OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY
OREGON TITLE V OPERATING PERMIT REVIEW REPORT

Ash Grove Cement Company
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PSEL	SOURCE			AMB	COMPL	SPEC	REPORT				EXCESS					SIZE	
CRED	TEST	COMS	CEMS	MON	SCHED	COND	A	S	Q	M	R	N	NSPS	NSR	PSD		TV
	X	X	X				X	X			X		X		X		X

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LIST OF ABBREVIATIONS USED IN THIS REVIEW REPORT

ACDP	Air Contaminant Discharge Permit
AMB	Ambient
AQMA	Air quality management area
ASTM	American Society of Testing and Materials
BACT	Best Available Control Technology
Btu	British Thermal Unit
CEMS	Continuous emissions monitoring system
CFR	Code of Federal Regulations
CMS	Continuous monitoring system
CO	Carbon monoxide
COMPL	Compliance
COMS	Continuous opacity monitoring system
COND	Condition
CRED	Credit
DEQ	Oregon Department of Environmental Quality
dscf	dry standard cubic feet
dscm	dry standard cubic meter
EF	Emission factor
EPA	United State Environmental Protection Agency
EU	Emissions unit
GJ	Giga-Joule (10^9 Joules)
gr/dscf	grains per dry standard cubic feet
HAP	Hazardous air pollutants
hr	hour
ID	Identification number
IEU	Insignificant Emission Units
I&M	Inspection and maintenance
kg	Kilogram (10^3 grams)
lb	Pound
MACT	Maximum Achievable Control Technology
Mg	Mega-gram (10^6 grams)
mg	milli-gram (10^{-3} grams)
MON	Monitoring
NA	Not applicable
NAAQS	National Ambient Air Quality Standard
NESHAP	National Emission Standard for Hazardous Air Pollutants
ng	Nanogram (10^{-9} gram)
NOA	Notice of Approval
NO_x	Oxides of nitrogen
NSPS	New source performance standard
NSR	New source review
O_2	Oxygen
OAR	Oregon Administrative Rules
ORS	Oregon Revised Statutes
O&M	Operation and maintenance
Pb	Lead
PCD	Pollution Control Device
PM	Particulate matter
PM_{10}	Particulate matter less than 10 microns in size
PSD	Prevention of significant deterioration
PSEL	Plant Site Emission Limit
SAQIL	Significant Air Quality Impact Level
SER	Significant Emission Rate
SPEC	Special
SO_2	Sulfur dioxide
ST	Source test
TEQ	Toxicity Equivalence
VE	Visible emissions
VMT	Vehicle mile traveled
VOC	Volatile organic compound

INTRODUCTION

1. This is a renewal of the Oregon Title V Operating Permit No. 01-0029 for Ash Grove Cement Company that was issued on July 3, 1995, modified on February 26, 1998 and scheduled to expire on January 1, 2000. A complete and timely renewal application was submitted by the permittee, so the existing permit will remain in effect until this renewal is issued.

   In accordance with OAR 340-218-0120(1)(f), this review report is intended to provide the legal and factual basis for permit conditions. In most cases, the legal basis for a condition is included in the permit by citing the applicable regulation. In addition, the factual basis for the requirement may be the same as the legal basis. However, when the regulation is not specific and only provides general requirements, this review report is used to provide a more thorough explanation of the factual basis for the draft permit conditions.

PERMITTEE IDENTIFICATION

2. Ash Grove Cement Company operates a portland cement plant and supporting quarry near Durkee. Development of the quarry began in 1953 and has continued to the present. Construction of the cement plant began in July 1977. The quarry and cement plant operated under separate state Air Contaminant Discharge Permits (ACDP) until July 1995, when a Title V Operating Permit was issued which combined the cement plant and quarry operations under one permit.

FACILITY DESCRIPTION

3. In the cement process, limestone, clay, and shale from the quarry are mixed with other materials for processing into portland cement. The raw materials are ground to a fine powder and pre-heated, calcined, and reacted at high temperatures to form an intermediate product called clinker. The clinker is mixed with gypsum and ground to produce portland cement. Heat is provided by burning fossil and waste fuels.

EMISSIONS UNIT AND POLLUTION CONTROL DEVICE IDENTIFICATION

4. For identification purposes, the sources of air contaminants have been grouped in emissions units which correspond to their function in the cement making process. Many emission sources have been removed, replaced or modified since the baseline year (1977). Baghouses have been added to many emission points. Many units from the quarry have been recently replaced. These units are given a separate unit designation to distinguish between these new sources and other existing sources. The emissions units, devices, activities, and pollution control devices at the facility include the following:

   4.a. <u>Unit RM: Raw Material Grinding, Handling & Storage</u>

   Limestone, clay and shale are conveyed from the quarry and stored in silos to await crushing in a roller mill. Iron ore is also brought in from off-site and stored in a silo.

   Raw materials are conveyed from silos to a Fuller Loesche roller mill. Hot gas from the preheat towers is passed through the roller mill to dry the material to a product moisture of less than 1.0%. A combination of water sprays in the mill and a separate spray tower are used to condition the gas prior to passing through the 431.BF1 baghouse, which is included in emission unit OA.

ID	Description	Control Device
341.BF1	Limestone, iron ore and shale storage silos	Baghouse
351.BF1	Raw material conveyors	Baghouse
351.BF2	Raw material conveyors	Baghouse
371.BF1	Raw meal conveyors	Baghouse

4.b. Unit HO: Kiln Feed Handling & Storage

Meal from the roller mill is blended and stored in two silos. The blended material is fed to the calciner and kiln through two preheat towers.

