISSION SOURCE(S):

Attach Additional Sheets As Necessary

FORM C1

CONTROL DEVICE (FABRIC FILTER)

REVISED 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **C1**

CONTROL DEVICE ID NO: CD10	CONTROLS EMISSIONS FROM WHICH EMISSION SOURCE ID NO(S): RMKF
EMISSION POINT (STACK) ID NO(S): E10	POSITION IN SERIES OF CONTROLS NO. 1 OF 1 UNITS

MANUFACTURER: TBD	MODEL NO: TBD
DATE MANUFACTURED: TBD	PROPOSED OPERATION DATE: Nov-13
OPERATING SCENARIO:	PROPOSED START CONSTRUCTION DATE: Mar-11
1 OF 1	P.E. SEAL REQUIRED (PER 2Q .0112)? YES

DESCRIBE CONTROL SYSTEM:

Fabric filter

POLLUTANT(S) COLLECTED:	PM	PM10	PM2.5	
BEFORE CONTROL EMISSION RATE (LB/HR):	NA	NA	NA	
CAPTURE EFFICIENCY:	100 %	100 %	100 %	%
CONTROL DEVICE EFFICIENCY:	99.9 %	99.9 %	99+ %	%
CORRESPONDING OVERALL EFFICIENCY:	99.9 %	99.9 %	99+ %	%
EFFICIENCY DETERMINATION CODE:	4	4	4	
TOTAL EMISSION RATE (LB/HR):	0.30	0.25	0.13	

PRESSURE DROP (IN. H_20): MIN: MAX: TBD GAUGE? X YES G NO WARNING ALARM? G YES X NO

BULK PARTICLE DENSITY (LB/FT^3): NA	INLET TEMPERATURE (^{o}F): MIN MA 150
POLLUTANT LOADING RATE: NA G LB/HR G GR/FT^3	OUTLET TEMPERATURE (^{o}F): MIN MAX 150
INLET AIR FLOW RATE (ACFM): 4000	FILTER MAX OPERATING TEMP. (^{o}F): TBD

NO. OF COMPARTMENTS: TBD	NO. OF BAGS PER COMPARTMENT: TBD	LENGTH OF BAG (IN.): TBD
DIAMETER OF BAG (IN.): TBD	DRAFT: X INDUCED/NEG. G FORCED/POS.	FILTER SURFACE AREA (FT^2): TBD
AIR TO CLOTH RATIO: TBD	FILTER MATERIAL: TBD	G WOVEN G FELTED

DESCRIBE CLEANING PROCEDURES:

X AIR PULSE G SONIC

G REVERSE FLOW G SIMPLE BAG COLLAPSE

G MECHANICAL/SHAKER G RING BAG COLLAPSE

G OTHER

DESCRIBE INCOMING AIR STREAM:

Raw meal transport to silo

PARTICLE SIZE DISTRIBUTION

SIZE (MICRONS)	WEIGHT % OF TOTAL	CUMULATIVE %
0-1		
1-10		
10-25		
25-50		
50-100		
>100		
	TOTAL = 100	

METHOD FOR DETERMINING WHEN TO CLEAN:

G AUTOMATIC G TIMED G MANUAL

METHOD FOR DETERMINING WHEN TO REPLACE THE BAGS:

G ALARM G INTERNAL INSPECTION G VISIBLE EMISSION G OTHER

SPECIAL CONDITIONS:

G MOISTURE BLINDING G CHEMICAL RESISTIVITY G OTHER

EXPLAIN:

DESCRIBE MAINTENANCE PROCEDURES: Regular inspections and maintenance will be performed as recommended by the manufacturer. The only particle size information is PM_{10} and $PM_{2.5}$ fractions per AP-42.

ON A SEPARATE PAGE, ATTACH A DIAGRAM SHOWING THE RELATIONSHIP OF THE CONTROL DEVICE TO ITS EMISSION SOURCE(S):

Attach Additional Sheets As Necessary

FORM C1

CONTROL DEVICE (FABRIC FILTER)

REVISED 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **C1**

CONTROL DEVICE ID NO: CD11	CONTROLS EMISSIONS FROM WHICH EMISSION SOURCE ID NO(S): RMKF
EMISSION POINT (STACK) ID NO(S): E11	POSITION IN SERIES OF CONTROLS NO. 1 OF 1 UNITS
MANUFACTURER: TBD	MODEL NO: TBD
DATE MANUFACTURED: TBD	PROPOSED OPERATION DATE: Nov-13
OPERATING SCENARIO:	PROPOSED START CONSTRUCTION DATE: Mar-11
1 OF 1	P.E. SEAL REQUIRED (PER 2Q .0112)? YES

DESCRIBE CONTROL SYSTEM:

Fabric filter

POLLUTANT(S) COLLECTED:	PM	PM10	PM2.5	
BEFORE CONTROL EMISSION RATE (LB/HR):	NA	NA	NA	
CAPTURE EFFICIENCY:	100 %	100 %	100 %	%
CONTROL DEVICE EFFICIENCY:	99.9 %	99.9 %	99+ %	%
CORRESPONDING OVERALL EFFICIENCY:	99.9 %	99.9 %	99+ %	%
EFFICIENCY DETERMINATION CODE:	4	4	4	
TOTAL EMISSION RATE (LB/HR):	0.31	0.26	0.14	

PRESSURE DROP (IN. H_20): MIN: MAX: TBD GAUGE? X YES G NO WARNING ALARM? G YES X NO

BULK PARTICLE DENSITY (LB/FT^3): NA	INLET TEMPERATURE (^{o}F): MIN MA 150
POLLUTANT LOADING RATE: NA G LB/HR G GR/FT^3	OUTLET TEMPERATURE (^{o}F): MIN MA 150
INLET AIR FLOW RATE (ACFM): 4200	FILTER MAX OPERATING TEMP. (^{o}F): TBD

NO. OF COMPARTMENTS: TBD	NO. OF BAGS PER COMPARTMENT: TBD	LENGTH OF BAG (IN.): TBD
DIAMETER OF BAG (IN.): TBD	DRAFT: X INDUCED/NEG. G FORCED/POS.	FILTER SURFACE AREA (FT^2): TBD
AIR TO CLOTH RATIO: TBD	FILTER MATERIAL: TBD	G WOVEN G FELTED

DESCRIBE CLEANING PROCEDURES:

X AIR PULSE G SONIC

G REVERSE FLOW G SIMPLE BAG COLLAPSE

G MECHANICAL/SHAKER G RING BAG COLLAPSE

G OTHER

DESCRIBE INCOMING AIR STREAM:

Raw meal silo

PARTICLE SIZE DISTRIBUTION

SIZE (MICRONS)	WEIGHT % OF TOTAL	CUMULATIVE %
0-1		
1-10		
10-25		
25-50		
50-100		
>100		
	TOTAL = 100	

METHOD FOR DETERMINING WHEN TO CLEAN:

G AUTOMATIC G TIMED G MANUAL

METHOD FOR DETERMINING WHEN TO REPLACE THE BAGS:

G ALARM G INTERNAL INSPECTION G VISIBLE EMISSION G OTHER

SPECIAL CONDITIONS:

G MOISTURE BLINDING G CHEMICAL RESISTIVITY G OTHER

EXPLAIN:

DESCRIBE MAINTENANCE PROCEDURES: Regular inspections and maintenance will be performed as recommended by the manufacturer. The only particle size information is PM_{10} and $PM_{2.5}$ fractions per AP-42.

ON A SEPARATE PAGE, ATTACH A DIAGRAM SHOWING THE RELATIONSHIP OF THE CONTROL DEVICE TO ITS EMISSION SOURCE(S):

Attach Additional Sheets As Necessary

FORM C1

CONTROL DEVICE (FABRIC FILTER)

REVISED 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **C1**

CONTROL DEVICE ID NO: CD12	CONTROLS EMISSIONS FROM WHICH EMISSION SOURCE ID NO(S): RMKF
EMISSION POINT (STACK) ID NO(S): E12	POSITION IN SERIES OF CONTROLS NO. 1 OF 1 UNITS
MANUFACTURER: TBD	MODEL NO: TBD
DATE MANUFACTURED: TBD	PROPOSED OPERATION DATE: Nov-13
OPERATING SCENARIO:	PROPOSED START CONSTRUCTION DATE: Mar-11
1 OF 1	P.E. SEAL REQUIRED (PER 2Q .0112)? YES

DESCRIBE CONTROL SYSTEM:

Fabric filter

POLLUTANT(S) COLLECTED:	PM	PM10	PM2.5	
BEFORE CONTROL EMISSION RATE (LB/HR):	NA	NA	NA	
CAPTURE EFFICIENCY:	100 %	100 %	100 %	%
CONTROL DEVICE EFFICIENCY:	99.9 %	99.9 %	99+ %	%
CORRESPONDING OVERALL EFFICIENCY:	99.9 %	99.9 %	99+ %	%
EFFICIENCY DETERMINATION CODE:	4	4	4	
TOTAL EMISSION RATE (LB/HR):	0.35	0.30	0.16	

PRESSURE DROP (IN. H_20): MIN: MAX: TBD GAUGE? X YES G NO WARNING ALARM? G YES X NO

BULK PARTICLE DENSITY (LB/FT^3): NA	INLET TEMPERATURE (^{o}F): MIN MA 150
POLLUTANT LOADING RATE: NA G LB/HR G GR/FT^3	OUTLET TEMPERATURE (^{o}F): MIN MA 150
INLET AIR FLOW RATE (ACFM): 4760	FILTER MAX OPERATING TEMP. (^{o}F): TBD

NO. OF COMPARTMENTS: TBD	NO. OF BAGS PER COMPARTMENT: TBD	LENGTH OF BAG (IN.): TBD
DIAMETER OF BAG (IN.): TBD	DRAFT: X INDUCED/NEG. G FORCED/POS.	FILTER SURFACE AREA (FT^2): TBD
AIR TO CLOTH RATIO: TBD	FILTER MATERIAL: TBD	G WOVEN G FELTED

DESCRIBE CLEANING PROCEDURES:

X AIR PULSE G SONIC

G REVERSE FLOW G SIMPLE BAG COLLAPSE

G MECHANICAL/SHAKER G RING BAG COLLAPSE

G OTHER

DESCRIBE INCOMING AIR STREAM:

Raw meal silo extraction

PARTICLE SIZE DISTRIBUTION

SIZE (MICRONS)	WEIGHT % OF TOTAL	CUMULATIVE %
0-1		
1-10		
10-25		
25-50		
50-100		
>100		
	TOTAL = 100	

METHOD FOR DETERMINING WHEN TO CLEAN:

G AUTOMATIC G TIMED G MANUAL

METHOD FOR DETERMINING WHEN TO REPLACE THE BAGS:

G ALARM G INTERNAL INSPECTION G VISIBLE EMISSION G OTHER

SPECIAL CONDITIONS:

G MOISTURE BLINDING G CHEMICAL RESISTIVITY G OTHER

EXPLAIN:

DESCRIBE MAINTENANCE PROCEDURES: Regular inspections and maintenance will be performed as recommended by the manufacturer. The only particle size information is PM_{10} and $PM_{2.5}$ fractions per AP-42.

ON A SEPARATE PAGE, ATTACH A DIAGRAM SHOWING THE RELATIONSHIP OF THE CONTROL DEVICE TO ITS EMISSION SOURCE(S):

Attach Additional Sheets As Necessary

FORM C1

CONTROL DEVICE (FABRIC FILTER)

REVISED 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **C1**

CONTROL DEVICE ID NO: CD13	CONTROLS EMISSIONS FROM WHICH EMISSION SOURCE ID NO(S): RMKF
EMISSION POINT (STACK) ID NO(S): E13	POSITION IN SERIES OF CONTROLS NO. 1 OF 1 UNITS
MANUFACTURER: TBD	MODEL NO: TBD
DATE MANUFACTURED: TBD	PROPOSED OPERATION DATE: Nov-13
OPERATING SCENARIO:	PROPOSED START CONSTRUCTION DATE: Mar-11
1 OF 1	P.E. SEAL REQUIRED (PER 2Q .0112)? YES

DESCRIBE CONTROL SYSTEM:

Fabric filter

POLLUTANT(S) COLLECTED:	PM	PM10	PM2.5	
BEFORE CONTROL EMISSION RATE (LB/HR):	NA	NA	NA	
CAPTURE EFFICIENCY:	100 %	100 %	100 %	%
CONTROL DEVICE EFFICIENCY:	99.9 %	99.9 %	99+ %	%
CORRESPONDING OVERALL EFFICIENCY:	99.9 %	99.9 %	99+ %	%
EFFICIENCY DETERMINATION CODE:	4	4	4	
TOTAL EMISSION RATE (LB/HR):	0.32	0.27	0.14	

PRESSURE DROP (IN. H_20): MIN: MAX: TBD GAUGE? X YES G NO WARNING ALARM? G YES X NO

BULK PARTICLE DENSITY (LB/FT^3): NA	INLET TEMPERATURE (^{o}F): MIN MA 150
POLLUTANT LOADING RATE: NA G LB/HR G GR/FT^3	OUTLET TEMPERATURE (^{o}F): MIN MAX 150
INLET AIR FLOW RATE (ACFM): 4300	FILTER MAX OPERATING TEMP. (^{o}F): TBD

NO. OF COMPARTMENTS: TBD	NO. OF BAGS PER COMPARTMENT: TBD	LENGTH OF BAG (IN.): TBD
DIAMETER OF BAG (IN.): TBD	DRAFT: X INDUCED/NEG. G FORCED/POS.	FILTER SURFACE AREA (FT^2): TBD
AIR TO CLOTH RATIO: TBD	FILTER MATERIAL: TBD	G WOVEN G FELTED

DESCRIBE CLEANING PROCEDURES:

X AIR PULSE G SONIC

G REVERSE FLOW G SIMPLE BAG COLLAPSE

G MECHANICAL/SHAKER G RING BAG COLLAPSE

G OTHER

DESCRIBE INCOMING AIR STREAM:

Kiln feed

PARTICLE SIZE DISTRIBUTION

SIZE (MICRONS)	WEIGHT % OF TOTAL	CUMULATIVE %
0-1		
1-10		
10-25		
25-50		
50-100		
>100		
	TOTAL = 100	

METHOD FOR DETERMINING WHEN TO CLEAN:

G AUTOMATIC G TIMED G MANUAL

METHOD FOR DETERMINING WHEN TO REPLACE THE BAGS:

G ALARM G INTERNAL INSPECTION G VISIBLE EMISSION G OTHER

SPECIAL CONDITIONS:

G MOISTURE BLINDING G CHEMICAL RESISTIVITY G OTHER

EXPLAIN:

DESCRIBE MAINTENANCE PROCEDURES: Regular inspections and maintenance will be performed as recommended by the manufacturer. The only particle size information is PM_{10} and $PM_{2.5}$ fractions per AP-42.

ON A SEPARATE PAGE, ATTACH A DIAGRAM SHOWING THE RELATIONSHIP OF THE CONTROL DEVICE TO ITS EMISSION SOURCE(S):

Attach Additional Sheets As Necessary

FORM C1

CONTROL DEVICE (FABRIC FILTER)

REVISED 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **C1**

CONTROL DEVICE ID NO: CD1	CONTROLS EMISSIONS FROM WHICH EMISSION SOURCE ID NO(S): COAL
EMISSION POINT (STACK) ID NO(S): E1	POSITION IN SERIES OF CONTROLS NO. 1 OF 1 UNITS
MANUFACTURER: TBD	MODEL NO: TBD
DATE MANUFACTURED: TBD	PROPOSED OPERATION DATE: Nov-13
OPERATING SCENARIO:	PROPOSED START CONSTRUCTION DATE: Mar-11
1 OF 1	P.E. SEAL REQUIRED (PER 2Q .0112)? YES

DESCRIBE CONTROL SYSTEM:

Fabric filter

POLLUTANT(S) COLLECTED:	PM	PM10	PM2.5	
BEFORE CONTROL EMISSION RATE (LB/HR):	NA	NA	NA	
CAPTURE EFFICIENCY:	100 %	100 %	100 %	%
CONTROL DEVICE EFFICIENCY:	99.9 %	99.9 %	99+ %	%
CORRESPONDING OVERALL EFFICIENCY:	99.9 %	99.9 %	99+ %	%
EFFICIENCY DETERMINATION CODE:	4	4	4	
TOTAL EMISSION RATE (LB/HR):	0.47	0.39	0.21	

PRESSURE DROP (IN. H_20): MIN: MAX: TBD GAUGE? X YES G NO WARNING ALARM? G YES X NO

BULK PARTICLE DENSITY (LB/FT^3): NA	INLET TEMPERATURE (^{o}F): MIN MA 77
POLLUTANT LOADING RATE: NA G LB/HR G GR/FT^3	OUTLET TEMPERATURE (^{o}F): MIN MA) 77
INLET AIR FLOW RATE (ACFM): 5535	FILTER MAX OPERATING TEMP. (^{o}F): TBD

NO. OF COMPARTMENTS: TBD	NO. OF BAGS PER COMPARTMENT: TBD	LENGTH OF BAG (IN.): TBD
DIAMETER OF BAG (IN.): TBD	DRAFT: X INDUCED/NEG. G FORCED/POS.	FILTER SURFACE AREA (FT^2): TBD
AIR TO CLOTH RATIO: TBD	FILTER MATERIAL: TBD	G WOVEN G FELTED

DESCRIBE CLEANING PROCEDURES:

X AIR PULSE G SONIC

G REVERSE FLOW G SIMPLE BAG COLLAPSE

G MECHANICAL/SHAKER G RING BAG COLLAPSE

G OTHER

DESCRIBE INCOMING AIR STREAM:

Coal rail unloading

PARTICLE SIZE DISTRIBUTION

SIZE (MICRONS)	WEIGHT % OF TOTAL	CUMULATIVE %
0-1		
1-10		
10-25		
25-50		
50-100		
>100		
	TOTAL = 100	

METHOD FOR DETERMINING WHEN TO CLEAN:

G AUTOMATIC G TIMED G MANUAL

METHOD FOR DETERMINING WHEN TO REPLACE THE BAGS:

G ALARM G INTERNAL INSPECTION G VISIBLE EMISSION G OTHER

SPECIAL CONDITIONS:

G MOISTURE BLINDING G CHEMICAL RESISTIVITY G OTHER

EXPLAIN:

DESCRIBE MAINTENANCE PROCEDURES: Regular inspections and maintenance will be performed as recommended by the manufacturer. The only particle size information is PM_{10} and $PM_{2.5}$ fractions per AP-42.

ON A SEPARATE PAGE, ATTACH A DIAGRAM SHOWING THE RELATIONSHIP OF THE CONTROL DEVICE TO ITS EMISSION SOURCE(S):

Attach Additional Sheets As Necessary

FORM C1

CONTROL DEVICE (FABRIC FILTER)

REVISED 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **C1**

CONTROL DEVICE ID NO: CD2	CONTROLS EMISSIONS FROM WHICH EMISSION SOURCE ID NO(S): COAL
EMISSION POINT (STACK) ID NO(S): E2	POSITION IN SERIES OF CONTROLS NO. 1 OF 1 UNITS
MANUFACTURER: TBD	MODEL NO: TBD
DATE MANUFACTURED: TBD	PROPOSED OPERATION DATE: Nov-13
OPERATING SCENARIO:	PROPOSED START CONSTRUCTION DATE: Mar-11
1 OF 1	P.E. SEAL REQUIRED (PER 2Q .0112)? YES

DESCRIBE CONTROL SYSTEM:

Fabric filter

POLLUTANT(S) COLLECTED:	PM	PM10	PM2.5	
BEFORE CONTROL EMISSION RATE (LB/HR):	NA	NA	NA	
CAPTURE EFFICIENCY:	100 %	100 %	100 %	%
CONTROL DEVICE EFFICIENCY:	99.9 %	99.9 %	99+ %	%
CORRESPONDING OVERALL EFFICIENCY:	99.9 %	99.9 %	99+ %	%
EFFICIENCY DETERMINATION CODE:	4	4	4	
TOTAL EMISSION RATE (LB/HR):	0.47	0.39	0.21	

PRESSURE DROP (IN. H_20): MIN: MAX: TBD GAUGE? X YES G NO WARNING ALARM? G YES X NO

BULK PARTICLE DENSITY (LB/FT^3): NA	INLET TEMPERATURE (^{o}F): MIN MA 77
POLLUTANT LOADING RATE: NA G LB/HR G GR/FT^3	OUTLET TEMPERATURE (^{o}F): MIN MA) 77
INLET AIR FLOW RATE (ACFM): 5535	FILTER MAX OPERATING TEMP. (^{o}F): TBD

NO. OF COMPARTMENTS: TBD	NO. OF BAGS PER COMPARTMENT: TBD	LENGTH OF BAG (IN.): TBD
DIAMETER OF BAG (IN.): TBD	DRAFT: X INDUCED/NEG. G FORCED/POS.	FILTER SURFACE AREA (FT^2): TBD
AIR TO CLOTH RATIO: TBD	FILTER MATERIAL: TBD	G WOVEN G FELTED

DESCRIBE CLEANING PROCEDURES:

X AIR PULSE G SONIC

G REVERSE FLOW G SIMPLE BAG COLLAPSE

G MECHANICAL/SHAKER G RING BAG COLLAPSE

G OTHER

DESCRIBE INCOMING AIR STREAM:

Coal unloading by truck

PARTICLE SIZE DISTRIBUTION

SIZE (MICRONS)	WEIGHT % OF TOTAL	CUMULATIVE %
0-1		
1-10		
10-25		
25-50		
50-100		
>100		
	TOTAL = 100	

METHOD FOR DETERMINING WHEN TO CLEAN:

G AUTOMATIC G TIMED G MANUAL

METHOD FOR DETERMINING WHEN TO REPLACE THE BAGS:

G ALARM G INTERNAL INSPECTION G VISIBLE EMISSION G OTHER

SPECIAL CONDITIONS:

G MOISTURE BLINDING G CHEMICAL RESISTIVITY G OTHER

EXPLAIN:

DESCRIBE MAINTENANCE PROCEDURES: Regular inspections and maintenance will be performed as recommended by the manufacturer. The only particle size information is PM_{10} and $PM_{2.5}$ fractions per AP-42.

ON A SEPARATE PAGE, ATTACH A DIAGRAM SHOWING THE RELATIONSHIP OF THE CONTROL DEVICE TO ITS EMISSION SOURCE(S):

Attach Additional Sheets As Necessary

FORM C1

CONTROL DEVICE (FABRIC FILTER)

REVISED 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **C1**

CONTROL DEVICE ID NO: CD3	CONTROLS EMISSIONS FROM WHICH EMISSION SOURCE ID NO(S): COAL
EMISSION POINT (STACK) ID NO(S): E3	POSITION IN SERIES OF CONTROLS NO. 1 OF 1 UNITS
MANUFACTURER: TBD	MODEL NO: TBD
DATE MANUFACTURED: TBD	PROPOSED OPERATION DATE: Nov-13
OPERATING SCENARIO:	PROPOSED START CONSTRUCTION DATE: Mar-11
1 OF 1	P.E. SEAL REQUIRED (PER 2Q .0112)? YES

DESCRIBE CONTROL SYSTEM:

Fabric filter

POLLUTANT(S) COLLECTED:	PM	PM10	PM2.5	
BEFORE CONTROL EMISSION RATE (LB/HR):	NA	NA	NA	
CAPTURE EFFICIENCY:	100 %	100 %	100 %	%
CONTROL DEVICE EFFICIENCY:	99.9 %	99.9 %	99+ %	%
CORRESPONDING OVERALL EFFICIENCY:	99.9 %	99.9 %	99+ %	%
EFFICIENCY DETERMINATION CODE:	4	4	4	
TOTAL EMISSION RATE (LB/HR):	0.58	0.49	0.26	

PRESSURE DROP (IN. H_20): MIN: MAX: TBD GAUGE? X YES G NO WARNING ALARM? G YES X NO

BULK PARTICLE DENSITY (LB/FT^3): NA	INLET TEMPERATURE (^{o}F): MIN MA 77
POLLUTANT LOADING RATE: NA G LB/HR G GR/FT^3	OUTLET TEMPERATURE (^{o}F): MIN MA) 77
INLET AIR FLOW RATE (ACFM): 6868	FILTER MAX OPERATING TEMP. (^{o}F): TBD

NO. OF COMPARTMENTS: TBD	NO. OF BAGS PER COMPARTMENT: TBD	LENGTH OF BAG (IN.): TBD
DIAMETER OF BAG (IN.): TBD	DRAFT: X INDUCED/NEG. G FORCED/POS.	FILTER SURFACE AREA (FT^2): TBD
AIR TO CLOTH RATIO: TBD	FILTER MATERIAL: TBD	G WOVEN G FELTED

DESCRIBE CLEANING PROCEDURES:

X AIR PULSE G SONIC

G REVERSE FLOW G SIMPLE BAG COLLAPSE

G MECHANICAL/SHAKER G RING BAG COLLAPSE

G OTHER

DESCRIBE INCOMING AIR STREAM:

Coal transport to storage

PARTICLE SIZE DISTRIBUTION

SIZE (MICRONS)	WEIGHT % OF TOTAL	CUMULATIVE %
0-1		
1-10		
10-25		
25-50		
50-100		
>100		
	TOTAL = 100	

METHOD FOR DETERMINING WHEN TO CLEAN:

G AUTOMATIC G TIMED G MANUAL

METHOD FOR DETERMINING WHEN TO REPLACE THE BAGS:

G ALARM G INTERNAL INSPECTION G VISIBLE EMISSION G OTHER

SPECIAL CONDITIONS:

G MOISTURE BLINDING G CHEMICAL RESISTIVITY G OTHER

EXPLAIN:

DESCRIBE MAINTENANCE PROCEDURES: Regular inspections and maintenance will be performed as recommended by the manufacturer. The only particle size information is PM_{10} and $PM_{2.5}$ fractions per AP-42.

ON A SEPARATE PAGE, ATTACH A DIAGRAM SHOWING THE RELATIONSHIP OF THE CONTROL DEVICE TO ITS EMISSION SOURCE(S):

Attach Additional Sheets As Necessary

FORM C1

CONTROL DEVICE (FABRIC FILTER)

REVISED 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **C1**

CONTROL DEVICE ID NO: CD4	CONTROLS EMISSIONS FROM WHICH EMISSION SOURCE ID NO(S): COAL
EMISSION POINT (STACK) ID NO(S): E4	POSITION IN SERIES OF CONTROLS NO. 1 OF 1 UNITS
MANUFACTURER: TBD	MODEL NO: TBD
DATE MANUFACTURED: TBD	PROPOSED OPERATION DATE: Nov-13
OPERATING SCENARIO:	PROPOSED START CONSTRUCTION DATE: Mar-11
1 OF 1	P.E. SEAL REQUIRED (PER 2Q .0112)? YES

DESCRIBE CONTROL SYSTEM:

Fabric filter

POLLUTANT(S) COLLECTED:	PM	PM10	PM2.5	
BEFORE CONTROL EMISSION RATE (LB/HR):	NA	NA	NA	
CAPTURE EFFICIENCY:	100 %	100 %	100 %	%
CONTROL DEVICE EFFICIENCY:	99.9 %	99.9 %	99+ %	%
CORRESPONDING OVERALL EFFICIENCY:	99.9 %	99.9 %	99+ %	%
EFFICIENCY DETERMINATION CODE:	4	4	4	
TOTAL EMISSION RATE (LB/HR):	0.58	0.49	0.26	

PRESSURE DROP (IN. H_20): MIN: MAX: TBD GAUGE? X YES G NO WARNING ALARM? G YES X NO

BULK PARTICLE DENSITY (LB/FT^3): NA	INLET TEMPERATURE (^{o}F): MIN MA 77
POLLUTANT LOADING RATE: NA G LB/HR G GR/FT^3	OUTLET TEMPERATURE (^{o}F): MIN MA) 77
INLET AIR FLOW RATE (ACFM): 6868	FILTER MAX OPERATING TEMP. (^{o}F): TBD

NO. OF COMPARTMENTS: TBD	NO. OF BAGS PER COMPARTMENT: TBD	LENGTH OF BAG (IN.): TBD
DIAMETER OF BAG (IN.): TBD	DRAFT: X INDUCED/NEG. G FORCED/POS.	FILTER SURFACE AREA (FT^2): TBD
AIR TO CLOTH RATIO: TBD	FILTER MATERIAL: TBD	G WOVEN G FELTED

DESCRIBE CLEANING PROCEDURES:

X AIR PULSE G SONIC

G REVERSE FLOW G SIMPLE BAG COLLAPSE

G MECHANICAL/SHAKER G RING BAG COLLAPSE

G OTHER

DESCRIBE INCOMING AIR STREAM:

Coal transport from storage

PARTICLE SIZE DISTRIBUTION

SIZE (MICRONS)	WEIGHT % OF TOTAL	CUMULATIVE %
0-1		
1-10		
10-25		
25-50		
50-100		
>100		
	TOTAL = 100	

METHOD FOR DETERMINING WHEN TO CLEAN:

G AUTOMATIC G TIMED G MANUAL

METHOD FOR DETERMINING WHEN TO REPLACE THE BAGS:

G ALARM G INTERNAL INSPECTION G VISIBLE EMISSION G OTHER

SPECIAL CONDITIONS:

G MOISTURE BLINDING G CHEMICAL RESISTIVITY G OTHER

EXPLAIN:

DESCRIBE MAINTENANCE PROCEDURES: Regular inspections and maintenance will be performed as recommended by the manufacturer. The only particle size information is PM_{10} and $PM_{2.5}$ fractions per AP-42.

ON A SEPARATE PAGE, ATTACH A DIAGRAM SHOWING THE RELATIONSHIP OF THE CONTROL DEVICE TO ITS EMISSION SOURCE(S):

Attach Additional Sheets As Necessary

FORM C1

CONTROL DEVICE (FABRIC FILTER)

REVISED 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **C1**

CONTROL DEVICE ID NO: CD14	CONTROLS EMISSIONS FROM WHICH EMISSION SOURCE ID NO(S): COAL
EMISSION POINT (STACK) ID NO(S): E14	POSITION IN SERIES OF CONTROLS NO. 1 OF 1 UNITS
MANUFACTURER: TBD	MODEL NO: TBD
DATE MANUFACTURED: TBD	PROPOSED OPERATION DATE: Nov-13
OPERATING SCENARIO:	PROPOSED START CONSTRUCTION DATE: Mar-11
1 OF 1	P.E. SEAL REQUIRED (PER 2Q .0112)? YES

DESCRIBE CONTROL SYSTEM:

Fabric filter

POLLUTANT(S) COLLECTED:	PM	PM10	PM2.5	
BEFORE CONTROL EMISSION RATE (LB/HR):	NA	NA	NA	
CAPTURE EFFICIENCY:	100 %	100 %	100 %	%
CONTROL DEVICE EFFICIENCY:	99.9 %	99.9 %	99+ %	%
CORRESPONDING OVERALL EFFICIENCY:	99.9 %	99.9 %	99+ %	%
EFFICIENCY DETERMINATION CODE:	4	4	4	
TOTAL EMISSION RATE (LB/HR):	0.13	0.11	0.06	

PRESSURE DROP (IN. H_20): MIN: MAX: TBD GAUGE? X YES G NO WARNING ALARM? G YES X NO

BULK PARTICLE DENSITY (LB/FT^3): NA	INLET TEMPERATURE (^{o}F): MIN MA 90
POLLUTANT LOADING RATE: NA G LB/HR G GR/FT^3	OUTLET TEMPERATURE (^{o}F): MIN MA 90
INLET AIR FLOW RATE (ACFM): 1540	FILTER MAX OPERATING TEMP. (^{o}F): TBD

NO. OF COMPARTMENTS: TBD	NO. OF BAGS PER COMPARTMENT: TBD	LENGTH OF BAG (IN.): TBD
DIAMETER OF BAG (IN.): TBD	DRAFT: X INDUCED/NEG. G FORCED/POS.	FILTER SURFACE AREA (FT^2): TBD
AIR TO CLOTH RATIO: TBD	FILTER MATERIAL: TBD	G WOVEN G FELTED

DESCRIBE CLEANING PROCEDURES:

X AIR PULSE G SONIC

G REVERSE FLOW G SIMPLE BAG COLLAPSE

G MECHANICAL/SHAKER G RING BAG COLLAPSE

G OTHER

DESCRIBE INCOMING AIR STREAM:

Coal mill feed bin

PARTICLE SIZE DISTRIBUTION

SIZE (MICRONS)	WEIGHT % OF TOTAL	CUMULATIVE %
0-1		
1-10		
10-25		
25-50		
50-100		
>100		
	TOTAL = 100	

METHOD FOR DETERMINING WHEN TO CLEAN:

G AUTOMATIC G TIMED G MANUAL

METHOD FOR DETERMINING WHEN TO REPLACE THE BAGS:

G ALARM G INTERNAL INSPECTION G VISIBLE EMISSION G OTHER

SPECIAL CONDITIONS:

G MOISTURE BLINDING G CHEMICAL RESISTIVITY G OTHER

EXPLAIN:

DESCRIBE MAINTENANCE PROCEDURES: Regular inspections and maintenance will be performed as recommended by the manufacturer. The only particle size information is PM_{10} and $PM_{2.5}$ fractions per AP-42.

ON A SEPARATE PAGE, ATTACH A DIAGRAM SHOWING THE RELATIONSHIP OF THE CONTROL DEVICE TO ITS EMISSION SOURCE(S):

Attach Additional Sheets As Necessary

FORM C1

CONTROL DEVICE (FABRIC FILTER)

REVISED 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **C1**

CONTROL DEVICE ID NO: CD15	CONTROLS EMISSIONS FROM WHICH EMISSION SOURCE ID NO(S): COAL
EMISSION POINT (STACK) ID NO(S): E15	POSITION IN SERIES OF CONTROLS NO. 1 OF 1 UNITS
MANUFACTURER: TBD	MODEL NO: TBD
DATE MANUFACTURED: TBD	PROPOSED OPERATION DATE: Nov-13
OPERATING SCENARIO:	PROPOSED START CONSTRUCTION DATE: Mar-11
1 OF 1	P.E. SEAL REQUIRED (PER 2Q .0112)? YES

DESCRIBE CONTROL SYSTEM:

Fabric filter

POLLUTANT(S) COLLECTED:	PM	PM10	PM2.5	
BEFORE CONTROL EMISSION RATE (LB/HR):	NA	NA	NA	
CAPTURE EFFICIENCY:	100 %	100 %	100 %	%
CONTROL DEVICE EFFICIENCY:	99.9 %	99.9 %	99+ %	%
CORRESPONDING OVERALL EFFICIENCY:	99.9 %	99.9 %	99+ %	%
EFFICIENCY DETERMINATION CODE:	4	4	4	
TOTAL EMISSION RATE (LB/HR):	0.13	0.11	0.06	

PRESSURE DROP (IN. H_20): MIN: MAX: TBD GAUGE? X YES G NO	WARNING ALARM? G YES X NO
BULK PARTICLE DENSITY (LB/FT^3): NA	INLET TEMPERATURE (^oF): MIN MA 90
POLLUTANT LOADING RATE: NA G LB/HR G GR/FT^3	OUTLET TEMPERATURE (^oF): MIN MA 90
INLET AIR FLOW RATE (ACFM): 1540	FILTER MAX OPERATING TEMP. (^oF): TBD

NO. OF COMPARTMENTS: TBD	NO. OF BAGS PER COMPARTMENT: TBD	LENGTH OF BAG (IN.): TBD
DIAMETER OF BAG (IN.): TBD	DRAFT: X INDUCED/NEG. G FORCED/POS.	FILTER SURFACE AREA (FT^2): TBD
AIR TO CLOTH RATIO: TBD	FILTER MATERIAL: TBD	G WOVEN G FELTED

DESCRIBE CLEANING PROCEDURES:

X AIR PULSE G SONIC

G REVERSE FLOW G SIMPLE BAG COLLAPSE

G MECHANICAL/SHAKER G RING BAG COLLAPSE

G OTHER

DESCRIBE INCOMING AIR STREAM:

Coal mill feed bin

PARTICLE SIZE DISTRIBUTION

SIZE (MICRONS)	WEIGHT % OF TOTAL	CUMULATIVE %
0-1		
1-10		
10-25		
25-50		
50-100		
>100		
	TOTAL = 100	

METHOD FOR DETERMINING WHEN TO CLEAN:

G AUTOMATIC G TIMED G MANUAL

METHOD FOR DETERMINING WHEN TO REPLACE THE BAGS:

G ALARM G INTERNAL INSPECTION G VISIBLE EMISSION G OTHER

SPECIAL CONDITIONS:

G MOISTURE BLINDING G CHEMICAL RESISTIVITY G OTHER

EXPLAIN:

DESCRIBE MAINTENANCE PROCEDURES: Regular inspections and maintenance will be performed as recommended by the manufacturer. The only particle size information is PM_{10} and $PM_{2.5}$ fractions per AP-42.

ON A SEPARATE PAGE, ATTACH A DIAGRAM SHOWING THE RELATIONSHIP OF THE CONTROL DEVICE TO ITS EMISSION SOURCE(S):

Attach Additional Sheets As Necessary

FORM C1

CONTROL DEVICE (FABRIC FILTER)

REVISED 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **C1**

CONTROL DEVICE ID NO: CD16	CONTROLS EMISSIONS FROM WHICH EMISSION SOURCE ID NO(S): COAL
EMISSION POINT (STACK) ID NO(S): E16	POSITION IN SERIES OF CONTROLS NO. 1 OF 1 UNITS
MANUFACTURER: TBD	MODEL NO: TBD
DATE MANUFACTURED: TBD	PROPOSED OPERATION DATE: Nov-13
OPERATING SCENARIO:	PROPOSED START CONSTRUCTION DATE: Mar-11
1 OF 1	P.E. SEAL REQUIRED (PER 2Q .0112)? YES

DESCRIBE CONTROL SYSTEM:

Fabric filter

POLLUTANT(S) COLLECTED:	PM	PM10	PM2.5	
BEFORE CONTROL EMISSION RATE (LB/HR):	NA	NA	NA	
CAPTURE EFFICIENCY:	100 %	100 %	100 %	%
CONTROL DEVICE EFFICIENCY:	99.9 %	99.9 %	99+ %	%
CORRESPONDING OVERALL EFFICIENCY:	99.9 %	99.9 %	99+ %	%
EFFICIENCY DETERMINATION CODE:	4	4	4	
TOTAL EMISSION RATE (LB/HR):	0.50	0.42	0.23	

PRESSURE DROP (IN. H_20): MIN: MAX: TBD GAUGE? X YES G NO WARNING ALARM? G YES X NO

BULK PARTICLE DENSITY (LB/FT^3): NA	INLET TEMPERATURE (^{o}F): MIN MA 90
POLLUTANT LOADING RATE: NA G LB/HR G GR/FT^3	OUTLET TEMPERATURE (^{o}F): MIN MA) 90
INLET AIR FLOW RATE (ACFM): 6100	FILTER MAX OPERATING TEMP. (^{o}F): TBD

NO. OF COMPARTMENTS: TBD	NO. OF BAGS PER COMPARTMENT: TBD	LENGTH OF BAG (IN.): TBD
DIAMETER OF BAG (IN.): TBD	DRAFT: X INDUCED/NEG. G FORCED/POS.	FILTER SURFACE AREA (FT^2): TBD
AIR TO CLOTH RATIO: TBD	FILTER MATERIAL: TBD	G WOVEN G FELTED

DESCRIBE CLEANING PROCEDURES:

X AIR PULSE G SONIC

G REVERSE FLOW G SIMPLE BAG COLLAPSE

G MECHANICAL/SHAKER G RING BAG COLLAPSE

G OTHER

DESCRIBE INCOMING AIR STREAM:

Coal mill feed transport

PARTICLE SIZE DISTRIBUTION

SIZE (MICRONS)	WEIGHT % OF TOTAL	CUMULATIVE %
0-1		
1-10		
10-25		
25-50		
50-100		
>100		
	TOTAL = 100	

METHOD FOR DETERMINING WHEN TO CLEAN:

G AUTOMATIC G TIMED G MANUAL

METHOD FOR DETERMINING WHEN TO REPLACE THE BAGS:

G ALARM G INTERNAL INSPECTION G VISIBLE EMISSION G OTHER

SPECIAL CONDITIONS:

G MOISTURE BLINDING G CHEMICAL RESISTIVITY G OTHER

EXPLAIN:

DESCRIBE MAINTENANCE PROCEDURES: Regular inspections and maintenance will be performed as recommended by the manufacturer. The only particle size information is PM_{10} and $PM_{2.5}$ fractions per AP-42.