ID	Description	Control Device
411.BF1	Air slide for the raw mix into blend silos	Baghouse
421.BF3	Kiln feed system for preheat tower #1[1] (alleviator)	Baghouse
421.BF2	Kiln feed system for preheat tower #2 (alleviator)	Baghouse
421.BF1	Kiln feed system (ground level)	Baghouse

1. Equipment has been controlled since baseline and is part of Emissions Unit HO'.

4.c. Unit OA: Pyroprocessing

The pyroprocessing line is designed to produce approximately 940,000 tons of clinker per year. Kiln feed from the roller mill flows through the first three stages of two parallel preheat towers into a calciner. Fuel burned in the calciner achieves approximately 90% of the total material calcination. The calciner is designed with a 3.2 second retention time to ensure proper combustion of coal or natural gas. From the calciner, the feed passes through the final stage of the preheat towers before entering the kiln.

In the kiln, the feed is further calcined and reacted into clinker. The kiln is permitted to burn coal, natural gas, fuel oil, used oil, whole tires, and non-hazardous wastes. Whole tires are introduced at the kiln entrance and flow concurrently with the feed. The remaining fuels are combusted at the kiln exit so that the flow of combustion gases is counter to the direction of the feed flow. Hot clinker at 2500°F - 2640°F exits the kiln into a reciprocating grate cooler (Unit CC).

The combustion air required in the kiln and calciner is preheated as it passes through the reciprocating grate cooler. The exhaust gases from the in-line calciner and separate calciner/preheater are mixed before passing through the two preheat towers. The exhaust gas is then conditioned, dedusted in a baghouse 431.BF1 and vented directly to the main stack about 10% of the operating time. The remainder of the kiln operating time the exhaust gases are used to dry the raw materials and raw coal in the roller mill and coal mill respectively. During normal operation about 90% of the gases pass through the roller mill to the baghouse 431.BF1. The remaining gases pass through the coal mill to baghouse 476.BF3. Both baghouses vent to the main stack.

ID	Description	Control Device
431.BF1	Kiln/Roller mill system	Baghouse
476.BF3	Coal mill system	Baghouse

4.d. Unit CC: Reciprocating Grate Clinker Cooler

A reciprocating grate cooler serves to cool the clinker while heating the combustion air used in the kiln and calciner. The clinker is further cooled in an H-clinker cooler (Unit CM) before transfer to the clinker storage silos.

ID	Description	Control Device
471.BF1	Reciprocating grate clinker cooler vent	Baghouse

4.e. Unit CH: Coal Storage System

Coal can be brought in by rail and stockpiled for later pulverization and use. A Raymond coal mill crushes coal for firing in the kiln and calciner. Pulverized coal for the kiln is stored in bins.

ID	Description	Control Device
476.BF1	Raw coal bin	Baghouse
476.BF2	Raw coal bin	Baghouse
476.BF4	Pulverized coal bin for kiln	Baghouse

4.f. Unit KG: Coal, Gypsum and Clinker Handling System

Coal, gypsum and clinker manufactured elsewhere can be brought in by rail and stockpiled.

ID	Description	Control Device
521.BF1	Rail car unloading hopper[2]	Baghouse
521.BF2	Conveying system for coal, gypsum and clinker silo loading[1,2]	Baghouse
521.BF3	Conveying system for coal, gypsum and clinker silo loading[1,2]	Baghouse
532.BF5	Finish mill feed system[1]	Baghouse
521.BF5	Transfer to outside coal pile	Baghouse

1. Equipment has been controlled since baseline and is part of Emissions unit KG'.
2. Units handle coal as well as gypsum and clinker.

4.g. Unit CM: Clinker Storage and Cement Grinding

Two finish mills grind a mixture of 95% clinker and 5% gypsum into the final product. A high efficiency separator on each finish mill pulls off the finished product and returns coarse material to the finish mills for further grinding.

ID	Description	Control Device
542.BF2	Finish mill #1 vent[1]	Baghouse
542.BF1	Finish mill #1 conveying equipment (elevator, separator, air slides, ...)[1]	Baghouse
532.BF2	Transfer between silo 5 discharge feeder and conveyor	Baghouse
532.BF1	Transfer between silo 3 and silo 6a discharge feeder and CM4 conveyor	Baghouse
532.BF4	Transfer between silo 4 and silo 6 discharge feeder and CM6 conveyor	Baghouse
532.BF3	Transfer between silo 2 discharge feeder and CM6 conveyor	Baghouse
542.BF3	Material handling into finish mill separator	Baghouse
532.BF6	Material conveying into finish mill #1	Baghouse
531.BF1	Material conveying into finish mill #2	Baghouse
541.BF2	Transfer between belt conveyors for material handling to finish mill #2	Baghouse
541.BF1	Separator for finish mill #2	Baghouse
491.BF1	H-Clinker cooler and auxiliaries for clinker	Baghouse
521.BF4	Clinker silo[1]	Baghouse
271.BF1	Limestone and clinker rail car loading spout[1]	Baghouse
491.BF2	Clinker silos[1]	Baghouse

1. Equipment has been controlled since baseline and is part of Emissions unit CM'.

4.h. Unit CP: Cement Handling and Storage

The finished cement is stored until it can be shipped out by rail or truck.