ON A SEPARATE PAGE, ATTACH A DIAGRAM SHOWING THE RELATIONSHIP OF THE CONTROL DEVICE TO ITS EMISSION SOURCE(S):

Attach Additional Sheets As Necessary

FORM C1

CONTROL DEVICE (FABRIC FILTER)

REVISED 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **C1**

CONTROL DEVICE ID NO: CD17	CONTROLS EMISSIONS FROM WHICH EMISSION SOURCE ID NO(S): COAL
EMISSION POINT (STACK) ID NO(S): E17	POSITION IN SERIES OF CONTROLS NO. 1 OF 1 UNITS
MANUFACTURER: TBD	MODEL NO: TBD
DATE MANUFACTURED: TBD	PROPOSED OPERATION DATE: Nov-13
OPERATING SCENARIO:	PROPOSED START CONSTRUCTION DATE: Mar-11
1 OF 1	P.E. SEAL REQUIRED (PER 2Q .0112)? YES

DESCRIBE CONTROL SYSTEM:

Fabric filter

POLLUTANT(S) COLLECTED:	PM	PM10	PM2.5	
BEFORE CONTROL EMISSION RATE (LB/HR):	NA	NA	NA	
CAPTURE EFFICIENCY:	100 %	100 %	100 %	%
CONTROL DEVICE EFFICIENCY:	99.9 %	99.9 %	99+ %	%
CORRESPONDING OVERALL EFFICIENCY:	99.9 %	99.9 %	99+ %	%
EFFICIENCY DETERMINATION CODE:	4	4	4	
TOTAL EMISSION RATE (LB/HR):	0.01	0.01	0.01	

PRESSURE DROP (IN. H_20): MIN: MAX: TBD GAUGE? X YES G NO WARNING ALARM? G YES X NO

BULK PARTICLE DENSITY (LB/FT^3): NA	INLET TEMPERATURE (^{o}F): MIN MA 140
POLLUTANT LOADING RATE: NA G LB/HR G GR/FT^3	OUTLET TEMPERATURE (^{o}F): MIN MA 140
INLET AIR FLOW RATE (ACFM): 175	FILTER MAX OPERATING TEMP. (^{o}F): TBD

NO. OF COMPARTMENTS: TBD	NO. OF BAGS PER COMPARTMENT: TBD	LENGTH OF BAG (IN.): TBD
DIAMETER OF BAG (IN.): TBD	DRAFT: X INDUCED/NEG. G FORCED/POS.	FILTER SURFACE AREA (FT^2): TBD
AIR TO CLOTH RATIO: TBD	FILTER MATERIAL: TBD	G WOVEN G FELTED

DESCRIBE CLEANING PROCEDURES:

X AIR PULSE G SONIC

G REVERSE FLOW G SIMPLE BAG COLLAPSE

G MECHANICAL/SHAKER G RING BAG COLLAPSE

G OTHER

DESCRIBE INCOMING AIR STREAM:

Fine coal bin

PARTICLE SIZE DISTRIBUTION

SIZE (MICRONS)	WEIGHT % OF TOTAL	CUMULATIVE %
0-1		
1-10		
10-25		
25-50		
50-100		
>100		
	TOTAL = 100	

METHOD FOR DETERMINING WHEN TO CLEAN:

G AUTOMATIC G TIMED G MANUAL

METHOD FOR DETERMINING WHEN TO REPLACE THE BAGS:

G ALARM G INTERNAL INSPECTION G VISIBLE EMISSION G OTHER

SPECIAL CONDITIONS:

G MOISTURE BLINDING G CHEMICAL RESISTIVITY G OTHER

EXPLAIN:

DESCRIBE MAINTENANCE PROCEDURES: Regular inspections and maintenance will be performed as recommended by the manufacturer. The only particle size information is PM_{10} and $PM_{2.5}$ fractions per AP-42.

ON A SEPARATE PAGE, ATTACH A DIAGRAM SHOWING THE RELATIONSHIP OF THE CONTROL DEVICE TO ITS EMISSION SOURCE(S):

Attach Additional Sheets As Necessary

FORM C1

CONTROL DEVICE (FABRIC FILTER)

REVISED 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **C1**

CONTROL DEVICE ID NO: CD18	CONTROLS EMISSIONS FROM WHICH EMISSION SOURCE ID NO(S): COAL
EMISSION POINT (STACK) ID NO(S): E18	POSITION IN SERIES OF CONTROLS NO. 1 OF 1 UNITS
MANUFACTURER: TBD	MODEL NO: TBD
DATE MANUFACTURED: TBD	PROPOSED OPERATION DATE: Nov-13
OPERATING SCENARIO:	PROPOSED START CONSTRUCTION DATE: Mar-11
1 OF 1	P.E. SEAL REQUIRED (PER 2Q .0112)? YES

DESCRIBE CONTROL SYSTEM:

Fabric filter

POLLUTANT(S) COLLECTED:	PM	PM10	PM2.5	
BEFORE CONTROL EMISSION RATE (LB/HR):	NA	NA	NA	
CAPTURE EFFICIENCY:	100 %	100 %	100 %	%
CONTROL DEVICE EFFICIENCY:	99.9 %	99.9 %	99+ %	%
CORRESPONDING OVERALL EFFICIENCY:	99.9 %	99.9 %	99+ %	%
EFFICIENCY DETERMINATION CODE:	4	4	4	
TOTAL EMISSION RATE (LB/HR):	0.01	0.01	0.01	

PRESSURE DROP (IN. H_20): MIN: MAX: TBD GAUGE? X YES G NO WARNING ALARM? G YES X NO

BULK PARTICLE DENSITY (LB/FT^3): NA	INLET TEMPERATURE (^{o}F): MIN MA 140
POLLUTANT LOADING RATE: NA G LB/HR G GR/FT^3	OUTLET TEMPERATURE (^{o}F): MIN MA 140
INLET AIR FLOW RATE (ACFM): 175	FILTER MAX OPERATING TEMP. (^{o}F): TBD

NO. OF COMPARTMENTS: TBD	NO. OF BAGS PER COMPARTMENT: TBD	LENGTH OF BAG (IN.): TBD
DIAMETER OF BAG (IN.): TBD	DRAFT: X INDUCED/NEG. G FORCED/POS.	FILTER SURFACE AREA (FT^2): TBD
AIR TO CLOTH RATIO: TBD	FILTER MATERIAL: TBD	G WOVEN G FELTED

DESCRIBE CLEANING PROCEDURES:

X AIR PULSE G SONIC

G REVERSE FLOW G SIMPLE BAG COLLAPSE

G MECHANICAL/SHAKER G RING BAG COLLAPSE

G OTHER

DESCRIBE INCOMING AIR STREAM:

Fine coal bin

PARTICLE SIZE DISTRIBUTION

SIZE (MICRONS)	WEIGHT % OF TOTAL	CUMULATIVE %
0-1		
1-10		
10-25		
25-50		
50-100		
>100		
	TOTAL = 100	

METHOD FOR DETERMINING WHEN TO CLEAN:

G AUTOMATIC G TIMED G MANUAL

METHOD FOR DETERMINING WHEN TO REPLACE THE BAGS:

G ALARM G INTERNAL INSPECTION G VISIBLE EMISSION G OTHER

SPECIAL CONDITIONS:

G MOISTURE BLINDING G CHEMICAL RESISTIVITY G OTHER

EXPLAIN:

DESCRIBE MAINTENANCE PROCEDURES: Regular inspections and maintenance will be performed as recommended by the manufacturer. The only particle size information is PM_{10} and $PM_{2.5}$ fractions per AP-42.

ON A SEPARATE PAGE, ATTACH A DIAGRAM SHOWING THE RELATIONSHIP OF THE CONTROL DEVICE TO ITS EMISSION SOURCE(S):

Attach Additional Sheets As Necessary

FORM C1

CONTROL DEVICE (FABRIC FILTER)

REVISED 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **C1**

CONTROL DEVICE ID NO: CD44A,B,C	CONTROLS EMISSIONS FROM WHICH EMISSION SOURCE ID NO(S): KS
EMISSION POINT (STACK) ID NO(S): E44	POSITION IN SERIES OF CONTROl (Refers to kiln FF) NO. 2 OF 4 UNITS
MANUFACTURER: TBD	MODEL NO: TBD
DATE MANUFACTURED: TBD	PROPOSED OPERATION DATE: Nov-13
OPERATING SCENARIO:	PROPOSED START CONSTRUCTION DATE: Mar-11
1 OF 1	P.E. SEAL REQUIRED (PER 2Q .0112)? YES

DESCRIBE CONTROL SYSTEM:

Fabric filters for kiln system: A (kiln, in-line raw mill, and clinker cooler), B (coal mill), and C (preheater bypass) operating in parallel. The combined exhaust from these filters is vented through the ACI filter and wet scrubber to the main kiln stack.

Emissions include an estimate of condensible PM. Air flow data below reflect combined outlet flow conditions at main stack.

POLLUTANT(S) COLLECTED:	PM	PM10	PM2.5	
BEFORE CONTROL EMISSION RATE (LB/HR):	NA	NA	NA	
CAPTURE EFFICIENCY:	100 %	100 %	100 %	%
CONTROL DEVICE EFFICIENCY:	99.9 %	99.9 %	99+ %	%
CORRESPONDING OVERALL EFFICIENCY:	99.9 %	99.9 %	99+ %	%
EFFICIENCY DETERMINATION CODE:	4	4	4	
TOTAL EMISSION RATE (LB/HR):	23.78	23.78	23.78	

PRESSURE DROP (IN. H_20): MIN: MAX: TBD GAUGE? X YES G NO WARNING ALARM? G YES X NO

BULK PARTICLE DENSITY (LB/FT^3): NA	INLET TEMPERATURE (^{o}F): MIN 193 MAX 435
POLLUTANT LOADING RATE: NA G LB/HR G GR/FT^3	OUTLET TEMPERATURE (^{o}F): MIN 193 MAX 435
INLET AIR FLOW RATE (ACFM): 688,771 @ 123 F (Mill On)	FILTER MAX OPERATING TEMP. (^{o}F): TBD

NO. OF COMPARTMENTS: TBD	NO. OF BAGS PER COMPARTMENT: TBD	LENGTH OF BAG (IN.): TBD
DIAMETER OF BAG (IN.): TBD	DRAFT: X INDUCED/NEG. G FORCED/POS.	FILTER SURFACE AREA (FT^2): TBD
AIR TO CLOTH RATIO: TBD	FILTER MATERIAL: Membrane bags	G WOVEN G FELTED

DESCRIBE CLEANING PROCEDURES:

X AIR PULSE G SONIC
G REVERSE FLOW G SIMPLE BAG COLLAPSE
G MECHANICAL/SHAKER G RING BAG COLLAPSE
G OTHER

PARTICLE SIZE DISTRIBUTION

SIZE (MICRONS)	WEIGHT % OF TOTAL	CUMULATIVE %
0-1		
1-10		
10-25		
25-50		
50-100		
>100		
	TOTAL = 100	

DESCRIBE INCOMING AIR STREAM:

1) Kiln with in-line raw mill and clinker cooler (CD44A) (~640,000 acfm @ 220 F)
2) Coal mill exhaust (CD44B) (~30,000 acfm @ 180 F)
2) Preheater bypass (CD44C) (~73,000 acfm @ 272 F)

METHOD FOR DETERMINING WHEN TO CLEAN:

G AUTOMATIC G TIMED G MANUAL

METHOD FOR DETERMINING WHEN TO REPLACE THE BAGS:

G ALARM G INTERNAL INSPECTION G VISIBLE EMISSION G OTHER

SPECIAL CONDITIONS:

G MOISTURE BLINDING G CHEMICAL RESISTIVITY G OTHER

EXPLAIN:

DESCRIBE MAINTENANCE PROCEDURES: Regular inspections and maintenance will be performed as recommended by the manufacturer. The units will be included in an O&M plan required pursuant to 40 CFR 63.1347, including cleaning method and bag replacement schedule. No particle size information; assume outlet PM = PM10 = PM2.5.

ON A SEPARATE PAGE, ATTACH A DIAGRAM SHOWING THE RELATIONSHIP OF THE CONTROL DEVICE TO ITS EMISSION SOURCE(S):

Attach Additional Sheets As Necessary

FORM C1

CONTROL DEVICE (FABRIC FILTER)

REVISED 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **C1**

CONTROL DEVICE ID NO: CD44D	CONTROLS EMISSIONS FROM WHICH EMISSION SOURCE ID NO(S): KS
EMISSION POINT (STACK) ID NO(S): E44	POSITION IN SERIES OF CONTROL (Refers to kiln FF) NO. 3 OF 4 UNITS
MANUFACTURER: TBD	MODEL NO: TBD
DATE MANUFACTURED: TBD	PROPOSED OPERATION DATE: Nov-13
OPERATING SCENARIO:	PROPOSED START CONSTRUCTION DATE: Mar-11
1 OF 1	P.E. SEAL REQUIRED (PER 2Q .0112)? YES

DESCRIBE CONTROL SYSTEM:

Activated carbon is injected into the combined kiln system exhaust and collected in the ACI fabric filter. The system is designed for mercury control; other pollutants may also be incidentally removed. The exhaust is vented through the wet scrubber to the main kiln stack.

Emissions include an estimate of condensible PM. Air flow data below reflect combined outlet flow conditions at main stack.

POLLUTANT(S) COLLECTED:	Hg			
BEFORE CONTROL EMISSION RATE (LB/HR):	0.0373			
CAPTURE EFFICIENCY:	100 %	%	%	%
CONTROL DEVICE EFFICIENCY:	85.9 %	%	%	%
CORRESPONDING OVERALL EFFICIENCY:	85.9 %	%	%	%
EFFICIENCY DETERMINATION CODE:	4			
TOTAL EMISSION RATE (LB/HR):	0.0053	(30 day average rates shown)		

PRESSURE DROP (IN. H_20): MIN: MAX: TBD GAUGE? X YES G NO WARNING ALARM? G YES X NO

BULK PARTICLE DENSITY (LB/FT^3): NA	INLET TEMPERATURE (^{o}F): MIN 193 MAX 435
POLLUTANT LOADING RATE: NA G LB/HR G GR/FT^3	OUTLET TEMPERATURE (^{o}F): MIN 193 MAX 435
INLET AIR FLOW RATE (ACFM): 688,771 @ 123 F (Mill On)	FILTER MAX OPERATING TEMP. (^{o}F): TBD

NO. OF COMPARTMENTS: TBD	NO. OF BAGS PER COMPARTMENT: TBD	LENGTH OF BAG (IN.): TBD
DIAMETER OF BAG (IN.): TBD	DRAFT: X INDUCED/NEG. G FORCED/POS.	FILTER SURFACE AREA (FT^2): TBD
AIR TO CLOTH RATIO: TBD	FILTER MATERIAL: TBD	G WOVEN G FELTED

DESCRIBE CLEANING PROCEDURES:

X AIR PULSE G SONIC
G REVERSE FLOW G SIMPLE BAG COLLAPSE
G MECHANICAL/SHAKER G RING BAG COLLAPSE
G OTHER

DESCRIBE INCOMING AIR STREAM:

Combined exhaust from kiln/raw mill/clinker cooler, coal mill, & bypass (~640,000 acfm @ 220 F)

PARTICLE SIZE DISTRIBUTION

SIZE (MICRONS)	WEIGHT % OF TOTAL	CUMULATIVE %
0-1		
1-10		
10-25		
25-50		
50-100		
>100		
	TOTAL = 100	

METHOD FOR DETERMINING WHEN TO CLEAN:

G AUTOMATIC G TIMED G MANUAL

METHOD FOR DETERMINING WHEN TO REPLACE THE BAGS:

G ALARM G INTERNAL INSPECTION G VISIBLE EMISSION G OTHER

SPECIAL CONDITIONS:

G MOISTURE BLINDING G CHEMICAL RESISTIVITY G OTHER

EXPLAIN:

DESCRIBE MAINTENANCE PROCEDURES: Regular inspections and maintenance will be performed as recommended by the manufacturer. The units will be included in an O&M plan required pursuant to 40 CFR 63.1347, including cleaning method and bag replacement schedule. No particle size information; assume outlet PM = PM10 = PM2.5.

ON A SEPARATE PAGE, ATTACH A DIAGRAM SHOWING THE RELATIONSHIP OF THE CONTROL DEVICE TO ITS EMISSION SOURCE(S):

Attach Additional Sheets As Necessary

FORM C1

CONTROL DEVICE (FABRIC FILTER)

REVISED 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **C1**

CONTROL DEVICE ID NO: CD19	CONTROLS EMISSIONS FROM WHICH EMISSION SOURCE ID NO(S): CHS
EMISSION POINT (STACK) ID NO(S): E19	POSITION IN SERIES OF CONTROLS NO. 1 OF 1 UNITS
MANUFACTURER: TBD	MODEL NO: TBD
DATE MANUFACTURED: TBD	PROPOSED OPERATION DATE: Nov-13
OPERATING SCENARIO:	PROPOSED START CONSTRUCTION DATE: Mar-11
1 OF 1	P.E. SEAL REQUIRED (PER 2Q .0112)? YES

DESCRIBE CONTROL SYSTEM:

Fabric filter

POLLUTANT(S) COLLECTED:	PM	PM10	PM2.5	
BEFORE CONTROL EMISSION RATE (LB/HR):	NA	NA	NA	
CAPTURE EFFICIENCY:	100 %	100 %	100 %	%
CONTROL DEVICE EFFICIENCY:	99.9 %	99.9 %	99+ %	%
CORRESPONDING OVERALL EFFICIENCY:	99.9 %	99.9 %	99+ %	%
EFFICIENCY DETERMINATION CODE:	4	4	4	
TOTAL EMISSION RATE (LB/HR):	0.29	0.24	0.13	

PRESSURE DROP (IN. H_20): MIN: MAX: TBD GAUGE? X YES G NO WARNING ALARM? G YES X NO

BULK PARTICLE DENSITY (LB/FT^3): NA	INLET TEMPERATURE (^{o}F): MIN MA 257
POLLUTANT LOADING RATE: NA G LB/HR G GR/FT^3	OUTLET TEMPERATURE (^{o}F): MIN MA 257
INLET AIR FLOW RATE (ACFM): 4600	FILTER MAX OPERATING TEMP. (^{o}F): TBD

NO. OF COMPARTMENTS: TBD	NO. OF BAGS PER COMPARTMENT: TBD	LENGTH OF BAG (IN.): TBD
DIAMETER OF BAG (IN.): TBD	DRAFT: X INDUCED/NEG. G FORCED/POS.	FILTER SURFACE AREA (FT^2): TBD
AIR TO CLOTH RATIO: TBD	FILTER MATERIAL: TBD	G WOVEN G FELTED

DESCRIBE CLEANING PROCEDURES:

X AIR PULSE G SONIC
G REVERSE FLOW G SIMPLE BAG COLLAPSE
G MECHANICAL/SHAKER G RING BAG COLLAPSE
G OTHER

DESCRIBE INCOMING AIR STREAM:

Clinker discharge from cooler

PARTICLE SIZE DISTRIBUTION

SIZE (MICRONS)	WEIGHT % OF TOTAL	CUMULATIVE %
0-1		
1-10		
10-25		
25-50		
50-100		
>100		
	TOTAL = 100	

METHOD FOR DETERMINING WHEN TO CLEAN:

G AUTOMATIC G TIMED G MANUAL

METHOD FOR DETERMINING WHEN TO REPLACE THE BAGS:

G ALARM G INTERNAL INSPECTION G VISIBLE EMISSION G OTHER

SPECIAL CONDITIONS:

G MOISTURE BLINDING G CHEMICAL RESISTIVITY G OTHER

EXPLAIN:

DESCRIBE MAINTENANCE PROCEDURES: Regular inspections and maintenance will be performed as recommended by the manufacturer. The only particle size information is PM_{10} and $PM_{2.5}$ fractions per AP-42.

ON A SEPARATE PAGE, ATTACH A DIAGRAM SHOWING THE RELATIONSHIP OF THE CONTROL DEVICE TO ITS EMISSION SOURCE(S):

Attach Additional Sheets As Necessary

FORM C1

CONTROL DEVICE (FABRIC FILTER)

REVISED 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **C1**

CONTROL DEVICE ID NO: CD20	CONTROLS EMISSIONS FROM WHICH EMISSION SOURCE ID NO(S): CHS
EMISSION POINT (STACK) ID NO(S): E20	POSITION IN SERIES OF CONTROLS NO. 1 OF 1 UNITS
MANUFACTURER: TBD	MODEL NO: TBD
DATE MANUFACTURED: TBD	PROPOSED OPERATION DATE: Nov-13
OPERATING SCENARIO:	PROPOSED START CONSTRUCTION DATE: Mar-11
1 OF 1	P.E. SEAL REQUIRED (PER 2Q .0112)? YES

DESCRIBE CONTROL SYSTEM:

Fabric filter

POLLUTANT(S) COLLECTED:	PM	PM10	PM2.5	
BEFORE CONTROL EMISSION RATE (LB/HR):	NA	NA	NA	
CAPTURE EFFICIENCY:	100 %	100 %	100 %	%
CONTROL DEVICE EFFICIENCY:	99.9 %	99.9 %	99+ %	%
CORRESPONDING OVERALL EFFICIENCY:	99.9 %	99.9 %	99+ %	%
EFFICIENCY DETERMINATION CODE:	4	4	4	
TOTAL EMISSION RATE (LB/HR):	0.23	0.19	0.10	

PRESSURE DROP (IN. H_20): MIN: MAX: TBD GAUGE? X YES G NO	WARNING ALARM? G YES X NO
BULK PARTICLE DENSITY (LB/FT^3): NA	INLET TEMPERATURE (^oF): MIN MA 257
POLLUTANT LOADING RATE: NA G LB/HR G GR/FT^3	OUTLET TEMPERATURE (^oF): MIN MA 257
INLET AIR FLOW RATE (ACFM): 3672	FILTER MAX OPERATING TEMP. (^oF): TBD

NO. OF COMPARTMENTS: TBD	NO. OF BAGS PER COMPARTMENT: TBD	LENGTH OF BAG (IN.): TBD
DIAMETER OF BAG (IN.): TBD	DRAFT: X INDUCED/NEG. G FORCED/POS.	FILTER SURFACE AREA (FT^2): TBD
AIR TO CLOTH RATIO: TBD	FILTER MATERIAL: TBD	G WOVEN G FELTED

DESCRIBE CLEANING PROCEDURES:

X AIR PULSE G SONIC

G REVERSE FLOW G SIMPLE BAG COLLAPSE

G MECHANICAL/SHAKER G RING BAG COLLAPSE

G OTHER

DESCRIBE INCOMING AIR STREAM:

Clinker dome

PARTICLE SIZE DISTRIBUTION

SIZE (MICRONS)	WEIGHT % OF TOTAL	CUMULATIVE %
0-1		
1-10		
10-25		
25-50		
50-100		
>100		
	TOTAL = 100	

METHOD FOR DETERMINING WHEN TO CLEAN:

G AUTOMATIC G TIMED G MANUAL

METHOD FOR DETERMINING WHEN TO REPLACE THE BAGS:

G ALARM G INTERNAL INSPECTION G VISIBLE EMISSION G OTHER

SPECIAL CONDITIONS:

G MOISTURE BLINDING G CHEMICAL RESISTIVITY G OTHER

EXPLAIN:

DESCRIBE MAINTENANCE PROCEDURES: Regular inspections and maintenance will be performed as recommended by the manufacturer. The only particle size information is PM_{10} and $PM_{2.5}$ fractions per AP-42.

ON A SEPARATE PAGE, ATTACH A DIAGRAM SHOWING THE RELATIONSHIP OF THE CONTROL DEVICE TO ITS EMISSION SOURCE(S):

Attach Additional Sheets As Necessary

FORM C1

CONTROL DEVICE (FABRIC FILTER)

REVISED 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **C1**

CONTROL DEVICE ID NO: CD21	CONTROLS EMISSIONS FROM WHICH EMISSION SOURCE ID NO(S): CHS
EMISSION POINT (STACK) ID NO(S): E21	POSITION IN SERIES OF CONTROLS NO. 1 OF 1 UNITS
MANUFACTURER: TBD	MODEL NO: TBD
DATE MANUFACTURED: TBD	PROPOSED OPERATION DATE: Nov-13
OPERATING SCENARIO:	PROPOSED START CONSTRUCTION DATE: Mar-11
1 OF 1	P.E. SEAL REQUIRED (PER 2Q .0112)? YES

DESCRIBE CONTROL SYSTEM:

Fabric filter

POLLUTANT(S) COLLECTED:	PM	PM10	PM2.5	
BEFORE CONTROL EMISSION RATE (LB/HR):	NA	NA	NA	
CAPTURE EFFICIENCY:	100 %	100 %	100 %	%
CONTROL DEVICE EFFICIENCY:	99.9 %	99.9 %	99+ %	%
CORRESPONDING OVERALL EFFICIENCY:	99.9 %	99.9 %	99+ %	%
EFFICIENCY DETERMINATION CODE:	4	4	4	
TOTAL EMISSION RATE (LB/HR):	0.14	0.12	0.06	

PRESSURE DROP (IN. H_20): MIN: MAX: TBD GAUGE? X YES G NO	WARNING ALARM? G YES X NO
BULK PARTICLE DENSITY (LB/FT^3): NA	INLET TEMPERATURE (^oF): MIN MA 257
POLLUTANT LOADING RATE: NA G LB/HR G GR/FT^3	OUTLET TEMPERATURE (^oF): MIN MA 257
INLET AIR FLOW RATE (ACFM): 2260	FILTER MAX OPERATING TEMP. (^oF): TBD

NO. OF COMPARTMENTS: TBD	NO. OF BAGS PER COMPARTMENT: TBD	LENGTH OF BAG (IN.): TBD
DIAMETER OF BAG (IN.): TBD	DRAFT: X INDUCED/NEG. G FORCED/POS.	FILTER SURFACE AREA (FT^2): TBD
AIR TO CLOTH RATIO: TBD	FILTER MATERIAL: TBD	G WOVEN G FELTED

DESCRIBE CLEANING PROCEDURES:

X AIR PULSE G SONIC

G REVERSE FLOW G SIMPLE BAG COLLAPSE

G MECHANICAL/SHAKER G RING BAG COLLAPSE

G OTHER

DESCRIBE INCOMING AIR STREAM:

Off-spec bin

PARTICLE SIZE DISTRIBUTION

SIZE (MICRONS)	WEIGHT % OF TOTAL	CUMULATIVE %
0-1		
1-10		
10-25		
25-50		
50-100		
>100		
	TOTAL = 100	

METHOD FOR DETERMINING WHEN TO CLEAN:

G AUTOMATIC G TIMED G MANUAL

METHOD FOR DETERMINING WHEN TO REPLACE THE BAGS:

G ALARM G INTERNAL INSPECTION G VISIBLE EMISSION G OTHER

SPECIAL CONDITIONS:

G MOISTURE BLINDING G CHEMICAL RESISTIVITY G OTHER

EXPLAIN:

DESCRIBE MAINTENANCE PROCEDURES: Regular inspections and maintenance will be performed as recommended by the manufacturer. The only particle size information is PM_{10} and $PM_{2.5}$ fractions per AP-42.

ON A SEPARATE PAGE, ATTACH A DIAGRAM SHOWING THE RELATIONSHIP OF THE CONTROL DEVICE TO ITS EMISSION SOURCE(S):

Attach Additional Sheets As Necessary

FORM C1

CONTROL DEVICE (FABRIC FILTER)

REVISED 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **C1**

CONTROL DEVICE ID NO: CD22	CONTROLS EMISSIONS FROM WHICH EMISSION SOURCE ID NO(S): FM
EMISSION POINT (STACK) ID NO(S): E22	POSITION IN SERIES OF CONTROLS NO. 1 OF 1 UNITS
MANUFACTURER: TBD	MODEL NO: TBD
DATE MANUFACTURED: TBD	PROPOSED OPERATION DATE: Nov-13
OPERATING SCENARIO:	PROPOSED START CONSTRUCTION DATE: Mar-11
1 OF 1	P.E. SEAL REQUIRED (PER 2Q .0112)? YES

DESCRIBE CONTROL SYSTEM:

Fabric filter

POLLUTANT(S) COLLECTED:	PM	PM10	PM2.5	
BEFORE CONTROL EMISSION RATE (LB/HR):	NA	NA	NA	
CAPTURE EFFICIENCY:	100 %	100 %	100 %	%
CONTROL DEVICE EFFICIENCY:	99.9 %	99.9 %	99+ %	%
CORRESPONDING OVERALL EFFICIENCY:	99.9 %	99.9 %	99+ %	%
EFFICIENCY DETERMINATION CODE:	4	4	4	
TOTAL EMISSION RATE (LB/HR):	0.72	0.61	0.32	

PRESSURE DROP (IN. H_20): MIN: MAX: TBD GAUGE? X YES G NO WARNING ALARM? G YES X NO

BULK PARTICLE DENSITY (LB/FT^3): NA	INLET TEMPERATURE (^{o}F): MIN MA 156
POLLUTANT LOADING RATE: NA G LB/HR G GR/FT^3	OUTLET TEMPERATURE (^{o}F): MIN MA 156
INLET AIR FLOW RATE (ACFM): 9820	FILTER MAX OPERATING TEMP. (^{o}F): TBD

NO. OF COMPARTMENTS: TBD	NO. OF BAGS PER COMPARTMENT: TBD	LENGTH OF BAG (IN.): TBD
DIAMETER OF BAG (IN.): TBD	DRAFT: X INDUCED/NEG. G FORCED/POS.	FILTER SURFACE AREA (FT^2): TBD
AIR TO CLOTH RATIO: TBD	FILTER MATERIAL: TBD	G WOVEN G FELTED

DESCRIBE CLEANING PROCEDURES:

X AIR PULSE G SONIC

G REVERSE FLOW G SIMPLE BAG COLLAPSE

G MECHANICAL/SHAKER G RING BAG COLLAPSE

G OTHER

DESCRIBE INCOMING AIR STREAM:

Cement mill feed bin

PARTICLE SIZE DISTRIBUTION

SIZE (MICRONS)	WEIGHT % OF TOTAL	CUMULATIVE %
0-1		
1-10		
10-25		
25-50		
50-100		
>100		
	TOTAL = 100	

METHOD FOR DETERMINING WHEN TO CLEAN:

G AUTOMATIC G TIMED G MANUAL

METHOD FOR DETERMINING WHEN TO REPLACE THE BAGS:

G ALARM G INTERNAL INSPECTION G VISIBLE EMISSION G OTHER

SPECIAL CONDITIONS:

G MOISTURE BLINDING G CHEMICAL RESISTIVITY G OTHER

EXPLAIN:

DESCRIBE MAINTENANCE PROCEDURES: Regular inspections and maintenance will be performed as recommended by the manufacturer. The only particle size information is PM_{10} and $PM_{2.5}$ fractions per AP-42.

ON A SEPARATE PAGE, ATTACH A DIAGRAM SHOWING THE RELATIONSHIP OF THE CONTROL DEVICE TO ITS EMISSION SOURCE(S):

Attach Additional Sheets As Necessary

FORM C1

CONTROL DEVICE (FABRIC FILTER)

REVISED 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **C1**

CONTROL DEVICE ID NO: CD23	CONTROLS EMISSIONS FROM WHICH EMISSION SOURCE ID NO(S): FM
EMISSION POINT (STACK) ID NO(S): E23	POSITION IN SERIES OF CONTROLS NO. 1 OF 1 UNITS
MANUFACTURER: TBD	MODEL NO: TBD
DATE MANUFACTURED: TBD	PROPOSED OPERATION DATE: Nov-13
OPERATING SCENARIO:	PROPOSED START CONSTRUCTION DATE: Mar-11
1 OF 1	P.E. SEAL REQUIRED (PER 2Q .0112)? YES

DESCRIBE CONTROL SYSTEM:

Fabric filter

POLLUTANT(S) COLLECTED:	PM	PM10	PM2.5	
BEFORE CONTROL EMISSION RATE (LB/HR):	NA	NA	NA	
CAPTURE EFFICIENCY:	100 %	100 %	100 %	%
CONTROL DEVICE EFFICIENCY:	99.9 %	99.9 %	99+ %	%
CORRESPONDING OVERALL EFFICIENCY:	99.9 %	99.9 %	99+ %	%
EFFICIENCY DETERMINATION CODE:	4	4	4	
TOTAL EMISSION RATE (LB/HR):	0.65	0.54	0.29	

PRESSURE DROP (IN. H_20): MIN: MAX: TBD GAUGE? X YES G NO WARNING ALARM? G YES X NO

BULK PARTICLE DENSITY (LB/FT^3): NA	INLET TEMPERATURE (^{o}F): MIN MA 156
POLLUTANT LOADING RATE: NA G LB/HR G GR/FT^3	OUTLET TEMPERATURE (^{o}F): MIN MA 156
INLET AIR FLOW RATE (ACFM): 8830	FILTER MAX OPERATING TEMP. (^{o}F): TBD

NO. OF COMPARTMENTS: TBD	NO. OF BAGS PER COMPARTMENT: TBD	LENGTH OF BAG (IN.): TBD
DIAMETER OF BAG (IN.): TBD	DRAFT: X INDUCED/NEG. G FORCED/POS.	FILTER SURFACE AREA (FT^2): TBD
AIR TO CLOTH RATIO: TBD	FILTER MATERIAL: TBD	G WOVEN G FELTED

DESCRIBE CLEANING PROCEDURES:

X AIR PULSE G SONIC

G REVERSE FLOW G SIMPLE BAG COLLAPSE

G MECHANICAL/SHAKER G RING BAG COLLAPSE

G OTHER

DESCRIBE INCOMING AIR STREAM:

Cement mill feed bin

PARTICLE SIZE DISTRIBUTION

SIZE (MICRONS)	WEIGHT % OF TOTAL	CUMULATIVE %
0-1		
1-10		
10-25		
25-50		
50-100		
>100		
	TOTAL = 100	

METHOD FOR DETERMINING WHEN TO CLEAN:

G AUTOMATIC G TIMED G MANUAL

METHOD FOR DETERMINING WHEN TO REPLACE THE BAGS:

G ALARM G INTERNAL INSPECTION G VISIBLE EMISSION G OTHER

SPECIAL CONDITIONS:

G MOISTURE BLINDING G CHEMICAL RESISTIVITY G OTHER

EXPLAIN:

DESCRIBE MAINTENANCE PROCEDURES: Regular inspections and maintenance will be performed as recommended by the manufacturer. The only particle size information is PM_{10} and $PM_{2.5}$ fractions per AP-42.

ON A SEPARATE PAGE, ATTACH A DIAGRAM SHOWING THE RELATIONSHIP OF THE CONTROL DEVICE TO ITS EMISSION SOURCE(S):

Attach Additional Sheets As Necessary

FORM C1

CONTROL DEVICE (FABRIC FILTER)

REVISED 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **C1**

CONTROL DEVICE ID NO: CD46	CONTROLS EMISSIONS FROM WHICH EMISSION SOURCE ID NO(S): FM
EMISSION POINT (STACK) ID NO(S): E46	POSITION IN SERIES OF CONTROLS NO. 1 OF 1 UNITS
MANUFACTURER: TBD	MODEL NO: TBD
DATE MANUFACTURED: TBD	PROPOSED OPERATION DATE: Nov-13
OPERATING SCENARIO:	PROPOSED START CONSTRUCTION DATE: Mar-11
1 OF 1	P.E. SEAL REQUIRED (PER 2Q .0112)? YES

DESCRIBE CONTROL SYSTEM:

Fabric filter

POLLUTANT(S) COLLECTED:	PM	PM10	PM2.5	
BEFORE CONTROL EMISSION RATE (LB/HR):	NA	NA	NA	
CAPTURE EFFICIENCY:	100 %	100 %	100 %	%
CONTROL DEVICE EFFICIENCY:	99.9 %	99.9 %	99+ %	%
CORRESPONDING OVERALL EFFICIENCY:	99.9 %	99.9 %	99+ %	%
EFFICIENCY DETERMINATION CODE:	4	4	4	
TOTAL EMISSION RATE (LB/HR):	0.35	0.30	0.16	

PRESSURE DROP (IN. H_20): MIN: MAX: TBD GAUGE? X YES G NO WARNING ALARM? G YES X NO

BULK PARTICLE DENSITY (LB/FT^3): NA	INLET TEMPERATURE (^{o}F): MIN MA 156
POLLUTANT LOADING RATE: NA G LB/HR G GR/FT^3	OUTLET TEMPERATURE (^{o}F): MIN MA 156
INLET AIR FLOW RATE (ACFM): 4810	FILTER MAX OPERATING TEMP. (^{o}F): TBD

NO. OF COMPARTMENTS: TBD	NO. OF BAGS PER COMPARTMENT: TBD	LENGTH OF BAG (IN.): TBD
DIAMETER OF BAG (IN.): TBD	DRAFT: X INDUCED/NEG. G FORCED/POS.	FILTER SURFACE AREA (FT^2): TBD
AIR TO CLOTH RATIO: TBD	FILTER MATERIAL: TBD	G WOVEN G FELTED

DESCRIBE CLEANING PROCEDURES:

X AIR PULSE G SONIC

G REVERSE FLOW G SIMPLE BAG COLLAPSE

G MECHANICAL/SHAKER G RING BAG COLLAPSE

G OTHER

DESCRIBE INCOMING AIR STREAM:

Cement additive bin

PARTICLE SIZE DISTRIBUTION

SIZE (MICRONS)	WEIGHT % OF TOTAL	CUMULATIVE %
0-1		
1-10		
10-25		
25-50		
50-100		
>100		
	TOTAL = 100	

METHOD FOR DETERMINING WHEN TO CLEAN:

G AUTOMATIC G TIMED G MANUAL

METHOD FOR DETERMINING WHEN TO REPLACE THE BAGS:

G ALARM G INTERNAL INSPECTION G VISIBLE EMISSION G OTHER

SPECIAL CONDITIONS:

G MOISTURE BLINDING G CHEMICAL RESISTIVITY G OTHER

EXPLAIN:

DESCRIBE MAINTENANCE PROCEDURES: Regular inspections and maintenance will be performed as recommended by the manufacturer. The only particle size information is PM_{10} and $PM_{2.5}$ fractions per AP-42.

ON A SEPARATE PAGE, ATTACH A DIAGRAM SHOWING THE RELATIONSHIP OF THE CONTROL DEVICE TO ITS EMISSION SOURCE(S):

Attach Additional Sheets As Necessary

FORM C1

CONTROL DEVICE (FABRIC FILTER)

REVISED 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **C1**

CONTROL DEVICE ID NO: CD47	CONTROLS EMISSIONS FROM WHICH EMISSION SOURCE ID NO(S): FM
EMISSION POINT (STACK) ID NO(S): E47	POSITION IN SERIES OF CONTROLS NO. 1 OF 1 UNITS
MANUFACTURER: TBD	MODEL NO: TBD
DATE MANUFACTURED: TBD	PROPOSED OPERATION DATE: Nov-13
OPERATING SCENARIO:	PROPOSED START CONSTRUCTION DATE: Mar-11
1 OF 1	P.E. SEAL REQUIRED (PER 2Q .0112)? YES

DESCRIBE CONTROL SYSTEM:

Fabric filter

POLLUTANT(S) COLLECTED:	PM	PM10	PM2.5	
BEFORE CONTROL EMISSION RATE (LB/HR):	NA	NA	NA	
CAPTURE EFFICIENCY:	100 %	100 %	100 %	%
CONTROL DEVICE EFFICIENCY:	99.9 %	99.9 %	99+ %	%
CORRESPONDING OVERALL EFFICIENCY:	99.9 %	99.9 %	99+ %	%
EFFICIENCY DETERMINATION CODE:	4	4	4	
TOTAL EMISSION RATE (LB/HR):	0.89	0.75	0.40	

PRESSURE DROP (IN. H_20): MIN: MAX: TBD GAUGE? X YES G NO WARNING ALARM? G YES X NO

BULK PARTICLE DENSITY (LB/FT^3): NA	INLET TEMPERATURE (^{o}F): MIN MA 77
POLLUTANT LOADING RATE: NA G LB/HR G GR/FT^3	OUTLET TEMPERATURE (^{o}F): MIN MA) 77
INLET AIR FLOW RATE (ACFM): 10587	FILTER MAX OPERATING TEMP. (^{o}F): TBD

NO. OF COMPARTMENTS: TBD	NO. OF BAGS PER COMPARTMENT: TBD	LENGTH OF BAG (IN.): TBD
DIAMETER OF BAG (IN.): TBD	DRAFT: X INDUCED/NEG. G FORCED/POS.	FILTER SURFACE AREA (FT^2): TBD
AIR TO CLOTH RATIO: TBD	FILTER MATERIAL: TBD	G WOVEN G FELTED

DESCRIBE CLEANING PROCEDURES:

X AIR PULSE G SONIC

G REVERSE FLOW G SIMPLE BAG COLLAPSE

G MECHANICAL/SHAKER G RING BAG COLLAPSE

G OTHER

DESCRIBE INCOMING AIR STREAM:

Cement additve intake

PARTICLE SIZE DISTRIBUTION

SIZE (MICRONS)	WEIGHT % OF TOTAL	CUMULATIVE %
0-1		
1-10		
10-25		
25-50		
50-100		
>100		
	TOTAL = 100	

METHOD FOR DETERMINING WHEN TO CLEAN:

G AUTOMATIC G TIMED G MANUAL

METHOD FOR DETERMINING WHEN TO REPLACE THE BAGS:

G ALARM G INTERNAL INSPECTION G VISIBLE EMISSION G OTHER

SPECIAL CONDITIONS:

G MOISTURE BLINDING G CHEMICAL RESISTIVITY G OTHER

EXPLAIN:

DESCRIBE MAINTENANCE PROCEDURES: Regular inspections and maintenance will be performed as recommended by the manufacturer. The only particle size information is PM_{10} and $PM_{2.5}$ fractions per AP-42.