ID	Description	Control Device
611.BF1	Cement silo #1[1]	Baghouse
611.BF2	Cement silo #2[1]	Baghouse
611.BF3	Cement silo #3[1]	Baghouse
611.BF8	Loading bins	Baghouse
622.BF1	Rail car loading spout[1]	Baghouse
621.BF1	Truck loading spout[1]	Baghouse
611.BF4	Cement silo #4	Baghouse
611.BF5	Cement storage dome	Baghouse

1. Equipment has been controlled since baseline and is part of Emissions unit CP'.

4.i. Unit FU2: Plant Fugitive Sources

ID	Description
PT-FU-01	Unpaved roads
PT-FU-09	Paved roads

4.j. Unit FU3: Quarry Fugitive Sources Installed Before 1970

The following sources were installed prior to June 1970 and are subject to a 40% opacity limit.

ID	Description
EP 1	Drilling holes for blasting and exploration
EP 2	Blasting of bedrock
EP 3	Pushing blasted rock from quarry benches to quarry floor
EP 4	Picking up rock from floor for transport to crusher
EP 5	Unpaved road transport (992D FEL) of limestone from quarry face to crusher
EP 6	Haul truck dump into hopper of primary crusher

4.k. CRUSH: Quarry Fugitive Emissions from Crushers

The following sources are crushers subject to the 15% opacity limit of NSPS, Subpart OOO.

ID	Description
EP 7	Primary Crusher (232.CR1 - 42 x 65 Svedala gyratory crusher)
EP 17	Secondary Crusher (252.CR1 Svedala S-4000 cone crusher)
EP 45	Clay/Shale Crusher (271.CR1 Hazmag impact crusher)

4.l. FU-BIN: Quarry Fugitive Emissions from Storage Bins

The following source is subject to the 7% opacity limit and particulate limits of 0.05 g/dscm contained in NSPS, Subpart OOO.

ID	Description
EPCR3	Transfer from screen 331.SN1 to bins 102 and 103

4.m. FU4-A: Quarry Fugitive Emissions Subject to NSPS, Subpart OOO

The following sources are mainly screens and conveyor transfer points (point in conveying operation where material is transferred to or from a belt conveyor except where material is transferred to a stockpile [40 CFR 60.671]) and are subject to the 10% opacity limit of NSPS, Subpart OOO:

ID	Description
EP 8	Transfer between feeder 232.VF1 and belt 232.BC1
EP 9	Transfer from belt 232.BC1 to stacker 232.ST1
EP 12	Transfer from belt 232.BC2 to belt 232.BC3
EP 13	Transfer from belt 232.BC3 to belt 232.BC4
EP 14	Transfer from belt 232.BC4 to belt 252.BC1
EP 15	Vibrating screen S252.SN1
EP 16	Transfer from belt 252.BC2 to secondary crusher hopper 252.HP1
EP 18	Transfer from screen 252.SN1 to belt 252.BC2
EP 19	Transfer from screen 252.SN1 to belt 252.BC3
EP 20	Transfer from screen 252.SN1 to belt 252.BC4
EP 21	Transfer from screen 252.SN1 to belt 252.BC5
EP 22	Transfer from belt 252.BC3 to stacker 252.ST1
EP 25	Transfer from belt 252.BC4 to stacker 252.ST2
EP 28	Transfer from belt 252.BC5 to stacker 252.ST3
EP 34	Transfer from hopper 282.HP1 to belt 282.BC1
EP 35	Transfer from belt 282.BC2 to belt 282.BC1
EP 36	Transfer from belt 282.BC1 to belt 282.BC3
EP 37	Transfer from belt 282.BC3 to belt 341.BC1
EP 40	Transfer from feeder hopper 281.FE1 to belt 281.BC1
EP 41	Transfer from belt 281.BC1 to belt 281.BC4
EP 42	Transfer from belt 281.BC4 to belt 341.BC1
EP 46	Transfer from belt 271.BC1 to belt feeder 271.FE2
EP 47	Transfer from belt feeder 271.FE2 to belt 271.BC2
EP 50	Transfer from belt 271.BC2 to belt 282.BC3
EP 53	Fugitives from coarse HiMag/HiCal/Cap rock reclaimers 232.VF2 through 232.VF8
EP 54	Fugitives from sugar rock reclaimers 282.VF1 through 282.VF5
EP 56	Fugitives from fine HiMag/HiCal rock reclaimers 282.VF6 through 282.VF9
EP 57	Fugitives from fine Cap rock reclaimer 282.VFA
EPCR1	Transfer from belt 341.BC1 to screen 331.SN1
EPCR2	Screen 331.SN1
EPCR4	Transfer from bin 103 to weighbelt 331.BC1
EPCR5	Transfer from belt 331.BC3 to belt 331.BC4
EPCR6	Transfer from belt 331.BC5 to truck
EPCR7	Transfer from bin 102 to weightbelt 331.BC1
EPCR8	Transfer from weighbelt 331.BC1 to belt 331.BC2
EPCR9	Transfer from weigh feeder 331.BC2 to railcar

4.n. Unit FU4-B: Quarry Fugitive Emissions not Subject to NSPS, Subpart OOO

The following sources are not subject to NSPS, Subpart OOO because fugitives from stockpiles, transfers to stockpiles, unpaved roads, and loader activity is not included in the standard.

ID	Description
EP 10	Transfer from stacker 232.ST1 to HiMag/HiCal/Cap rock pile
EP 11	Fugitive emissions from HiMag/HiCal/Cap rock pile
EP 23	Transfer from stacker 252.ST1 to coarse sugar rock storage pile
EP 24	Fugitive emissions from coarse sugar rock pile
EP 26	Transfer from stacker 252.ST2 to fine sugar rock storage pile
EP 27	Fugitive emissions from fine sugar rock pile
EP 29	Transfer from stacker 252.ST3 to HiMag/HiCal/Cap rock storage piles
EP 30	Fugitive emissions from HiMag/HiCal rock storage pile
EP 31	Fugitive emissions from Cap rock storage piles
EP 32	Unpaved road transport of sugar rock, loader (330L FEL)
EP 33	Transfer from sugar rock loader (330L FEL) to hopper 282.HP1
EP 38	Unpaved road transport of shale, clay and limestone (330L FEL)
EP 39	Loader pick-up rock and transfer to 281.FE1 feeder hopper
EP 43	Unpaved road loader transport clay or shale (330L FEL)
EP 44	Transfer from clay/shale loader to hopper 271.HP1
EP 48	Transfer from belt 271.BC2 to clay stockpile
EP 49	Fugitive emissions from clay stockpile
EP 51	Transfer from belt 271.BC2 to shale stockpile
EP 52	Fugitive emissions from shale stockpile
EP 55	Dozing of clay and shale
EPCR10	Unpaved road emissions from sugar rock truck transport

4.o. Unit AI: Aggregate Insignificant

ID	Description
PT-FU-02A	Transfer to and from coal pile
PT-FU-02B	Wind erosion from coal pile
PT-FU-03A	Transfer to and from gypsum pile
PT-FU-03B	Wind erosion from gypsum pile
PT-FU-04A	Transfer to and from iron ore pile
PT-FU-04B	Wind erosion from iron ore pile
PT-FU-05A	Transfer to and from clinker pile
PT-FU-05B	Wind erosion from clinker pile
PT-FU-07	Loadout of chemical grade limestone to rail cars
PT-FU-08	Coal, clinker, gypsum reclaim pit

4.p. Categorically insignificant activities include the following:

- Constituents of a chemical mixture present at less than 1% by weight of any chemical or compound regulated under Divisions 200 through 268 of OAR chapter 340, or less than 0.1% by weight of any carcinogen listed in the U.S. Department of Health and Human Service's Annual Report on Carcinogens when usage of the chemical mixture is less than 100,000 pounds/year
- Evaporative and tail pipe emissions from on-site motor vehicle operation
- Distillate oil, kerosene, and gasoline fuel burning equipment rated at less than or equal to 0.4 million Btu/hr
- Natural gas and propane burning equipment rated at less than or equal to 2.0 million Btu/hr

- Office activities
- Food service activities
- Personal care activities
- Groundskeeping activities including, but not limited to building painting and road and parking lot maintenance
- Instrument calibration
- Maintenance and repair shop
- Automotive repair shops or storage garages
- Air cooling or ventilating equipment not designed to remove air contaminants generated by or released from associated equipment
- Refrigeration systems with less than 50 pounds of charge of ozone depleting substances regulated under Title VI, including pressure tanks used in refrigeration systems but excluding any combustion equipment associated with such systems
- Bench scale laboratory equipment and laboratory equipment used exclusively for chemical and physical analysis, including associated vacuum producing devices but excluding research and development facilities
- Temporary construction activities
- Warehouse activities
- Accidental fires
- Air vents from air compressors
- Air purification systems
- Continuous emissions monitoring vent lines
- Electrical charging stations
- Instrument air dryers and distribution
- Process raw water filtration systems
- Blueprint making
- Routine maintenance, repair, and replacement such as anticipated activities most often associated with and performed during regularly scheduled equipment outages to maintain a plant and its equipment in good operating condition, including but not limited to steam cleaning, abrasive use, and woodworking
- Electric motors
- Storage tanks, reservoirs, transfer and lubricating equipment used for ASTM grade distillate or residual fuels, lubricants, and hydraulic fluids
- On-site storage tanks not subject to any New Source Performance Standards (NSPS), including underground storage tanks (UST), storing gasoline or diesel used exclusively for fueling of the facility's fleet of vehicles
- Natural gas, propane, and liquefied petroleum gas (LPG) storage tanks and transfer equipment
- Pressurized tanks containing gaseous compounds
- Storm water settling basins
- Fire suppression and training
- Health, safety, and emergency response activities
- Emergency generators and pumps used only during loss of primary equipment or utility service
- Combustion source flame safety purging on startup

5. Several changes have been made since the last permit, including changes in emission point nomenclature. The changes are summarized in the table below.

Previous Permit		Proposed Permit		
EU	ID	EU	ID	Comment
PC4	PC2-01	CRUSH	EP 7	New crusher (NOA #018373)
PC20	PC20-02	--	--	Removed (NOA #018373)
QY	QA-07	--	--	Removed (NOA #018373)
RM	351.BF1	CP	611.BF5	Baghouse moved (NOA #017371)
--	--	RM	351.BF1	New baghouse (NOA #017371)
--	--	RM	351.BF2	New baghouse (NOA #017371)