ON A SEPARATE PAGE, ATTACH A DIAGRAM SHOWING THE RELATIONSHIP OF THE CONTROL DEVICE TO ITS EMISSION SOURCE(S):

Attach Additional Sheets As Necessary

FORM C1

CONTROL DEVICE (FABRIC FILTER)

REVISED 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **C1**

CONTROL DEVICE ID NO: CD24	CONTROLS EMISSIONS FROM WHICH EMISSION SOURCE ID NO(S): FM
EMISSION POINT (STACK) ID NO(S): E24	POSITION IN SERIES OF CONTROLS NO. 1 OF 1 UNITS
MANUFACTURER: TBD	MODEL NO: TBD
DATE MANUFACTURED: TBD	PROPOSED OPERATION DATE: Nov-13
OPERATING SCENARIO:	PROPOSED START CONSTRUCTION DATE: Mar-11
1 OF 1	P.E. SEAL REQUIRED (PER 2Q .0112)? YES

DESCRIBE CONTROL SYSTEM:

Fabric filter

POLLUTANT(S) COLLECTED:	PM	PM10	PM2.5	
BEFORE CONTROL EMISSION RATE (LB/HR):	NA	NA	NA	
CAPTURE EFFICIENCY:	100 %	100 %	100 %	%
CONTROL DEVICE EFFICIENCY:	99.9 %	99.9 %	99+ %	%
CORRESPONDING OVERALL EFFICIENCY:	99.9 %	99.9 %	99+ %	%
EFFICIENCY DETERMINATION CODE:	4	4	4	
TOTAL EMISSION RATE (LB/HR):	0.35	0.29	0.16	

PRESSURE DROP (IN. H_20): MIN: MAX: TBD GAUGE? X YES G NO WARNING ALARM? G YES X NO

BULK PARTICLE DENSITY (LB/FT^3): NA	INLET TEMPERATURE (^{o}F): MIN MA 156
POLLUTANT LOADING RATE: NA G LB/HR G GR/FT^3	OUTLET TEMPERATURE (^{o}F): MIN MA 156
INLET AIR FLOW RATE (ACFM): 4697	FILTER MAX OPERATING TEMP. (^{o}F): TBD

NO. OF COMPARTMENTS: TBD	NO. OF BAGS PER COMPARTMENT: TBD	LENGTH OF BAG (IN.): TBD
DIAMETER OF BAG (IN.): TBD	DRAFT: X INDUCED/NEG. G FORCED/POS.	FILTER SURFACE AREA (FT^2): TBD
AIR TO CLOTH RATIO: TBD	FILTER MATERIAL: TBD	G WOVEN G FELTED

DESCRIBE CLEANING PROCEDURES:

X AIR PULSE G SONIC

G REVERSE FLOW G SIMPLE BAG COLLAPSE

G MECHANICAL/SHAKER G RING BAG COLLAPSE

G OTHER

DESCRIBE INCOMING AIR STREAM:

Cement mill feed

PARTICLE SIZE DISTRIBUTION

SIZE (MICRONS)	WEIGHT % OF TOTAL	CUMULATIVE %
0-1		
1-10		
10-25		
25-50		
50-100		
>100		
	TOTAL = 100	

METHOD FOR DETERMINING WHEN TO CLEAN:

G AUTOMATIC G TIMED G MANUAL

METHOD FOR DETERMINING WHEN TO REPLACE THE BAGS:

G ALARM G INTERNAL INSPECTION G VISIBLE EMISSION G OTHER

SPECIAL CONDITIONS:

G MOISTURE BLINDING G CHEMICAL RESISTIVITY G OTHER

EXPLAIN:

DESCRIBE MAINTENANCE PROCEDURES: Regular inspections and maintenance will be performed as recommended by the manufacturer. The only particle size information is PM_{10} and $PM_{2.5}$ fractions per AP-42.

ON A SEPARATE PAGE, ATTACH A DIAGRAM SHOWING THE RELATIONSHIP OF THE CONTROL DEVICE TO ITS EMISSION SOURCE(S):

Attach Additional Sheets As Necessary

FORM C1

CONTROL DEVICE (FABRIC FILTER)

REVISED 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **C1**

CONTROL DEVICE ID NO: CD25	CONTROLS EMISSIONS FROM WHICH EMISSION SOURCE ID NO(S): FM
EMISSION POINT (STACK) ID NO(S): E25	POSITION IN SERIES OF CONTROLS NO. 1 OF 1 UNITS
MANUFACTURER: TBD	MODEL NO: TBD
DATE MANUFACTURED: TBD	PROPOSED OPERATION DATE: Nov-13
OPERATING SCENARIO:	PROPOSED START CONSTRUCTION DATE: Mar-11
1 OF 1	P.E. SEAL REQUIRED (PER 2Q .0112)? YES

DESCRIBE CONTROL SYSTEM:

Fabric filter

POLLUTANT(S) COLLECTED:	PM	PM10	PM2.5	
BEFORE CONTROL EMISSION RATE (LB/HR):	NA	NA	NA	
CAPTURE EFFICIENCY:	100 %	100 %	100 %	%
CONTROL DEVICE EFFICIENCY:	99.9 %	99.9 %	99+ %	%
CORRESPONDING OVERALL EFFICIENCY:	99.9 %	99.9 %	99+ %	%
EFFICIENCY DETERMINATION CODE:	4	4	4	
TOTAL EMISSION RATE (LB/HR):	0.18	0.15	0.08	

PRESSURE DROP (IN. H_20): MIN: MAX: TBD GAUGE? X YES G NO	WARNING ALARM? G YES X NO
BULK PARTICLE DENSITY (LB/FT^3): NA	INLET TEMPERATURE (^oF): MIN MA 212
POLLUTANT LOADING RATE: NA G LB/HR G GR/FT^3	OUTLET TEMPERATURE (^oF): MIN MA 212
INLET AIR FLOW RATE (ACFM): 2719	FILTER MAX OPERATING TEMP. (^oF): TBD

NO. OF COMPARTMENTS: TBD	NO. OF BAGS PER COMPARTMENT: TBD	LENGTH OF BAG (IN.): TBD
DIAMETER OF BAG (IN.): TBD	DRAFT: X INDUCED/NEG. G FORCED/POS.	FILTER SURFACE AREA (FT^2): TBD
AIR TO CLOTH RATIO: TBD	FILTER MATERIAL: TBD	G WOVEN G FELTED

DESCRIBE CLEANING PROCEDURES:

X AIR PULSE G SONIC

G REVERSE FLOW G SIMPLE BAG COLLAPSE

G MECHANICAL/SHAKER G RING BAG COLLAPSE

G OTHER

DESCRIBE INCOMING AIR STREAM:

Cement mill recirculation bin

PARTICLE SIZE DISTRIBUTION

SIZE (MICRONS)	WEIGHT % OF TOTAL	CUMULATIVE %
0-1		
1-10		
10-25		
25-50		
50-100		
>100		
	TOTAL = 100	

METHOD FOR DETERMINING WHEN TO CLEAN:

G AUTOMATIC G TIMED G MANUAL

METHOD FOR DETERMINING WHEN TO REPLACE THE BAGS:

G ALARM G INTERNAL INSPECTION G VISIBLE EMISSION G OTHER

SPECIAL CONDITIONS:

G MOISTURE BLINDING G CHEMICAL RESISTIVITY G OTHER

EXPLAIN:

DESCRIBE MAINTENANCE PROCEDURES: Regular inspections and maintenance will be performed as recommended by the manufacturer. The only particle size information is PM_{10} and $PM_{2.5}$ fractions per AP-42.

ON A SEPARATE PAGE, ATTACH A DIAGRAM SHOWING THE RELATIONSHIP OF THE CONTROL DEVICE TO ITS EMISSION SOURCE(S):

Attach Additional Sheets As Necessary

FORM C1

CONTROL DEVICE (FABRIC FILTER)

REVISED 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **C1**

CONTROL DEVICE ID NO: CD26	CONTROLS EMISSIONS FROM WHICH EMISSION SOURCE ID NO(S): FM
EMISSION POINT (STACK) ID NO(S): E26	POSITION IN SERIES OF CONTROLS NO. 1 OF 1 UNITS
MANUFACTURER: TBD	MODEL NO: TBD
DATE MANUFACTURED: TBD	PROPOSED OPERATION DATE: Nov-13
OPERATING SCENARIO:	PROPOSED START CONSTRUCTION DATE: Mar-11
1 OF 1	P.E. SEAL REQUIRED (PER 2Q .0112)? YES

DESCRIBE CONTROL SYSTEM:

Fabric filter

POLLUTANT(S) COLLECTED:	PM	PM10	PM2.5	
BEFORE CONTROL EMISSION RATE (LB/HR):	NA	NA	NA	
CAPTURE EFFICIENCY:	100 %	100 %	100 %	%
CONTROL DEVICE EFFICIENCY:	99.9 %	99.9 %	99+ %	%
CORRESPONDING OVERALL EFFICIENCY:	99.9 %	99.9 %	99+ %	%
EFFICIENCY DETERMINATION CODE:	4	4	4	
TOTAL EMISSION RATE (LB/HR):	0.35	0.30	0.16	

PRESSURE DROP (IN. H_20): MIN: MAX: TBD GAUGE? X YES G NO WARNING ALARM? G YES X NO

BULK PARTICLE DENSITY (LB/FT^3): NA	INLET TEMPERATURE (^{o}F): MIN MA 212
POLLUTANT LOADING RATE: NA G LB/HR G GR/FT^3	OUTLET TEMPERATURE (^{o}F): MIN MA 212
INLET AIR FLOW RATE (ACFM): 5262	FILTER MAX OPERATING TEMP. (^{o}F): TBD

NO. OF COMPARTMENTS: TBD	NO. OF BAGS PER COMPARTMENT: TBD	LENGTH OF BAG (IN.): TBD
DIAMETER OF BAG (IN.): TBD	DRAFT: X INDUCED/NEG. G FORCED/POS.	FILTER SURFACE AREA (FT^2): TBD
AIR TO CLOTH RATIO: TBD	FILTER MATERIAL: TBD	G WOVEN G FELTED

DESCRIBE CLEANING PROCEDURES:

X AIR PULSE G SONIC

G REVERSE FLOW G SIMPLE BAG COLLAPSE

G MECHANICAL/SHAKER G RING BAG COLLAPSE

G OTHER

DESCRIBE INCOMING AIR STREAM:

Cement mill reject

PARTICLE SIZE DISTRIBUTION

SIZE (MICRONS)	WEIGHT % OF TOTAL	CUMULATIVE %
0-1		
1-10		
10-25		
25-50		
50-100		
>100		
	TOTAL = 100	

METHOD FOR DETERMINING WHEN TO CLEAN:

G AUTOMATIC G TIMED G MANUAL

METHOD FOR DETERMINING WHEN TO REPLACE THE BAGS:

G ALARM G INTERNAL INSPECTION G VISIBLE EMISSION G OTHER

SPECIAL CONDITIONS:

G MOISTURE BLINDING G CHEMICAL RESISTIVITY G OTHER

EXPLAIN:

DESCRIBE MAINTENANCE PROCEDURES: Regular inspections and maintenance will be performed as recommended by the manufacturer. The only particle size information is PM_{10} and $PM_{2.5}$ fractions per AP-42.

ON A SEPARATE PAGE, ATTACH A DIAGRAM SHOWING THE RELATIONSHIP OF THE CONTROL DEVICE TO ITS EMISSION SOURCE(S):

Attach Additional Sheets As Necessary

FORM C1

CONTROL DEVICE (FABRIC FILTER)

REVISED 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **C1**

CONTROL DEVICE ID NO: CD27	CONTROLS EMISSIONS FROM WHICH EMISSION SOURCE ID NO(S): FM
EMISSION POINT (STACK) ID NO(S): E27	POSITION IN SERIES OF CONTROLS NO. 1 OF 1 UNITS
MANUFACTURER: TBD	MODEL NO: TBD
DATE MANUFACTURED: TBD	PROPOSED OPERATION DATE: Nov-13
OPERATING SCENARIO:	PROPOSED START CONSTRUCTION DATE: Mar-11
1 OF 1	P.E. SEAL REQUIRED (PER 2Q .0112)? YES

DESCRIBE CONTROL SYSTEM:

Fabric filter

POLLUTANT(S) COLLECTED:	PM	PM10	PM2.5	
BEFORE CONTROL EMISSION RATE (LB/HR):	NA	NA	NA	
CAPTURE EFFICIENCY:	100 %	100 %	100 %	%
CONTROL DEVICE EFFICIENCY:	99.9 %	99.9 %	99+ %	%
CORRESPONDING OVERALL EFFICIENCY:	99.9 %	99.9 %	99+ %	%
EFFICIENCY DETERMINATION CODE:	4	4	4	
TOTAL EMISSION RATE (LB/HR):	0.15	0.12	0.07	

PRESSURE DROP (IN. H_20): MIN: MAX: TBD GAUGE? X YES G NO WARNING ALARM? G YES X NO

BULK PARTICLE DENSITY (LB/FT^3): NA	INLET TEMPERATURE (^{o}F): MIN MA 212
POLLUTANT LOADING RATE: NA G LB/HR G GR/FT^3	OUTLET TEMPERATURE (^{o}F): MIN MA 212
INLET AIR FLOW RATE (ACFM): 2154	FILTER MAX OPERATING TEMP. (^{o}F): TBD

NO. OF COMPARTMENTS: TBD	NO. OF BAGS PER COMPARTMENT: TBD	LENGTH OF BAG (IN.): TBD
DIAMETER OF BAG (IN.): TBD	DRAFT: X INDUCED/NEG. G FORCED/POS.	FILTER SURFACE AREA (FT^2): TBD
AIR TO CLOTH RATIO: TBD	FILTER MATERIAL: TBD	G WOVEN G FELTED

DESCRIBE CLEANING PROCEDURES:

X AIR PULSE G SONIC

G REVERSE FLOW G SIMPLE BAG COLLAPSE

G MECHANICAL/SHAKER G RING BAG COLLAPSE

G OTHER

DESCRIBE INCOMING AIR STREAM:

Cement transport

PARTICLE SIZE DISTRIBUTION

SIZE (MICRONS)	WEIGHT % OF TOTAL	CUMULATIVE %
0-1		
1-10		
10-25		
25-50		
50-100		
>100		
	TOTAL = 100	

METHOD FOR DETERMINING WHEN TO CLEAN:

G AUTOMATIC G TIMED G MANUAL

METHOD FOR DETERMINING WHEN TO REPLACE THE BAGS:

G ALARM G INTERNAL INSPECTION G VISIBLE EMISSION G OTHER

SPECIAL CONDITIONS:

G MOISTURE BLINDING G CHEMICAL RESISTIVITY G OTHER

EXPLAIN:

DESCRIBE MAINTENANCE PROCEDURES: Regular inspections and maintenance will be performed as recommended by the manufacturer. The only particle size information is PM_{10} and $PM_{2.5}$ fractions per AP-42.

ON A SEPARATE PAGE, ATTACH A DIAGRAM SHOWING THE RELATIONSHIP OF THE CONTROL DEVICE TO ITS EMISSION SOURCE(S):

Attach Additional Sheets As Necessary

FORM C1

CONTROL DEVICE (FABRIC FILTER)

REVISED 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **C1**

CONTROL DEVICE ID NO: CD28	CONTROLS EMISSIONS FROM WHICH EMISSION SOURCE ID NO(S): FM
EMISSION POINT (STACK) ID NO(S): E28	POSITION IN SERIES OF CONTROLS NO. 1 OF 1 UNITS
MANUFACTURER: TBD	MODEL NO: TBD
DATE MANUFACTURED: TBD	PROPOSED OPERATION DATE: Nov-13
OPERATING SCENARIO:	PROPOSED START CONSTRUCTION DATE: Mar-11
1 OF 1	P.E. SEAL REQUIRED (PER 2Q .0112)? YES

DESCRIBE CONTROL SYSTEM:

Fabric filter

POLLUTANT(S) COLLECTED:	PM	PM10	PM2.5	
BEFORE CONTROL EMISSION RATE (LB/HR):	NA	NA	NA	
CAPTURE EFFICIENCY:	100 %	100 %	100 %	%
CONTROL DEVICE EFFICIENCY:	99.9 %	99.9 %	99+ %	%
CORRESPONDING OVERALL EFFICIENCY:	99.9 %	99.9 %	99+ %	%
EFFICIENCY DETERMINATION CODE:	4	4	4	
TOTAL EMISSION RATE (LB/HR):	0.40	0.33	0.18	

PRESSURE DROP (IN. H_20): MIN: MAX: TBD GAUGE? X YES G NO WARNING ALARM? G YES X NO

BULK PARTICLE DENSITY (LB/FT^3): NA	INLET TEMPERATURE (^{o}F): MIN MA 178
POLLUTANT LOADING RATE: NA G LB/HR G GR/FT^3	OUTLET TEMPERATURE (^{o}F): MIN MA 178
INLET AIR FLOW RATE (ACFM): 5580	FILTER MAX OPERATING TEMP. (^{o}F): TBD

NO. OF COMPARTMENTS: TBD	NO. OF BAGS PER COMPARTMENT: TBD	LENGTH OF BAG (IN.): TBD
DIAMETER OF BAG (IN.): TBD	DRAFT: X INDUCED/NEG. G FORCED/POS.	FILTER SURFACE AREA (FT^2): TBD
AIR TO CLOTH RATIO: TBD	FILTER MATERIAL: TBD	G WOVEN G FELTED

DESCRIBE CLEANING PROCEDURES:

X AIR PULSE G SONIC

G REVERSE FLOW G SIMPLE BAG COLLAPSE

G MECHANICAL/SHAKER G RING BAG COLLAPSE

G OTHER

DESCRIBE INCOMING AIR STREAM:

Cement mill feed

PARTICLE SIZE DISTRIBUTION

SIZE (MICRONS)	WEIGHT % OF TOTAL	CUMULATIVE %
0-1		
1-10		
10-25		
25-50		
50-100		
>100		
	TOTAL = 100	

METHOD FOR DETERMINING WHEN TO CLEAN:

G AUTOMATIC G TIMED G MANUAL

METHOD FOR DETERMINING WHEN TO REPLACE THE BAGS:

G ALARM G INTERNAL INSPECTION G VISIBLE EMISSION G OTHER

SPECIAL CONDITIONS:

G MOISTURE BLINDING G CHEMICAL RESISTIVITY G OTHER

EXPLAIN:

DESCRIBE MAINTENANCE PROCEDURES: Regular inspections and maintenance will be performed as recommended by the manufacturer. The only particle size information is PM_{10} and $PM_{2.5}$ fractions per AP-42.