Previous Permit		Proposed Permit		
EU	ID	EU	ID	Comment
OA	431.BF1	OA	431.BF1	New high efficiency membrane bags (NOA #018374)
OA	476.BF2	OA	476.BF3	New high efficiency membrane bags (NOA #018374)
KG	476.BF1	CH	476.BF1	Changed to different EU
CS	486.BF1	CH	476.BF4	Changed to different EU, renamed
--	--	CH	476.BF2	New baghouse (NOA #018374)
--	--	KG	521.BF5	New baghouse (NOA #018374)
CP	611.BF6	CP	611.BF8	Baghouse replaced/renamed (NOA #017371)
FU3	PC-DLG	FU3	EP 1	Renamed (NOA #018373)
	PC-BSG	FU3	EP 2	Renamed (NOA #018373)
	PC-DZG	FU3	EP 3	Renamed (NOA #018373)
	PC-FEL	FU3	EP 4	Renamed (NOA #018373)
	PC0-01	FU3	EP 5	Renamed (NOA #018373)
	PC0-02	--	--	Removed (NOA #018373)
	PC0-03	--	--	Removed (NOA #018373)
	PC0-04	--	--	Removed (NOA #018373)
	PC0-05	--	--	Removed (NOA #018373)
	PC0-06	FU4-B	EPCR10	Renamed (NOA #018373)
	PC0-07	--	--	Removed (NOA #018373)
	PC0-08	FU4-B	EP 43	Renamed (NOA #018373)
	PC0-09	FU4-B	EP 38	Renamed (NOA #018373)
	PC1-01	FU3	EP 6	Renamed (NOA #018373)
	PC3-01	FU4-A	EP 8	Renamed (NOA #018373)
	PC5-01	--	--	Removed (NOA #018373)
	PC6-01	--	--	Removed (NOA #018373)
	PC6-02	FU4-A	EP 15	Renamed (NOA #018373)
	PC7-01	FU4-A	EP 20	Renamed (NOA #018373)
	PC7-03A	FU4-A FU4-B	EP 25 EP 26	Renamed (NOA #018373) Renamed (NOA #018373)
	PC7-03B	--	--	Removed (NOA #018373)
	PC8-01	--	--	Removed (NOA #018373)
	PC9-01	FU4-A	EP 9	Renamed (NOA #018373)
	PC9-03A	FU4-B	EP 10	Renamed (NOA #018373)
	PC9-03B	FU4-B	EP 11	Renamed (NOA #018373)
	PC10-01	--	--	Removed (NOA #018373)
	PC11-01	FU4-A	EP 53	Renamed (NOA #018373)
	PC12-01	--	--	Removed (NOA #018373)
	PC12-02	--	--	Removed (NOA #018373)
	PC12A-01	--	--	Removed (NOA #018373)
	PC13-01	FU4-A	EP 21	Renamed (NOA #018373)
	PC14-01	--	--	Removed (NOA #018373)
	PC14-02	--	--	Removed (NOA #018373)
	PC15-01	--	--	Removed (NOA #018373)
	PC16-01	FU4-A FU4-A	EP 13 EP 14	Renamed (NOA #018373) Renamed (NOA #018373)
	PC16-02	CRUSH	EP 17	New crusher (NOA #018373)
	PC16-03	FU4-A	EP 18	Renamed (NOA #018373)
	PC17-01	--	--	Removed (NOA #018373)
	PC18-01	FU4-A	EP 16	Renamed (NOA #018373)
	PC19-01	--	--	Removed (NOA #018373)

Previous Permit		Proposed Permit		
EU	ID	EU	ID	Comment
FU3	PC19-02	--	--	Removed (NOA #018373)
(cont.)	PC20-01	--	--	Removed (NOA #018373)
	PC21-01	--	--	Removed (NOA #018373)
	PC21-02	--	--	Removed (NOA #018373)
	PC21A-01	--	--	Removed (NOA #018373)
	PC22-01	FU4-A	EP 19	Renamed (NOA #018373)
	PC22-02	--	--	Removed (NOA #018373)
	PC23-01	--	--	Removed (NOA #018373)
	PC23-02	--	--	Removed (NOA #018373)
	PC24-01	--	--	Removed (NOA #018373)
	PC24-03A	FU4-A	EP 34	Renamed (NOA #018373)
	PC24-03B	--	--	Removed (NOA #018373)
	PC25-01	--	--	Removed (NOA #018373)
	PC26-01	--	--	Removed (NOA #018373)
	PC26-03A	FU4-B	EP 32	Renamed (NOA #018373)
		FU4-B	EP 33	Renamed (NOA #018373)
	PC26-03B	--	--	Removed (NOA #018373)
	PC27-01	FU4-A	EP 22	Renamed (NOA #018373)
	PC27-03A	FU4-B	EP 23	Renamed (NOA #018373)
	PC27-03B	FU4-B	EP 24	Renamed (NOA #018373)
	PC28-01	--	--	Removed (NOA #018373)
	PC28-03A	--	--	Removed (NOA #018373)
	PC28-03B	FU4-B	EP 27	Renamed (NOA #018373)
	PC29-01	FU4-A	EP 56	Renamed (NOA #018373)
	PC30-01	FU4-A	EP 54	Renamed (NOA #018373)
	PC31-01	FU4-A	EP 12	Renamed (NOA #018373)
	PC31-02	--	--	Removed (NOA #018373)
	PC32-01	--	--	Removed (NOA #018373)
	PC33-01	FU4-A	EP 57	Renamed (NOA #018373)
	PC33-02	--	--	Removed (NOA #018373)
	PC33-03	FU-BIN	EPCR3	Renamed (NOA #018373)
		FU4-A	EPCR4	Renamed (NOA #018373)
	PC34-01	FU4-A	EP 28	Renamed (NOA #018373)
	PC34-03A	FU4-B	EP 29	Renamed (NOA #018373)
	PC34-03B	FU4-B	EP 30	Renamed (NOA #018373)
		FU4-B	EP 31	Renamed (NOA #018373)
	PC36-01	FU4-B	EP 55	Renamed (NOA #018373)
	PC36-02A	--	--	Removed (NOA #018373)
	PC36-02B	--	--	Removed (NOA #018373)
	PC36-03	FU4-B	EP 44	Renamed (NOA #018373)
	PC37-01	CRUSH	EP 45	New crusher (NOA #018373)
	PC38-01	FU4-A	EP 46	Renamed (NOA #018373)
		FU4-A	EP47	Renamed (NOA #018373)
	PC38-02A	FU4-B	EP 49	Renamed (NOA #018373)
	PC38-02B	FU4-B	EP 48	Renamed (NOA #018373)
	PC39-01	FU4-A	EP 50	Renamed (NOA #018373)
	PC39-02A	FU4-B	EP 51	Renamed (NOA #018373)
	PC39-02B	FU4-B	EP 52	Renamed (NOA #018373)
FU4	QA-3-03	--	--	Removed (NOA #018373)

Previous Permit		Proposed Permit		
EU	ID	EU	ID	Comment
FU4	QA1-01	FU4-B	EP 39	Renamed (NOA #018373)
(cont.)	QA2-01	FU4-A	EP 40	Renamed (NOA #018373)
	QA3-01	--	--	Removed (NOA #018373)
	QA3-02	--	--	Removed (NOA #018373)
	QA4-01	--	--	Removed (NOA #018373)
	QA5-01	FU4-A	EP 36	Renamed (NOA #018373)
	QA6-01	FU4-A	EP 35	Renamed (NOA #018373)
	QA8-01	FU4-A	EP 41	Renamed (NOA #018373)
	QA9-01	--	--	Removed (NOA #018373)
	KA3-01	FU4-A	EP 37	Renamed (NOA #018373)
		FU4-A	EP 42	Renamed (NOA #018373)

EMISSION LIMITS AND STANDARDS, TESTING, MONITORING, AND RECORDKEEPING

6. The cement plant is subject to the New Source Performance Standards (NSPS) for portland cement plants (40 CFR 60, Subpart F). The particulate and opacity standards contained in this Subpart include kiln limits of 0.30 lb/ton of kiln feed and 20% opacity, and clinker cooler limits of 0.10 lb/ton of kiln feed and 10% opacity. All other cement plant emissions, exclusive of the kiln and clinker cooler, have an opacity limit of 10%.

6.a. Testing Requirements: Initial testing under Subpart F has been completed and the facility was found in compliance with this standard.

6.b. Monitoring Requirements: The facility has installed continuous opacity monitors on the kiln and clinker cooler as required in this standard. The facility also maintains records of daily production rates and kiln feed rates.

7. The coal storage, handling and crushing system (emission unit CH and parts of KG) is subject to the New Source Performance Standards (NSPS, Subpart Y) for coal preparation plants. The coal storage, handling and crushing system was permitted in the previous permit but was not installed. The facility intends to install the coal system during this permit term. The standard includes a 20% opacity limit on any coal processing, storage, and conveying equipment.

7.a. Testing Requirements: EPA Method 9 is used to measure opacity.

7.b. Monitoring Requirements: An initial opacity test is required within 60 days of achieving the maximum production rate, but not later than 180 days after initial startup.

8. Portions of the quarry are subject to the New Source Performance Standards (NSPS, Subpart OOO) for non-metallic mineral processing plants. Those portions of the quarry subject to Subpart F are exempt from the provisions of Subpart OOO [40 CFR 60.670(b)]. All affected emission sources in the quarry are fugitive and subject to a 10% opacity [40 CFR 60.672(b)] except the crushers which are subject to a 15% opacity [40 CFR 60.672(c)]. Truck dumping into any screening operation, feed hopper or crusher is exempt from Subpart OOO [40 CFR 60.672(d)].

8.a. Testing Requirements: EPA Method 9 is used to measure opacity.

8.b. Monitoring Requirements: An initial opacity test is required within 60 days of achieving the maximum production rate, but not later than 180 days after initial startup.

9. The facility is exempt from the New Source Performance Standards for municipal waste combustors (40 CFR 60, Subpart Eb). Although the kiln is permitted to burn municipal waste, the quantity is limited to less than 30% of the total fuel weight. To qualify for this exemption, Ash Grove has notified the Administrator (EPA Region X) of an exemption claim, provided a copy of a federally enforceable permit, and will keep records on a calendar quarter basis of the weight of municipal waste and all other fuel combusted in the kiln [40 CFR 60.50b(j)]. EPA Region X acknowledged notification of this claim for exemption on 10/18/96.

10. The calciner in unit OA is exempt from the New Source Performance Standards for calciners and dryers (40 CFR 60, Subpart UUU) because it processes less than 50% of any mixture of the compounds listed in 40 CFR 60.731 [40 CFR 60.730(b)].

11. The facility is subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) from the portland cement manufacturing industry (40 CFR 63, Subpart LLL). The facility is potentially an area source of Hazardous Air Pollutants (HAP). An area source emits less than 10 tons/yr of any single HAP and less than 25 tons/yr of all HAP combined. Ash Grove performed a test on the kiln exhaust using EPA method 26 which indicated emissions of HCl would be 8.4 tons/yr, making it a potential area source. However, the NESHAP requires the use of EPA method 320 or 321 to establish area source status. [40 CFR 63.1352] This permit will require a test using EPA method 320 or 321 within 6 months of permit issuance in order to verify its area source status. If Ash Grove cannot prove it is an area source using method 320 or 321, the permit will be modified to include the major HAP source requirements.

Regardless of whether the facility is a major or area HAP source, the NESHAP standard of 40 CFR 63.1343(d) will apply and is included in this permit. This standard limits emissions of dioxins and furans based on the average gas temperature at the inlet to the baghouse (431.BF1) which is measured during a performance test. If the average temperature during the performance test is less than or equal to 204°C (400°F), then the dioxin/furan emission limit is 0.40 ng/dscm (TEQ) corrected to 7% O_2. If the average temperature during the performance test is greater than 204°C (400°F), then the dioxin/furan emission limit is 0.20 ng/dscm (TEQ) corrected to 7% O_2.