ON A SEPARATE PAGE, ATTACH A DIAGRAM SHOWING THE RELATIONSHIP OF THE CONTROL DEVICE TO ITS EMISSION SOURCE(S):

Attach Additional Sheets As Necessary

FORM C1

CONTROL DEVICE (FABRIC FILTER)

REVISED 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **C1**

CONTROL DEVICE ID NO: CD29	CONTROLS EMISSIONS FROM WHICH EMISSION SOURCE ID NO(S): FM
EMISSION POINT (STACK) ID NO(S): E29	POSITION IN SERIES OF CONTROLS NO. 1 OF 1 UNITS
MANUFACTURER: TBD	MODEL NO: TBD
DATE MANUFACTURED: TBD	PROPOSED OPERATION DATE: Nov-13
OPERATING SCENARIO:	PROPOSED START CONSTRUCTION DATE: Mar-11
1 OF 1	P.E. SEAL REQUIRED (PER 2Q .0112)? YES

DESCRIBE CONTROL SYSTEM:

Fabric filter

POLLUTANT(S) COLLECTED:	PM	PM10	PM2.5	
BEFORE CONTROL EMISSION RATE (LB/HR):	NA	NA	NA	
CAPTURE EFFICIENCY:	100 %	100 %	100 %	%
CONTROL DEVICE EFFICIENCY:	99.9 %	99.9 %	99+ %	%
CORRESPONDING OVERALL EFFICIENCY:	99.9 %	99.9 %	99+ %	%
EFFICIENCY DETERMINATION CODE:	4	4	4	
TOTAL EMISSION RATE (LB/HR):	0.18	0.15	0.08	

PRESSURE DROP (IN. H_20): MIN: MAX: TBD GAUGE? X YES G NO WARNING ALARM? G YES X NO

BULK PARTICLE DENSITY (LB/FT^3): NA	INLET TEMPERATURE (^{o}F): MIN MA 212
POLLUTANT LOADING RATE: NA G LB/HR G GR/FT^3	OUTLET TEMPERATURE (^{o}F): MIN MA 212
INLET AIR FLOW RATE (ACFM): 2719	FILTER MAX OPERATING TEMP. (^{o}F): TBD

NO. OF COMPARTMENTS: TBD	NO. OF BAGS PER COMPARTMENT: TBD	LENGTH OF BAG (IN.): TBD
DIAMETER OF BAG (IN.): TBD	DRAFT: X INDUCED/NEG. G FORCED/POS.	FILTER SURFACE AREA (FT^2): TBD
AIR TO CLOTH RATIO: TBD	FILTER MATERIAL: TBD	G WOVEN G FELTED

DESCRIBE CLEANING PROCEDURES:

X AIR PULSE G SONIC

G REVERSE FLOW G SIMPLE BAG COLLAPSE

G MECHANICAL/SHAKER G RING BAG COLLAPSE

G OTHER

DESCRIBE INCOMING AIR STREAM:

Cement mill recirculation bin

PARTICLE SIZE DISTRIBUTION

SIZE (MICRONS)	WEIGHT % OF TOTAL	CUMULATIVE %
0-1		
1-10		
10-25		
25-50		
50-100		
>100		
	TOTAL = 100	

METHOD FOR DETERMINING WHEN TO CLEAN:

G AUTOMATIC G TIMED G MANUAL

METHOD FOR DETERMINING WHEN TO REPLACE THE BAGS:

G ALARM G INTERNAL INSPECTION G VISIBLE EMISSION G OTHER

SPECIAL CONDITIONS:

G MOISTURE BLINDING G CHEMICAL RESISTIVITY G OTHER

EXPLAIN:

DESCRIBE MAINTENANCE PROCEDURES: Regular inspections and maintenance will be performed as recommended by the manufacturer. The only particle size information is PM_{10} and $PM_{2.5}$ fractions per AP-42.

ON A SEPARATE PAGE, ATTACH A DIAGRAM SHOWING THE RELATIONSHIP OF THE CONTROL DEVICE TO ITS EMISSION SOURCE(S):

Attach Additional Sheets As Necessary

FORM C1

CONTROL DEVICE (FABRIC FILTER)

REVISED 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **C1**

CONTROL DEVICE ID NO: CD30	CONTROLS EMISSIONS FROM WHICH EMISSION SOURCE ID NO(S): FM
EMISSION POINT (STACK) ID NO(S): E30	POSITION IN SERIES OF CONTROLS NO. 1 OF 1 UNITS
MANUFACTURER: TBD	MODEL NO: TBD
DATE MANUFACTURED: TBD	PROPOSED OPERATION DATE: Nov-13
OPERATING SCENARIO:	PROPOSED START CONSTRUCTION DATE: Mar-11
1 OF 1	P.E. SEAL REQUIRED (PER 2Q .0112)? YES

DESCRIBE CONTROL SYSTEM:

Fabric filter

POLLUTANT(S) COLLECTED:	PM	PM10	PM2.5	
BEFORE CONTROL EMISSION RATE (LB/HR):	NA	NA	NA	
CAPTURE EFFICIENCY:	100 %	100 %	100 %	%
CONTROL DEVICE EFFICIENCY:	99.9 %	99.9 %	99+ %	%
CORRESPONDING OVERALL EFFICIENCY:	99.9 %	99.9 %	99+ %	%
EFFICIENCY DETERMINATION CODE:	4	4	4	
TOTAL EMISSION RATE (LB/HR):	0.35	0.30	0.16	

PRESSURE DROP (IN. H_20): MIN: MAX: TBD GAUGE? X YES G NO WARNING ALARM? G YES X NO

BULK PARTICLE DENSITY (LB/FT^3): NA	INLET TEMPERATURE (^oF): MIN MA 212
POLLUTANT LOADING RATE: NA G LB/HR G GR/FT^3	OUTLET TEMPERATURE (^oF): MIN MA 212
INLET AIR FLOW RATE (ACFM): 5262	FILTER MAX OPERATING TEMP. (^oF): TBD

NO. OF COMPARTMENTS: TBD	NO. OF BAGS PER COMPARTMENT: TBD	LENGTH OF BAG (IN.): TBD
DIAMETER OF BAG (IN.): TBD	DRAFT: X INDUCED/NEG. G FORCED/POS.	FILTER SURFACE AREA (FT^2): TBD
AIR TO CLOTH RATIO: TBD	FILTER MATERIAL: TBD	G WOVEN G FELTED

DESCRIBE CLEANING PROCEDURES:

X AIR PULSE G SONIC

G REVERSE FLOW G SIMPLE BAG COLLAPSE

G MECHANICAL/SHAKER G RING BAG COLLAPSE

G OTHER

DESCRIBE INCOMING AIR STREAM:

Cement mill reject

PARTICLE SIZE DISTRIBUTION

SIZE (MICRONS)	WEIGHT % OF TOTAL	CUMULATIVE %
0-1		
1-10		
10-25		
25-50		
50-100		
>100		
	TOTAL = 100	

METHOD FOR DETERMINING WHEN TO CLEAN:

G AUTOMATIC G TIMED G MANUAL

METHOD FOR DETERMINING WHEN TO REPLACE THE BAGS:

G ALARM G INTERNAL INSPECTION G VISIBLE EMISSION G OTHER

SPECIAL CONDITIONS:

G MOISTURE BLINDING G CHEMICAL RESISTIVITY G OTHER

EXPLAIN:

DESCRIBE MAINTENANCE PROCEDURES: Regular inspections and maintenance will be performed as recommended by the manufacturer. The only particle size information is PM_{10} and $PM_{2.5}$ fractions per AP-42.

ON A SEPARATE PAGE, ATTACH A DIAGRAM SHOWING THE RELATIONSHIP OF THE CONTROL DEVICE TO ITS EMISSION SOURCE(S):

Attach Additional Sheets As Necessary

FORM C1

CONTROL DEVICE (FABRIC FILTER)

REVISED 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **C1**

CONTROL DEVICE ID NO: CD31	CONTROLS EMISSIONS FROM WHICH EMISSION SOURCE ID NO(S): FM
EMISSION POINT (STACK) ID NO(S): E31	POSITION IN SERIES OF CONTROLS NO. 1 OF 1 UNITS
MANUFACTURER: TBD	MODEL NO: TBD
DATE MANUFACTURED: TBD	PROPOSED OPERATION DATE: Nov-13
OPERATING SCENARIO:	PROPOSED START CONSTRUCTION DATE: Mar-11
1 OF 1	P.E. SEAL REQUIRED (PER 2Q .0112)? YES

DESCRIBE CONTROL SYSTEM:

Fabric filter

POLLUTANT(S) COLLECTED:	PM	PM10	PM2.5	
BEFORE CONTROL EMISSION RATE (LB/HR):	NA	NA	NA	
CAPTURE EFFICIENCY:	100 %	100 %	100 %	%
CONTROL DEVICE EFFICIENCY:	99.9 %	99.9 %	99+ %	%
CORRESPONDING OVERALL EFFICIENCY:	99.9 %	99.9 %	99+ %	%
EFFICIENCY DETERMINATION CODE:	4	4	4	
TOTAL EMISSION RATE (LB/HR):	0.15	0.12	0.07	

PRESSURE DROP (IN. H_20): MIN: MAX: TBD GAUGE? X YES G NO WARNING ALARM? G YES X NO

BULK PARTICLE DENSITY (LB/FT^3): NA	INLET TEMPERATURE (^{o}F): MIN MA 212
POLLUTANT LOADING RATE: NA G LB/HR G GR/FT^3	OUTLET TEMPERATURE (^{o}F): MIN MA 212
INLET AIR FLOW RATE (ACFM): 2154	FILTER MAX OPERATING TEMP. (^{o}F): TBD

NO. OF COMPARTMENTS: TBD	NO. OF BAGS PER COMPARTMENT: TBD	LENGTH OF BAG (IN.): TBD
DIAMETER OF BAG (IN.): TBD	DRAFT: X INDUCED/NEG. G FORCED/POS.	FILTER SURFACE AREA (FT^2): TBD
AIR TO CLOTH RATIO: TBD	FILTER MATERIAL: TBD	G WOVEN G FELTED

DESCRIBE CLEANING PROCEDURES:

X AIR PULSE G SONIC

G REVERSE FLOW G SIMPLE BAG COLLAPSE

G MECHANICAL/SHAKER G RING BAG COLLAPSE

G OTHER

DESCRIBE INCOMING AIR STREAM:

Cement transport

PARTICLE SIZE DISTRIBUTION

SIZE (MICRONS)	WEIGHT % OF TOTAL	CUMULATIVE %
0-1		
1-10		
10-25		
25-50		
50-100		
>100		
	TOTAL = 100	

METHOD FOR DETERMINING WHEN TO CLEAN:

G AUTOMATIC G TIMED G MANUAL

METHOD FOR DETERMINING WHEN TO REPLACE THE BAGS:

G ALARM G INTERNAL INSPECTION G VISIBLE EMISSION G OTHER

SPECIAL CONDITIONS:

G MOISTURE BLINDING G CHEMICAL RESISTIVITY G OTHER

EXPLAIN:

DESCRIBE MAINTENANCE PROCEDURES: Regular inspections and maintenance will be performed as recommended by the manufacturer. The only particle size information is PM_{10} and $PM_{2.5}$ fractions per AP-42.

ON A SEPARATE PAGE, ATTACH A DIAGRAM SHOWING THE RELATIONSHIP OF THE CONTROL DEVICE TO ITS EMISSION SOURCE(S):

Attach Additional Sheets As Necessary

FORM C1

CONTROL DEVICE (FABRIC FILTER)

REVISED 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **C1**

CONTROL DEVICE ID NO: CD45A, B	CONTROLS EMISSIONS FROM WHICH EMISSION SOURCE ID NO(S): FM
EMISSION POINT (STACK) ID NO(S): E45	POSITION IN SERIES OF CONTROLS NO. 1 OF 1 UNITS
MANUFACTURER: TBD	MODEL NO: TBD
DATE MANUFACTURED: TBD	PROPOSED OPERATION DATE: Nov-13
OPERATING SCENARIO:	PROPOSED START CONSTRUCTION DATE: Mar-11
1 OF 1	P.E. SEAL REQUIRED (PER 2Q .0112)? YES

DESCRIBE CONTROL SYSTEM:

Fabric filters (2 identical units in parallel) venting through a common stack. Data below reflect combined outlet flow conditions.

POLLUTANT(S) COLLECTED:	PM	PM10	PM2.5	
BEFORE CONTROL EMISSION RATE (LB/HR):	NA	NA	NA	
CAPTURE EFFICIENCY:	100 %	100 %	100 %	%
CONTROL DEVICE EFFICIENCY:	99.9 %	99.9 %	99+ %	%
CORRESPONDING OVERALL EFFICIENCY:	99.9 %	99.9 %	99+ %	%
EFFICIENCY DETERMINATION CODE:	4	4	4	
TOTAL EMISSION RATE (LB/HR):	8.47	7.12	3.81	

PRESSURE DROP (IN. H_20): MIN: MAX: TBD GAUGE? X YES G NO WARNING ALARM? G YES X NO

BULK PARTICLE DENSITY (LB/FT^3): NA	INLET TEMPERATURE (^{o}F): MIN MA 210
POLLUTANT LOADING RATE: NA G LB/HR G GR/FT^3	OUTLET TEMPERATURE (^{o}F): MIN MA 210
INLET AIR FLOW RATE (ACFM): 125438	FILTER MAX OPERATING TEMP. (^{o}F): TBD

NO. OF COMPARTMENTS: TBD	NO. OF BAGS PER COMPARTMENT: TBD	LENGTH OF BAG (IN.): TBD
DIAMETER OF BAG (IN.): TBD	DRAFT: X INDUCED/NEG. G FORCED/POS.	FILTER SURFACE AREA (FT^2): TBD
AIR TO CLOTH RATIO: TBD	FILTER MATERIAL: TBD	G WOVEN G FELTED

DESCRIBE CLEANING PROCEDURES:

X AIR PULSE G SONIC
G REVERSE FLOW G SIMPLE BAG COLLAPSE
G MECHANICAL/SHAKER G RING BAG COLLAPSE
G OTHER

DESCRIBE INCOMING AIR STREAM:

Exhaust from Finish mill 1 (CD45A) and Finish mill 2 (CD45B)

PARTICLE SIZE DISTRIBUTION

SIZE (MICRONS)	WEIGHT % OF TOTAL	CUMULATIVE %
0-1		
1-10		
10-25		
25-50		
50-100		
>100		
	TOTAL = 100	

METHOD FOR DETERMINING WHEN TO CLEAN:

G AUTOMATIC G TIMED G MANUAL

METHOD FOR DETERMINING WHEN TO REPLACE THE BAGS:

G ALARM G INTERNAL INSPECTION G VISIBLE EMISSION G OTHER

SPECIAL CONDITIONS:

G MOISTURE BLINDING G CHEMICAL RESISTIVITY G OTHER

EXPLAIN:

DESCRIBE MAINTENANCE PROCEDURES: Regular inspections and maintenance will be performed as recommended by the manufacturer. The only particle size information is PM_{10} and $PM_{2.5}$ fractions per AP-42.

ON A SEPARATE PAGE, ATTACH A DIAGRAM SHOWING THE RELATIONSHIP OF THE CONTROL DEVICE TO ITS EMISSION SOURCE(S):

Attach Additional Sheets As Necessary

FORM C1

CONTROL DEVICE (FABRIC FILTER)

REVISED 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **C1**

CONTROL DEVICE ID NO: CD32	CONTROLS EMISSIONS FROM WHICH EMISSION SOURCE ID NO(S): CHSL
EMISSION POINT (STACK) ID NO(S): E32	POSITION IN SERIES OF CONTROLS NO. 1 OF 1 UNITS
MANUFACTURER: TBD	MODEL NO: TBD
DATE MANUFACTURED: TBD	PROPOSED OPERATION DATE: Nov-13
OPERATING SCENARIO:	PROPOSED START CONSTRUCTION DATE: Mar-11
1 OF 1	P.E. SEAL REQUIRED (PER 2Q .0112)? YES

DESCRIBE CONTROL SYSTEM:

Fabric filter

POLLUTANT(S) COLLECTED:	PM	PM10	PM2.5	
BEFORE CONTROL EMISSION RATE (LB/HR):	NA	NA	NA	
CAPTURE EFFICIENCY:	100 %	100 %	100 %	%
CONTROL DEVICE EFFICIENCY:	99.9 %	99.9 %	99+ %	%
CORRESPONDING OVERALL EFFICIENCY:	99.9 %	99.9 %	99+ %	%
EFFICIENCY DETERMINATION CODE:	4	4	4	
TOTAL EMISSION RATE (LB/HR):	1.81	1.52	0.82	

PRESSURE DROP (IN. H_20): MIN: MAX: TBD GAUGE? X YES G NO WARNING ALARM? G YES X NO

BULK PARTICLE DENSITY (LB/FT^3): NA	INLET TEMPERATURE (^{o}F): MIN MA 212
POLLUTANT LOADING RATE: NA G LB/HR G GR/FT^3	OUTLET TEMPERATURE (^{o}F): MIN MA 212
INLET AIR FLOW RATE (ACFM): 26910	FILTER MAX OPERATING TEMP. (^{o}F): TBD

NO. OF COMPARTMENTS: TBD	NO. OF BAGS PER COMPARTMENT: TBD	LENGTH OF BAG (IN.): TBD
DIAMETER OF BAG (IN.): TBD	DRAFT: X INDUCED/NEG. G FORCED/POS.	FILTER SURFACE AREA (FT^2): TBD
AIR TO CLOTH RATIO: TBD	FILTER MATERIAL: TBD	G WOVEN G FELTED

DESCRIBE CLEANING PROCEDURES:

X AIR PULSE G SONIC

G REVERSE FLOW G SIMPLE BAG COLLAPSE

G MECHANICAL/SHAKER G RING BAG COLLAPSE

G OTHER

DESCRIBE INCOMING AIR STREAM:

Cement dome

PARTICLE SIZE DISTRIBUTION

SIZE (MICRONS)	WEIGHT % OF TOTAL	CUMULATIVE %
0-1		
1-10		
10-25		
25-50		
50-100		
>100		
	TOTAL = 100	

METHOD FOR DETERMINING WHEN TO CLEAN:

G AUTOMATIC G TIMED G MANUAL

METHOD FOR DETERMINING WHEN TO REPLACE THE BAGS:

G ALARM G INTERNAL INSPECTION G VISIBLE EMISSION G OTHER

SPECIAL CONDITIONS:

G MOISTURE BLINDING G CHEMICAL RESISTIVITY G OTHER

EXPLAIN:

DESCRIBE MAINTENANCE PROCEDURES: Regular inspections and maintenance will be performed as recommended by the manufacturer. The only particle size information is PM_{10} and $PM_{2.5}$ fractions per AP-42.

ON A SEPARATE PAGE, ATTACH A DIAGRAM SHOWING THE RELATIONSHIP OF THE CONTROL DEVICE TO ITS EMISSION SOURCE(S):

Attach Additional Sheets As Necessary

FORM C1

CONTROL DEVICE (FABRIC FILTER)

REVISED 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **C1**

CONTROL DEVICE ID NO: CD33	CONTROLS EMISSIONS FROM WHICH EMISSION SOURCE ID NO(S): CHSL
EMISSION POINT (STACK) ID NO(S): E33	POSITION IN SERIES OF CONTROLS NO. 1 OF 1 UNITS
MANUFACTURER: TBD	MODEL NO: TBD
DATE MANUFACTURED: TBD	PROPOSED OPERATION DATE: Nov-13
OPERATING SCENARIO:	PROPOSED START CONSTRUCTION DATE: Mar-11
1 OF 1	P.E. SEAL REQUIRED (PER 2Q .0112)? YES

DESCRIBE CONTROL SYSTEM:

Fabric filter

POLLUTANT(S) COLLECTED:	PM	PM10	PM2.5	
BEFORE CONTROL EMISSION RATE (LB/HR):	NA	NA	NA	
CAPTURE EFFICIENCY:	100 %	100 %	100 %	%
CONTROL DEVICE EFFICIENCY:	99.9 %	99.9 %	99+ %	%
CORRESPONDING OVERALL EFFICIENCY:	99.9 %	99.9 %	99+ %	%
EFFICIENCY DETERMINATION CODE:	4	4	4	
TOTAL EMISSION RATE (LB/HR):	0.12	0.10	0.05	

PRESSURE DROP (IN. H_20): MIN: MAX: TE GAUGE? X YES G NO WARNING ALARM? G YES X NO

BULK PARTICLE DENSITY (LB/FT^3): NA	INLET TEMPERATURE (^{o}F): MIN MA 212
POLLUTANT LOADING RATE: NA G LB/HR G GR/FT^3	OUTLET TEMPERATURE (^{o}F): MIN MA 212
INLET AIR FLOW RATE (ACFM): 1800	FILTER MAX OPERATING TEMP. (^{o}F): TBD

NO. OF COMPARTMENTS: TBD	NO. OF BAGS PER COMPARTMENT: TBD	LENGTH OF BAG (IN.): TBD
DIAMETER OF BAG (IN.): TBD	DRAFT: X INDUCED/NEG. G FORCED/POS.	FILTER SURFACE AREA (FT^2): TBD
AIR TO CLOTH RATIO: TBD	FILTER MATERIAL: TBD	G WOVEN G FELTED

DESCRIBE CLEANING PROCEDURES:

X AIR PULSE G SONIC

G REVERSE FLOW G SIMPLE BAG COLLAPSE

G MECHANICAL/SHAKER G RING BAG COLLAPSE

G OTHER

DESCRIBE INCOMING AIR STREAM:

Cement dome extraction rail

PARTICLE SIZE DISTRIBUTION

SIZE (MICRONS)	WEIGHT % OF TOTAL	CUMULATIVE %
0-1		
1-10		
10-25		
25-50		
50-100		
>100		
	TOTAL = 100	

METHOD FOR DETERMINING WHEN TO CLEAN:

G AUTOMATIC G TIMED G MANUAL

METHOD FOR DETERMINING WHEN TO REPLACE THE BAGS:

G ALARM G INTERNAL INSPECTION G VISIBLE EMISSION G OTHER

SPECIAL CONDITIONS:

G MOISTURE BLINDING G CHEMICAL RESISTIVITY G OTHER

EXPLAIN:

DESCRIBE MAINTENANCE PROCEDURES: Regular inspections and maintenance will be performed as recommended by the manufacturer. The only particle size information is PM_{10} and $PM_{2.5}$ fractions per AP-42.

ON A SEPARATE PAGE, ATTACH A DIAGRAM SHOWING THE RELATIONSHIP OF THE CONTROL DEVICE TO ITS EMISSION SOURCE(S):

Attach Additional Sheets As Necessary

FORM C1

CONTROL DEVICE (FABRIC FILTER)

REVISED 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **C1**

CONTROL DEVICE ID NO: CD34	CONTROLS EMISSIONS FROM WHICH EMISSION SOURCE ID NO(S): CHSL
EMISSION POINT (STACK) ID NO(S): E34	POSITION IN SERIES OF CONTROLS NO. 1 OF 1 UNITS
MANUFACTURER: TBD	MODEL NO: TBD
DATE MANUFACTURED: TBD	PROPOSED OPERATION DATE: Nov-13
OPERATING SCENARIO:	PROPOSED START CONSTRUCTION DATE: Mar-11
1 OF 1	P.E. SEAL REQUIRED (PER 2Q .0112)? YES

DESCRIBE CONTROL SYSTEM:

Fabric filter

POLLUTANT(S) COLLECTED:	PM	PM10	PM2.5	
BEFORE CONTROL EMISSION RATE (LB/HR):	NA	NA	NA	
CAPTURE EFFICIENCY:	100 %	100 %	100 %	%
CONTROL DEVICE EFFICIENCY:	99.9 %	99.9 %	99+ %	%
CORRESPONDING OVERALL EFFICIENCY:	99.9 %	99.9 %	99+ %	%
EFFICIENCY DETERMINATION CODE:	4	4	4	
TOTAL EMISSION RATE (LB/HR):	0.12	0.10	0.05	

PRESSURE DROP (IN. H_20): MIN: MAX: TBD GAUGE? X YES G NO WARNING ALARM? G YES X NO

BULK PARTICLE DENSITY (LB/FT^3): NA	INLET TEMPERATURE (^{o}F): MIN MA 212
POLLUTANT LOADING RATE: NA G LB/HR G GR/FT^3	OUTLET TEMPERATURE (^{o}F): MIN MA 212
INLET AIR FLOW RATE (ACFM): 1800	FILTER MAX OPERATING TEMP. (^{o}F): TBD

NO. OF COMPARTMENTS: TBD	NO. OF BAGS PER COMPARTMENT: TBD	LENGTH OF BAG (IN.): TBD
DIAMETER OF BAG (IN.): TBD	DRAFT: X INDUCED/NEG. G FORCED/POS.	FILTER SURFACE AREA (FT^2): TBD
AIR TO CLOTH RATIO: TBD	FILTER MATERIAL: TBD	G WOVEN G FELTED

DESCRIBE CLEANING PROCEDURES:

X AIR PULSE G SONIC

G REVERSE FLOW G SIMPLE BAG COLLAPSE

G MECHANICAL/SHAKER G RING BAG COLLAPSE

G OTHER

DESCRIBE INCOMING AIR STREAM:

Cement dome extraction truck

PARTICLE SIZE DISTRIBUTION

SIZE (MICRONS)	WEIGHT % OF TOTAL	CUMULATIVE %
0-1		
1-10		
10-25		
25-50		
50-100		
>100		
	TOTAL = 100	

METHOD FOR DETERMINING WHEN TO CLEAN:

G AUTOMATIC G TIMED G MANUAL

METHOD FOR DETERMINING WHEN TO REPLACE THE BAGS:

G ALARM G INTERNAL INSPECTION G VISIBLE EMISSION G OTHER

SPECIAL CONDITIONS:

G MOISTURE BLINDING G CHEMICAL RESISTIVITY G OTHER

EXPLAIN:

DESCRIBE MAINTENANCE PROCEDURES: Regular inspections and maintenance will be performed as recommended by the manufacturer. The only particle size information is PM_{10} and $PM_{2.5}$ fractions per AP-42.

ON A SEPARATE PAGE, ATTACH A DIAGRAM SHOWING THE RELATIONSHIP OF THE CONTROL DEVICE TO ITS EMISSION SOURCE(S):

Attach Additional Sheets As Necessary

FORM C1

CONTROL DEVICE (FABRIC FILTER)

REVISED 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **C1**

CONTROL DEVICE ID NO: CD40	CONTROLS EMISSIONS FROM WHICH EMISSION SOURCE ID NO(S): CHSL
EMISSION POINT (STACK) ID NO(S): E40	POSITION IN SERIES OF CONTROLS NO. 1 OF 1 UNITS
MANUFACTURER: TBD	MODEL NO: TBD
DATE MANUFACTURED: TBD	PROPOSED OPERATION DATE: Nov-13
OPERATING SCENARIO:	PROPOSED START CONSTRUCTION DATE: Mar-11
1 OF 1	P.E. SEAL REQUIRED (PER 2Q .0112)? YES

DESCRIBE CONTROL SYSTEM:

Fabric filter

POLLUTANT(S) COLLECTED:	PM	PM10	PM2.5	
BEFORE CONTROL EMISSION RATE (LB/HR):	NA	NA	NA	
CAPTURE EFFICIENCY:	100 %	100 %	100 %	%
CONTROL DEVICE EFFICIENCY:	99.9 %	99.9 %	99+ %	%
CORRESPONDING OVERALL EFFICIENCY:	99.9 %	99.9 %	99+ %	%
EFFICIENCY DETERMINATION CODE:	4	4	4	
TOTAL EMISSION RATE (LB/HR):	1.53	1.29	0.69	

PRESSURE DROP (IN. H_20): MIN: MAX: TBD GAUGE? X YES G NO WARNING ALARM? G YES X NO

BULK PARTICLE DENSITY (LB/FT^3): NA	INLET TEMPERATURE (^{o}F): MIN MA 212
POLLUTANT LOADING RATE: NA G LB/HR G GR/FT^3	OUTLET TEMPERATURE (^{o}F): MIN MA 212
INLET AIR FLOW RATE (ACFM): 22750	FILTER MAX OPERATING TEMP. (^{o}F): TBD

NO. OF COMPARTMENTS: TBD	NO. OF BAGS PER COMPARTMENT: TBD	LENGTH OF BAG (IN.): TBD
DIAMETER OF BAG (IN.): TBD	DRAFT: X INDUCED/NEG. G FORCED/POS.	FILTER SURFACE AREA (FT^2): TBD
AIR TO CLOTH RATIO: TBD	FILTER MATERIAL: TBD	G WOVEN G FELTED

DESCRIBE CLEANING PROCEDURES:

X AIR PULSE G SONIC

G REVERSE FLOW G SIMPLE BAG COLLAPSE

G MECHANICAL/SHAKER G RING BAG COLLAPSE

G OTHER

DESCRIBE INCOMING AIR STREAM:

Cement silo

PARTICLE SIZE DISTRIBUTION

SIZE (MICRONS)	WEIGHT % OF TOTAL	CUMULATIVE %
0-1		
1-10		
10-25		
25-50		
50-100		
>100		
	TOTAL = 100	

METHOD FOR DETERMINING WHEN TO CLEAN:

G AUTOMATIC G TIMED G MANUAL

METHOD FOR DETERMINING WHEN TO REPLACE THE BAGS:

G ALARM G INTERNAL INSPECTION G VISIBLE EMISSION G OTHER

SPECIAL CONDITIONS:

G MOISTURE BLINDING G CHEMICAL RESISTIVITY G OTHER

EXPLAIN:

DESCRIBE MAINTENANCE PROCEDURES: Regular inspections and maintenance will be performed as recommended by the manufacturer. The only particle size information is PM_{10} and $PM_{2.5}$ fractions per AP-42.

ON A SEPARATE PAGE, ATTACH A DIAGRAM SHOWING THE RELATIONSHIP OF THE CONTROL DEVICE TO ITS EMISSION SOURCE(S):

Attach Additional Sheets As Necessary

FORM C1

CONTROL DEVICE (FABRIC FILTER)

REVISED 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **C1**

CONTROL DEVICE ID NO: CD41	CONTROLS EMISSIONS FROM WHICH EMISSION SOURCE ID NO(S): CHSL
EMISSION POINT (STACK) ID NO(S): E41	POSITION IN SERIES OF CONTROLS NO. 1 OF 1 UNITS
MANUFACTURER: TBD	MODEL NO: TBD
DATE MANUFACTURED: TBD	PROPOSED OPERATION DATE: Nov-13
OPERATING SCENARIO:	PROPOSED START CONSTRUCTION DATE: Mar-11
1 OF 1	P.E. SEAL REQUIRED (PER 2Q .0112)? YES

DESCRIBE CONTROL SYSTEM:

Fabric filter

POLLUTANT(S) COLLECTED:	PM	PM10	PM2.5	
BEFORE CONTROL EMISSION RATE (LB/HR):	NA	NA	NA	
CAPTURE EFFICIENCY:	100 %	100 %	100 %	%
CONTROL DEVICE EFFICIENCY:	99.9 %	99.9 %	99+ %	%
CORRESPONDING OVERALL EFFICIENCY:	99.9 %	99.9 %	99+ %	%
EFFICIENCY DETERMINATION CODE:	4	4	4	
TOTAL EMISSION RATE (LB/HR):	0.09	0.07	0.04	

PRESSURE DROP (IN. H_20): MIN: MAX: TBD GAUGE? X YES G NO WARNING ALARM? G YES X NO

BULK PARTICLE DENSITY (LB/FT^3): NA	INLET TEMPERATURE (^{o}F): MIN MA 212
POLLUTANT LOADING RATE: NA G LB/HR G GR/FT^3	OUTLET TEMPERATURE (^{o}F): MIN MA 212
INLET AIR FLOW RATE (ACFM): 1271	FILTER MAX OPERATING TEMP. (^{o}F): TBD

NO. OF COMPARTMENTS: TBD	NO. OF BAGS PER COMPARTMENT: TBD	LENGTH OF BAG (IN.): TBD
DIAMETER OF BAG (IN.): TBD	DRAFT: X INDUCED/NEG. G FORCED/POS.	FILTER SURFACE AREA (FT^2): TBD
AIR TO CLOTH RATIO: TBD	FILTER MATERIAL: TBD	G WOVEN G FELTED

DESCRIBE CLEANING PROCEDURES:

X AIR PULSE G SONIC

G REVERSE FLOW G SIMPLE BAG COLLAPSE

G MECHANICAL/SHAKER G RING BAG COLLAPSE

G OTHER

DESCRIBE INCOMING AIR STREAM:

Cement silo extration

PARTICLE SIZE DISTRIBUTION

SIZE (MICRONS)	WEIGHT % OF TOTAL	CUMULATIVE %
0-1		
1-10		
10-25		
25-50		
50-100		
>100		
	TOTAL = 100	

METHOD FOR DETERMINING WHEN TO CLEAN:

G AUTOMATIC G TIMED G MANUAL

METHOD FOR DETERMINING WHEN TO REPLACE THE BAGS:

G ALARM G INTERNAL INSPECTION G VISIBLE EMISSION G OTHER

SPECIAL CONDITIONS:

G MOISTURE BLINDING G CHEMICAL RESISTIVITY G OTHER

EXPLAIN:

DESCRIBE MAINTENANCE PROCEDURES: Regular inspections and maintenance will be performed as recommended by the manufacturer. The only particle size information is PM_{10} and $PM_{2.5}$ fractions per AP-42.

ON A SEPARATE PAGE, ATTACH A DIAGRAM SHOWING THE RELATIONSHIP OF THE CONTROL DEVICE TO ITS EMISSION SOURCE(S):

Attach Additional Sheets As Necessary

FORM C1

CONTROL DEVICE (FABRIC FILTER)

REVISED 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **C1**

CONTROL DEVICE ID NO: CD42	CONTROLS EMISSIONS FROM WHICH EMISSION SOURCE ID NO(S): CHSL
EMISSION POINT (STACK) ID NO(S): E42	POSITION IN SERIES OF CONTROLS NO. 1 OF 1 UNITS
MANUFACTURER: TBD	MODEL NO: TBD
DATE MANUFACTURED: TBD	PROPOSED OPERATION DATE: Nov-13
OPERATING SCENARIO:	PROPOSED START CONSTRUCTION DATE: Mar-11
1 OF 1	P.E. SEAL REQUIRED (PER 2Q .0112)? YES

DESCRIBE CONTROL SYSTEM:

Fabric filter

POLLUTANT(S) COLLECTED:	PM	PM10	PM2.5	
BEFORE CONTROL EMISSION RATE (LB/HR):	NA	NA	NA	
CAPTURE EFFICIENCY:	100 %	100 %	100 %	%
CONTROL DEVICE EFFICIENCY:	99.9 %	99.9 %	99+ %	%
CORRESPONDING OVERALL EFFICIENCY:	99.9 %	99.9 %	99+ %	%
EFFICIENCY DETERMINATION CODE:	4	4	4	
TOTAL EMISSION RATE (LB/HR):	0.17	0.15	0.08	

PRESSURE DROP (IN. H_20): MIN: MAX: TBD GAUGE? X YES G NO WARNING ALARM? G YES X NO

BULK PARTICLE DENSITY (LB/FT^3): NA	INLET TEMPERATURE (^{o}F): MIN MA 212
POLLUTANT LOADING RATE: NA G LB/HR G GR/FT^3	OUTLET TEMPERATURE (^{o}F): MIN MA 212
INLET AIR FLOW RATE (ACFM): 2578	FILTER MAX OPERATING TEMP. (^{o}F): TBD

NO. OF COMPARTMENTS: TBD	NO. OF BAGS PER COMPARTMENT: TBD	LENGTH OF BAG (IN.): TBD
DIAMETER OF BAG (IN.): TBD	DRAFT: X INDUCED/NEG. G FORCED/POS.	FILTER SURFACE AREA (FT^2): TBD
AIR TO CLOTH RATIO: TBD	FILTER MATERIAL: TBD	G WOVEN G FELTED

DESCRIBE CLEANING PROCEDURES:

X AIR PULSE G SONIC

G REVERSE FLOW G SIMPLE BAG COLLAPSE

G MECHANICAL/SHAKER G RING BAG COLLAPSE

G OTHER

DESCRIBE INCOMING AIR STREAM:

Cement transport

PARTICLE SIZE DISTRIBUTION

SIZE (MICRONS)	WEIGHT % OF TOTAL	CUMULATIVE %
0-1		
1-10		
10-25		
25-50		
50-100		
>100		
	TOTAL = 100	

METHOD FOR DETERMINING WHEN TO CLEAN:

G AUTOMATIC G TIMED G MANUAL

METHOD FOR DETERMINING WHEN TO REPLACE THE BAGS:

G ALARM G INTERNAL INSPECTION G VISIBLE EMISSION G OTHER

SPECIAL CONDITIONS:

G MOISTURE BLINDING G CHEMICAL RESISTIVITY G OTHER

EXPLAIN:

DESCRIBE MAINTENANCE PROCEDURES: Regular inspections and maintenance will be performed as recommended by the manufacturer. The only particle size information is PM_{10} and $PM_{2.5}$ fractions per AP-42.

ON A SEPARATE PAGE, ATTACH A DIAGRAM SHOWING THE RELATIONSHIP OF THE CONTROL DEVICE TO ITS EMISSION SOURCE(S):

Attach Additional Sheets As Necessary

FORM C1

CONTROL DEVICE (FABRIC FILTER)

REVISED 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **C1**

CONTROL DEVICE ID NO: CD43	CONTROLS EMISSIONS FROM WHICH EMISSION SOURCE ID NO(S): CHSL
EMISSION POINT (STACK) ID NO(S): E43	POSITION IN SERIES OF CONTROLS NO. 1 OF 1 UNITS
MANUFACTURER: TBD	MODEL NO: TBD
DATE MANUFACTURED: TBD	PROPOSED OPERATION DATE: Nov-13
OPERATING SCENARIO:	PROPOSED START CONSTRUCTION DATE: Mar-11
1 OF 1	P.E. SEAL REQUIRED (PER 2Q .0112)? YES

DESCRIBE CONTROL SYSTEM:

Fabric filter

POLLUTANT(S) COLLECTED:	PM	PM10	PM2.5	
BEFORE CONTROL EMISSION RATE (LB/HR):	NA	NA	NA	
CAPTURE EFFICIENCY:	100 %	100 %	100 %	%
CONTROL DEVICE EFFICIENCY:	99.9 %	99.9 %	99+ %	%
CORRESPONDING OVERALL EFFICIENCY:	99.9 %	99.9 %	99+ %	%
EFFICIENCY DETERMINATION CODE:	4	4	4	
TOTAL EMISSION RATE (LB/HR):	0.50	0.42	0.22	

PRESSURE DROP (IN. H_20): MIN: MAX: TBD GAUGE? X YES G NO WARNING ALARM? G YES X NO

BULK PARTICLE DENSITY (LB/FT^3): NA	INLET TEMPERATURE (^oF): MIN MA 212
POLLUTANT LOADING RATE: NA G LB/HR G GR/FT^3	OUTLET TEMPERATURE (^oF): MIN MA 212
INLET AIR FLOW RATE (ACFM): 7416	FILTER MAX OPERATING TEMP. (^oF): TBD

NO. OF COMPARTMENTS: TBD	NO. OF BAGS PER COMPARTMENT: TBD	LENGTH OF BAG (IN.): TBD
DIAMETER OF BAG (IN.): TBD	DRAFT: X INDUCED/NEG. G FORCED/POS.	FILTER SURFACE AREA (FT^2): TBD
AIR TO CLOTH RATIO: TBD	FILTER MATERIAL: TBD	G WOVEN G FELTED

DESCRIBE CLEANING PROCEDURES:

X AIR PULSE G SONIC
G REVERSE FLOW G SIMPLE BAG COLLAPSE
G MECHANICAL/SHAKER G RING BAG COLLAPSE
G OTHER

DESCRIBE INCOMING AIR STREAM:

Packing plant

PARTICLE SIZE DISTRIBUTION

SIZE (MICRONS)	WEIGHT % OF TOTAL	CUMULATIVE %
0-1		
1-10		
10-25		
25-50		
50-100		
>100		
	TOTAL = 100	

METHOD FOR DETERMINING WHEN TO CLEAN:

G AUTOMATIC G TIMED G MANUAL

METHOD FOR DETERMINING WHEN TO REPLACE THE BAGS:

G ALARM G INTERNAL INSPECTION G VISIBLE EMISSION G OTHER

SPECIAL CONDITIONS:

G MOISTURE BLINDING G CHEMICAL RESISTIVITY G OTHER

EXPLAIN:

DESCRIBE MAINTENANCE PROCEDURES: Regular inspections and maintenance will be performed as recommended by the manufacturer. The only particle size information is PM_{10} and $PM_{2.5}$ fractions per AP-42.

ON A SEPARATE PAGE, ATTACH A DIAGRAM SHOWING THE RELATIONSHIP OF THE CONTROL DEVICE TO ITS EMISSION SOURCE(S):

Attach Additional Sheets As Necessary

FORM C1

CONTROL DEVICE (FABRIC FILTER)

REVISED 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **C1**

CONTROL DEVICE ID NO: CD-P30	CONTROLS EMISSIONS FROM WHICH EMISSION SOURCE ID NO(S): CHSL
EMISSION POINT (STACK) ID NO(S): ES-R33	POSITION IN SERIES OF CONTROLS NO. 1 OF 1 UNITS
MANUFACTURER: TBD	MODEL NO: TBD
DATE MANUFACTURED: TBD	PROPOSED OPERATION DATE: Nov-13
OPERATING SCENARIO:	PROPOSED START CONSTRUCTION DATE: Nov-09
1 OF 1	P.E. SEAL REQUIRED (PER 2Q .0112)? NO

DESCRIBE CONTROL SYSTEM:

Fabric filter

POLLUTANT(S) COLLECTED:	PM	PM10	PM2.5	
BEFORE CONTROL EMISSION RATE (LB/HR):	NA	NA	NA	
CAPTURE EFFICIENCY:	100 %	100 %	100 %	%
CONTROL DEVICE EFFICIENCY:	99.9 %	99.9 %	99+ %	%
CORRESPONDING OVERALL EFFICIENCY:	99.9 %	99.9 %	99+ %	%
EFFICIENCY DETERMINATION CODE:	4	4	4	
TOTAL EMISSION RATE (LB/HR):	0.13	0.11	0.06	

PRESSURE DROP (IN. H_20): MIN: MAX: TBD GAUGE? X YES G NO WARNING ALARM? G YES X NO	
BULK PARTICLE DENSITY (LB/FT^3): NA	INLET TEMPERATURE (^oF): MIN MA 212
POLLUTANT LOADING RATE: NA G LB/HR G GR/FT^3	OUTLET TEMPERATURE (^oF): MIN MA 212
INLET AIR FLOW RATE (ACFM): 1500	FILTER MAX OPERATING TEMP. (^oF): TBD

NO. OF COMPARTMENTS: TBD	NO. OF BAGS PER COMPARTMENT: TBD	LENGTH OF BAG (IN.): TBD
DIAMETER OF BAG (IN.): TBD	DRAFT: X INDUCED/NEG. G FORCED/POS.	FILTER SURFACE AREA (FT^2): TBD
AIR TO CLOTH RATIO: TBD	FILTER MATERIAL: TBD	G WOVEN G FELTED

DESCRIBE CLEANING PROCEDURES:

X AIR PULSE G SONIC

G REVERSE FLOW G SIMPLE BAG COLLAPSE

G MECHANICAL/SHAKER G RING BAG COLLAPSE

G OTHER

DESCRIBE INCOMING AIR STREAM:

Screw conveyor/truck loadout

PARTICLE SIZE DISTRIBUTION

SIZE (MICRONS)	WEIGHT % OF TOTAL	CUMULATIVE %
0-1		
1-10		
10-25		
25-50		
50-100		
>100		
	TOTAL = 100	

METHOD FOR DETERMINING WHEN TO CLEAN:

G AUTOMATIC G TIMED G MANUAL

METHOD FOR DETERMINING WHEN TO REPLACE THE BAGS:

G ALARM G INTERNAL INSPECTION G VISIBLE EMISSION G OTHER

SPECIAL CONDITIONS:

G MOISTURE BLINDING G CHEMICAL RESISTIVITY G OTHER

EXPLAIN:

DESCRIBE MAINTENANCE PROCEDURES: Regular inspections and maintenance will be performed as recommended by the manufacturer. The only particle size information is PM_{10} and $PM_{2.5}$ fractions per AP-42.