11.a. Testing Requirements: Compliance with the dioxin and furan standard must be demonstrated by December 7, 2002 (within 180 days of the compliance date, 6/10/02) by performing an EPA Method 23 test (40 CFR 60 App. A) [40 CFR 63.1349(b)(3)]. Separate tests must be performed while the raw mill is running under normal operating conditions, and while the raw mill is not operating. [40 CFR 63.1349(b)(b)(3)] This performance test must be repeated every 30 months (twice per permit term) [40 CFR 63.1349(e)].

11.b. Monitoring Requirements: The permittee is required to continuously monitor the temperature of the kiln exhaust gas at the inlet to the baghouse. A maximum gas temperature is established during the dioxin/furan stack test. This parameter is monitored to ensure the dioxin and furan standard is not exceeded. [40 CFR 63.1350(f)]

12. The facility is not subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) from hazardous waste combustors (40 CFR 63, Subpart EEE). This standard applies to cement kilns that burn hazardous waste. Ash Grove is not permitted to burn hazardous waste.

13. The facility underwent a Prevention of Significant Deterioration (PSD) review in 1977 and again in 1997. These reviews were contained in previous Air Contaminant Discharge Permits (ACDP). Initial testing for compliance with the PSD conditions has been completed. A continuous emission monitor (CEMS) for CO emissions from the kiln is required to monitor PSD compliance for that pollutant. Other testing and monitoring is in accordance with the Department's Title V monitoring and testing guidance document.

14. As identified earlier in this Review Report, this facility has insignificant emissions units (IEUs) that include categorically insignificant activities and aggregate insignificant emissions, as defined in OAR 340-200-

0020. For the most part, the standards that apply to IEUs are for opacity (20% limit) and particulate matter (0.1 gr/dscf limit). The Department does not consider it likely that IEUs could exceed an applicable emissions limit or standard because IEUs are generally equipment or activities that do not have any emission controls (e.g., small natural gas fired space heaters) and do not typically have visible emissions. Since there are no controls, no visible emissions, and the emissions are less than one ton per year, the Department does not believe that monitoring, recordkeeping, or reporting is necessary for assuring compliance with the standards.

PLANT SITE EMISSION LIMITS

15. A summary of the Plant Site Emission Limits follow:

Pollutant	Baseline Emission Rate	Netting Baseline		Plant Site Emission Limit (PSEL)		
		Previous	Proposed	Previous PSEL	Proposed PSEL	PSEL Increase
	(tons/year)					
PM	304	504	304	504	304	-200
PM_{10}	163	241	163	243	176	-67
CO	599	1257	1257	1257	1257	0
NO_x	1739	1739	1739	1743	1743	0
SO_2	27	27	27	42	42	0
VOC	15	15	15	19	24	5
Pb	0.014	0.014	0.014	0.021	0.024	0.003

15.a. The baseline emission rate is based on EPA's permit to construct No. PSD-X-77-03 issued on 7/27/77. The permit included emission limits for total suspended particulate matter (or PM) and SO_2 but did not include emissions of NO_x, CO, or VOC because the regulations in effect at the time did not require a PSD review for these regulated pollutants. The original PSEL also accounted only for emissions from the cement plant. Quarry emissions were included in a separate ACDP. An adjusted baseline emission rate was established in the initial Title V permit, issued on 7/3/95 which included NO_x, CO, VOC, and quarry emissions in the baseline calculations. Since the cement plant was permitted but did not operate during the baseline year, the cement plant baseline emission rate was based on the potential to emit rather than actual emissions. This permit corrects the emissions from unpaved roads using the latest EPA emission factor equations. This results in a decrease in the PM/PM_{10} baseline emission rate. This decrease is a correction due to the use of current emission factors rather than an actual decrease in emissions.

15.b. The netting baseline is the baseline for determining net increases as a result of a major modifications as defined in OAR 340-200-0020(62). The netting baseline equals the baseline emission rate or the emissions that were approved during the last PSD action in accordance with OAR 340-224-0070 through 340-224-0110 for only the pollutants subject to PSD. The facility underwent PSD action on 3/10/97 which re-established the CO netting baseline at 1257 tons/year. The proposed netting baseline is also corrected to account for current emission factors used in the estimate of unpaved road emissions.

15.c. The previous PSEL is the PSEL approved in the previous permit.

15.d. The proposed PSEL is the PSEL proposed for this permit. There is a 200 ton/year decrease in permitted PM emissions and a 67 ton/year decrease in permitted PM_{10} emissions due mainly to a correction of the unpaved road emission factors. This does not represent an actual decrease in emissions. Emissions of VOC from the kiln increased by 5 tons/yr and emissions of lead (Pb) increased 0.003 tons/yr due to an increase in kiln throughput.

15.e. PSEL increase means the difference between the proposed PSEL and the previous PSEL.

COMPONENTS of the PSEL

16. The PSEL consists of the following components:

Pollutant	Assigned PSEL (tons/yr)	Assigned PSEL (lb/hr)	Unassigned PSEL (tons/yr)
PM	237	138	67
PM_{10}	176	73	0
CO	1257	489	0
NO_x	1743	769	0
SO_2	42	12	0
VOC	24	9.4	0
Pb	0.024	0.0066	0

16.a. The assigned PSEL is the portion of the PSEL that is assigned to emission units and is available to the permittee to use.

16.b. The unassigned PSEL is the portion of the PSEL that is greater than the permittee's current demonstrated need to emit. The unassigned PSEL consists of emissions from the netting baseline which are not claimed by currently permitted emission activities.