ON A SEPARATE PAGE, ATTACH A DIAGRAM SHOWING THE RELATIONSHIP OF THE CONTROL DEVICE TO ITS EMISSION SOURCE(S):

Attach Additional Sheets As Necessary

FORM C6

CONTROL DEVICE (GASEOUS ABSORBER)

REVISED 11/29/01 **NR/Division of Air Quality - Application for Air Permit to Construct/C** **C6**

AS REQUIRED 15A NCAC 2Q .0112, THIS FORM MUST BE SEALED BY A PROFESSIONAL ENGINEER (P.E.) LICENSED IN NORTH CAROLINA.

CONTROL DEVICE ID NO: CD44S	CONTROLS EMISSIONS FROM WHICH EMISSION SOURCE ID NO(S): KS
EMISSION POINT ID NO(S): E44	POSITION IN SERIES OF CONTROLS: NO. 4 OF 4 UNITS
MANUFACTURER: TBD	MODEL NO: TBD
DATE MANUFACTURED: TBD	PROPOSED OPERATION DATE: Nov-13
OPERATING SCENARIO:	PROPOSED CONSTRUCTION DATE Mar-11
___1____ OF __1____	

DESCRIBE CONTROL SYSTEM:

A wet scrubber will be installed (after the ACI filter) to control SO2 emissions from the kiln system during both raw mill-on and raw mill-off operating modes. The scrubber will be vented to the main kiln stack.

The scrubber is also expected to provide incidental control of HCl, mercury, and condensible PM emissions.

POLLUTANT(S) COLLECTED:	SO2	HCl			
BEFORE CONTROL EMISSION RATE (LB/HR):	~1,075	~7.18			(SO2 at preheater exit)
CAPTURE EFFICIENCY:	100 %	100 %	%		
CONTROL DEVICE EFFICIENCY:	90.7* %	69.8 %	%		*SO2 control % includes scrubbing effect of the raw mill when operating
CORRESPONDING EFFICIENCY:	90.7 %	69.8 %	%		
EFFICIENCY DETERMINATION CODE:	4	4			
TOTAL EMISSION RATE (LB/HR):	100.00	2.17			(30 day ave rates)

PRESSURE DROP (IN. H_20): MIN 4 MAX 10	WARNING ALARM? ☐ YES ☐ NO
INLET TEMPERATURE (^oF): MIN 193 MAX 539	OUTLET TEMPERATURE (^oF): MIN 131 MAX 139
INLET AIR FLOW RATE (ACFM): 715000 / 846757	GAS VELOCITY (FT/SEC): 8.3
TOTAL GAS PRESSURE (PSIG): 0.72	GAS DEW POINT (^oF): TBD

TYPE OF SYSTEM: Spray Tower

PACKED COLUMN	TYPE OF PACKING:	COLUMN LENGTH (FT):	COLUMN DIAMETER (FT):
PLATE COLUMN	PLATE SPACING (INCHES):	COLUMN LENGTH (FT):	COLUMN DIAMETER (FT):

ADDITIVE LIQUID SCRUBBING MEDIUI	Water / CaCO3	PERCENT RECIRCULATE	95
MINIMUM LIQUID INJECTION RATE (GAL/MIN):	46,000	MAKE UP RATE (GAL/MIN	50 FOR ADDITIVE (GAL/MIN): TBD
pH RANGE: 5.5 - 6.5		METHOD pH MONITORING: Probe	

DESCRIBE MAINTENANCE PROCEDURES:

Inspections and maintenance will be performed as recommended by the manufacturer.

The unit be included in the O&M plan required pursuant to 40 CFR 63.1347.

DESCRIBE ANY FIRE DETECTION DEVICES AND ANY MEANS OF FIRE SUPPRESSION:

N/A

DESCRIBE ANY MONITORING DEVICES, GAUGES, TEST PORTS, ETC:

Pressure drop guage and pH probe. SO2 will be monitored by CERM at the stack

ATTACH A DIAGRAM OF THE RELATIONSHIP OF CONTROL DEVICE TO ITS EMISSION SOURCE(S):

See Process Flow Diagram

Attach Additional Sheets As Necessary

FORM C9

CONTROL DEVICE (OTHER)

REVISED 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **C9**

CONTROL DEVICE ID NO: CD44N	CONTROLS EMISSIONS FROM WHICH EMISSION SOURCE ID NO(S): KS
EMISSION POINT (STACK) ID NO(S): E44	POSITION IN SERIES OF CONTROLS NO. 1 OF 4 UNITS
MANUFACTURER: TBD	MODEL NO: TBD
DATE MANUFACTURED: TBD	PROPOSED OPERATION DATE: Nov-13
OPERATING SCENARIO:	PROPOSED START CONSTRUCTION DATE Mar-11
1 OF 1	P.E. SEAL REQUIRED (PER 2Q .0112)? YES

DESCRIBE CONTROL SYSTEM:

A selective non-catalytic reduction (SNCR) system will be installed in the preheater area of the kiln system to control NOx emissions. The system will inject an ammonia-containing solution into the process where kiln feed and combustion gases mix in countercurrent flow. The system may be operated at a variable input rate (TBD) as necessary to limit NOx emissions and minimize ammonia slip.

POLLUTANT(S) COLLECTED:	NOx			
BEFORE CONTROL EMISSION RATE (LB/HR):	~700			
CAPTURE EFFICIENCY:	100 %	%	%	%
CONTROL DEVICE EFFICIENCY:	46 %	%	%	%
CORRESPONDING OVERALL EFFICIENCY:	46 %	%	%	%
EFFICIENCY DETERMINATION CODE:	4			
TOTAL EMISSION RATE (LB/HR):	375.00			

PRESSURE DROP (IN. H_20): MIN NA MAX NA	BULK PARTICLE DENSITY (LB/FT^3) NA
INLET TEMPERATURE (^oF): MIN MAX	OUTLET TEMPERATURE (^oF): MIN NA MAX NA
INLET AIR FLOW RATE (ACFM): TBD	OUTLET AIR FLOW RATE (ACFM): NA
INLET AIR FLOW VELOCITY (FT/SE TBD	OUTLET AIR FLOW VELOCITY (FT/SEC): NA
INLET MOISTURE CONTENT (%): TBD	☝ FORCED AIR ☝ INDUCED AIR
COLLECTION SURFACE AREA (FT^2 NA	FUEL USED: None / FUEL USAGE RATE: NA

DESCRIBE STARTUP PROCEDURES:

Manufacturers recommendations will be followed.

DESCRIBE MAINTENANCE PROCEDURES:

Regular inspections and maintenance will be performed as recommended by the manufacturer.

DESCRIBE ANY AUXILIARY MATERIALS INTRODUCED INTO THE CONTROL SYSTEM:

Aqueous ammonia (<20%) or equivalent

DESCRIBE ANY MONITORING DEVICES, GAUGES, TEST PORTS, ETC:

SNCR injection rate will be continuously monitored. NOx will be monitored by CERM at the stack.

ATTACH A DIAGRAM OF THE RELATIONSHIP OF THE CONTROL DEVICE TO ITS EMISSION SOURCE(S):

The SNCR system is located at the Preheater Tower (E13) on the CCC overall plant process flow diagram.

Attach manufacturer's specifications, schematics, and all other drawings necessary to describe this control.

Attach Additional Sheets As Necessary

FORM D1

FACILITY-WIDE EMISSIONS SUMMARY

REVISED 12/01/01 **NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate** **D1**

CRITERIA AIR POLLUTANT EMISSIONS INFORMATION - FACILITY-WIDE

	EXPECTED ACTUAL EMISSIONS (AFTER CONTROLS / LIMITATIONS)	POTENTIAL EMISSION (BEFORE CONTROLS LIMITATIONS)	POTENTIAL EMISSIONS (AFTER CONTROLS / LIMITATIONS)
AIR POLLUTANT EMITTED	tons/yr	tons/yr	tons/yr
PARTICULATE MATTER (PM)	332.92	NA	332.92
PARTICULATE MATTER < 10 MICRONS (PM_{10})	239.06	NA	239.06
PARTICULATE MATTER < 2.5 MICRONS ($PM_{2.5}$)	160.27	NA	160.27
SULFUR DIOXIDE (SO2)	438.00	2880.4	438.00
NITROGEN OXIDES (NOx)	1,645.28	3068.8	1,645.28
CARBON MONOXIDE (CO)	3,067.54	NA	3,067.54
VOLATILE ORGANIC COMPOUNDS (VOC)	175.24	NA	175.24
LEAD	0.086	NA	0.086
OTHER			

HAZARDOUS AIR POLLUTANT EMISSIONS INFORMATION - FACILITY-WIDE

		EXPECTED ACTUAL EMISSIONS (AFTER CONTROLS / LIMITATIONS)	POTENTIAL EMISSION (BEFORE CONTROLS LIMITATIONS)	POTENTIAL EMISSIONS (AFTER CONTROLS / LIMITATIONS)
HAZARDOUS AIR POLLUTANT EMITTED	CAS NO.	tons/yr	tons/yr	tons/yr
Arsenic	ASC	1.48E-02	NA	1.48E-02
Benzene	71432	3.40E+00	NA	3.40E+00
Beryllium	BEC	9.17E-04	NA	9.17E-04
Cadmium	CDC	2.57E-03	NA	2.57E-03
Chromium (Total)	CRC	1.61E-01	NA	1.61E-01
Formaldehyde	50000	5.04E-01	NA	5.04E-01
Hydrogen Chloride	7647010	9.50E+00	3.14E+01	9.50E+00
Manganese	MNC	9.72E-01	NA	9.72E-01
Mercury	HGC	2.30E-02	1.64E-01	2.30E-02

TOXIC AIR POLLUTANT EMISSIONS INFORMATION - FACILITY-WIDE

INDICATE REQUESTED ACTUAL EMISSIONS AFTER CONTROLS / LIMITATIONS. EMISSIONS ABOVE THE TOXIC PERMIT EMISSION RATE (TPER) IN 15A NCAC 2Q .0711 MAY REQUIRE AIR DISPERSION MODELING. USE NETTING FORM D2 IF NECESSARY.

					Modeling Required ?		
TOXIC AIR POLLUTANT EMITTED	CAS NO.	lb/hr	lb/day	lb/year	Yes	No	
Ammonia	7664417	2.50E+00	6.00E+01	2.19E+04	X		
Arsenic	ASC	3.38E-03	8.10E-02	2.96E+01	X		
Benzene	71432	7.81E-01	1.87E+01	6.79E+03	X		
Beryllium	BEC	2.09E-04	5.02E-03	1.83E+00	X		
Cadmium	CDC	5.86E-04	1.41E-02	5.13E+00	X		
Cr (VI) (Bioavailable Chromate Pigments)	BioCR6	1.69E-04	4.05E-03	1.48E+00	X		
Cr (VI) (Soluble Chromate Compounds)	SolCR6	3.86E-03	9.28E-02	3.39E+01	X		
Fluorides	16984488	2.25E-01	5.40E+00	1.97E+03	X		
Formaldehyde	50000	1.16E-01	2.77E+00	1.01E+03	X		
Hydrogen Chloride	7647010	3.62E+00	8.69E+01	1.90E+04	X		
Manganese	MNC	2.22E-01	5.33E+00	1.94E+03	X		
Mercury	HGC	1.88E-02	4.50E-01	4.60E+01	X		

COMMENTS:

See attached spreadsheet for additional HAP and TAP emissions (those not requiring modeling).

Attach Additional Sheets As Necessary

FORM D4

EXEMPT AND INSIGNIFICANT ACTIVITIES SUMMARY

ACTIVITIES EXEMPTED PER 2Q .0102 OR
INSIGNIFICANT ACTIVITIES PER 2Q .0503 FOR TITLE V SOURCES

	DESCRIPTION OF EMISSION SOURCE	SIZE OR PRODUCTION RATE	BASIS FOR EXEMPTION OR INSIGNIFICANT ACTIVITY
1.	Maintenance activities	NA	2Q .0102 (c)(1)(A)
2.	Air conditioning equipment	NA	2Q .0102 (c)(1)(B)
3.	Laboratory activities	NA	2Q .0102 (c)(1)(C)
4.	Storage tanks for fuel oils, etc.	NA	2Q .0102 (c)(1)(D)(i)
5.	Space and hot water heaters	NA	2Q .0102 (c)(1)(E)
6.	Diesel, kerosene, etc. dispensing equipment	NA	2Q .0102 (c)(1)(H)
7.	Motor vehicles, non-road engines, and portable generators	NA	2Q .0102 (c)(1)(L)(i)-(iii)
8.	Storage tanks for organic liquids meeting listed criteria	< Applicable thresholds	2Q .0102 (c)(2)(A)
9.	Emergency and portable generators and other internal combustion engines meeting listed criteria	< Applicable thresholds	2Q .0102 (c)(2)(B)(v) and (vi)
10.	Storage tanks for aqueous ammonia (<20%) solution	NA	2Q .0102 (c)(1)(D)(iii)

Attach Additional Sheets As Necessary

FORM D

TECHNICAL ANALYSIS TO SUPPORT PERMIT APPLICATION

PROVIDE DETAILED TECHNICAL CALCULATIONS TO SUPPORT ALL EMISSION, CONTROL, AND REGULATORY DEMONSTRATIONS MADE IN THIS APPLICATION. INCLUDE A COMPREHENSIVE PROCESS FLOW DIAGRAM AS NECESSARY TO SUPPORT AND CLARIFY CALCULATIONS AND ASSUMPTIONS. ADDRESS THE FOLLOWING SPECIFIC ISSUES ON SEPARATE PAGES:

A **SPECIFIC EMISSIONS SOURCE (EMISSION INFORMATION) (FORM B) -** SHOW CALCULATIONS USED, INCLUDING EMISSION FACTORS, MATERIAL BALANCES, AND/OR OTHER METHODS FROM WHICH THE POLLUTANT EMISSION RATES IN THIS APPLICATION WERE DERIVED. INCLUDE CALCULATION OF POTENTIAL BEFORE AND, WHERE APPLICABLE, AFTER CONTROLS. CLEARLY STATE ANY ASSUMPTIONS MADE AND PROVIDE ANY REFERENCES AS NEEDED TO SUPPORT MATERIAL BALANCE CALCULATIONS.

B **SPECIFIC EMISSION SOURCE (REGULATORY INFORMATION)(FORM E2 - TITLE V ONLY) -** PROVIDE AN ANALYSIS OF ANY REGULATIONS APPLICABLE TO INDIVIDUAL SOURCES AND THE FACILITY AS A WHOLE. INCLUDE A DISCUSSION OUTING METHODS (e.g. FOR TESTING AND/OR MONITORING REQUIREMENTS) FOR COMPLYING WITH APPLICABLE REGULATIONS, PARTICULARLY THOSE REGULATIONS LIMITING EMISSIONS BASED ON PROCESS RATES OR OTHER OPERATIONAL PARAMETERS. PROVIDE JUSTIFICATION FOR AVOIDANCE OF ANY FEDERAL REGULATIONS (PREVENTION OF SIGNIFICANT DETERIORATION (PSD), NEW SOURCE PERFORMANCE STANDARDS (NSPS), NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS (NESHAPS), TITLE V), INCLUDING EXEMPTIONS FROM THE FEDERAL REGULATIONS WHICH WOULD OTHERWISE BE APPLICABLE TO THIS FACILITY. SUBMIT ANY REQUIRED TO DOCUMENT COMPLIANCE WITH ANY REGULATIONS. INCLUDE EMISSION RATES CALCULATED IN ITEM "A" ABOVE, DATES OF MANUFACTURE, CONTROL EQUIPMENT, ETC. TO SUPPORT THESE CALCULATIONS.

C **CONTROL DEVICE ANALYSIS (FORM C) -** PROVIDE A TECHNICAL EVALUATION WITH SUPPORTING REFERENCES FOR ANY CONTROL EFFICIENCIES LISTED ON SECTION C FORMS, OR USED TO REDUCE EMISSION RATES IN CALCULATIONS UNDER ITEM "A" ABOVE. INCLUDE PERTINENT OPERATING PARAMETERS (e.g. OPERATING CONDITIONS, MANUFACTURING RECOMMENDATIONS, AND PARAMETERS AS APPLIED FOR IN THIS APPLICATION) CRITICAL TO ENSURING PROPER PERFORMANCE OF THE CONTROL DEVICES). INCLUDE AND LIMITATIONS OR MALFUNCTION POTENTIAL FOR THE PARTICULAR CONTROL DEVICES AS EMPLOYED AT THIS FACILITY. DETAIL PROCEDURES FOR ASSURING PROPER OPERATION OF THE CONTROL DEVICE INCLUDING MONITORING SYSTEMS AND MAINTENANCE TO BE PERFORMED.

D **PROCESS AND OPERATIONAL COMPLIANCE ANALYSIS - (FORM E3 - TITLE V ONLY)**- SHOWING HOW COMPLIANCE WILL BE ACHIEVED WHEN USING PROCESS, OPERATIONAL, OR OTHER DATA TO DEMONSTRATE COMPLIANCE. REFER TO COMPLIANCE REQUIREMENTS IN THE REGULATORY ANALYSIS IN ITEM "B" WHERE APPROPRIATE. LIST ANY CONDITIONS OR PARAMETERS THAT CAN BE MONITORED AND REPORTED TO DEMONSTRATE COMPLIANCE WITH THE APPLICABLE REGULATIONS.

E **PROFESSIONAL ENGINEERING SEAL -** PURSUANT TO 15A NCAC 2Q .0112 "APPLICATION REQUIRING A PROFESSIONAL ENGINEERING SEAL," A PROFESSIONAL ENGINEER REGISTERED IN NORTH CAROLINA SHALL BE REQUIRED TO SEAL TECHNICAL PORTIONS OF THIS APPLICATION FOR NEW SOURCES AND MODIFICATIONS OF EXISTING SOURCES. (SEE INSTRUCTIONS FOR FURTHER APPLICABILITY).

I, John P. Carroll Jr., attest that this application for Carolinas Cement Company LLC has been reviewed by me and is accurate, complete and consistent with the information supplied in the engineering plans, calculations, and all other supporting documentation to the best of my knowledge. I further attest that to the best of my knowledge the proposed design has been prepared in accordance with the applicable regulations. Although certain portions of this submittal package may have been developed by other professionals, inclusion of these materials under my seal signifies that I have reviewed this material and have judged it to be consistent with the proposed design. Note: In accordance with NC General Statutes 143-215.6A and 143-215.6B, any person who knowingly makes any false statement, representation, or certification in any application shall be guilty of a Class 2 misdemeanor which may include a fine not to exceed $10,000 as well as civil penalties up to $25,000 per violation.

(PLEASE USE BLUE INK TO COMPLETE THE FOLLOWING)

NAME: _____

DATE: _____

COMPANY: _____

ADDRESS: _____

TELEPHONE: _____

SIGNATURE: _____

PAGES CERTIFIED: _____

_____

_____

_____

(IDENTIFY ABOVE EACH PERMIT FORM AND ATTACHMENT THAT IS BEING CERTIFIED BY THIS SEAL)

PLACE NORTH CAROLINA SEAL HERE

Attach Additional Sheets As Necessary