SIGNIFICANT EMISSION RATE

17. The proposed PSEL is greater than the previous netting baseline as shown below.

Pollutant	SER	Requested increase over previous netting baseline	Increase due to utilizing capacity that existed in the baseline period	Increase due to physical changes or changes in the method of operation
PM	25	0	0	0
PM_{10}	15	13	13	0
CO	100	0	0	0
NO_x	40	4	4	0
SO_2	40	15	15	0
VOC	40	9	9	0
Pb	0.6	0.010	0.010	0

The Significant Emission Rates (SER) are defined in Oregon rules. [OAR 340-200-020(118)] Any emissions increase greater than the SER is defined as a major modification. [OAR 340-200-020(62)] The requested increase over netting baseline is less than the SER for all pollutants. Therefore, no further analysis is required.

HAZARDOUS AIR POLLUTANTS

18. Based on current information, this source is not a major source of Hazardous Air Pollutants (HAP) because the estimated HAP emissions are less than 10 tons/year of any individual HAP and less than 25 tons/year of combined HAP emissions. However, the portland cement NESHAP requires the use of EPA method 320 or 321 to establish area source status for HCl emissions and the current emission estimate is based on data from EPA method 26. [40 CFR 63.1352] This permit will require a test for HCl using EPA method 320 or 321 within 6 months of permit issuance in order to verify its non-major (area) source status. If Ash Grove cannot prove it is an area source using method 320 or 321, the permit will be modified to include the major HAP source requirements. Current estimated HAP emissions are listed below.

Pollutant	Proposed Emission (ton/yr)
Acetaldehyde	0.10
Benzene	7.52
Carbon Disulfide	0.05
Carbon Tetrachloride	0.29
Chlorobenzene	0.008
Chloroform	0.29
TEQ Dioxins/Furans	2.55E-05
Diethanolamine	1.01
Ethyl Benzene	0.009
Ethylene Glycol	1.01
Formaldehyde	0.22
Hydrogen Chloride	8.38
Hydrogen Fluoride	0.52
Methylene Chloride	0.24
Naphthalene	0.80
Phenol	0.05
Styrene	7.05E-04
Toluene	0.09
Xylene	0.06
Antimony	0.003
Arsenic	0.002
Beryllium	2.56E-04
Cadmium	0.003
Chromium	0.03
Cobalt	0.10
Manganese	0.02
Mercury	0.07
Nickel	0.03
Selenium	0.02
Combined HAP	**20.9**

GENERAL BACKGROUND INFORMATION

19. Other permits issued or required by the Department of Environmental Quality for this source include a storm water permit (1200-H).

20. The source is located in an area that is in attainment for all pollutants.

21. The source is located within 100 kilometers (62 miles) of the Strawberry Mountain, Eagle Cap, and Hell's Canyon wilderness areas. The nearest affected state, Idaho, is less than 50 miles away from the facility.

22. A Land Use Compatibility Statement signed by Baker County on 6/26/96 granted conditional approval. The approval requires compliance with the ACDP and Title V conditions.

COMPLIANCE HISTORY

23. The facility was inspected on 6/26/98, 8/19/98, 9/16/99, and 9/19/00 and found to be in compliance with permit conditions. There have been no complaints or enforcement actions taken against this source since the last permit renewal.

SOURCE TEST RESULTS

24. The most recent source test results are shown below.

Emission Unit	Pollutant	Date	Results	Limit
OA	Particulate	5/22/00	0.012 lb/ton feed	0.30 lb/ton feed
	CO	5/22/00	348.9 lb/hr	490 lb/hr
	NO_x	5/22/00	476 lb/hr	769 lb/hr
	SO_2	8/20/98	1.0 ppm 31.2 lb/day	10 ppm 150 lb/day
	HCl (method 26)	8/20/98	0.24 lb/hr 1.69E-03 kg/Mg clinker	-- 8.91E-03 kg/Mg clinker
CC	Particulate	5/25/00	0.007 lb/ton clinker	0.10 lb/ton kiln feed
421.BF3	Particulate	2/23/99	5.6 lb/day	45 lb/day
542.BF2	Particulate	2/23/99	12.4 lb/day	50.4 lb/day
542.BF3	Particulate	2/23/99	94.9 lb/day	315 lb/day

PUBLIC NOTICE

25. This permit was put out on public notice from January 9 to February 12, 2001. Comments were received from Ash Grove correcting some emission factors and baghouse nomenclature. These comments were not substantive. Comments were also received from the State of Idaho.

The first comment questioned how the area source determination for the NESHAP applicability was made, specifically the test methods used to determine HCl, organics, and metals emissions. The review report was modified to indicate that final determination has not been made as to whether Ash Grove is a major or area source of hazardous air pollutants. EPA method 26 was used to measure HCl emissions. This indicated that Ash Grove may potentially be an area source, however, the NESHAP requires EPA method 320 or 321 be used to determine area source status. The permit has been modified to require an EPA method 320 or 321 test within 6 months of permit issuance to verify that emissions of HCl are less and 10 tons/year. If emissions are greater than 10 tons/year, the permit will be modified to include the applicable NESHAP requirements. EPA method 25A was used to obtain a total hydrocarbon emissions measurement, but EPA emission factors (AP-42) were used for most of the organic HAP estimates. EPA method 0060 (SW-846) was used to measure metals emissions. This method is essentially equivalent to EPA method 29.

The second comment from Idaho noted that 40 CFR 60.63(a) requires recordkeeping of kiln feed rates and that recordkeeping for this parameter was not included in the permit. Ash Grove currently maintains records of kiln feed. This condition will be added to the permit.

This proposed permit was sent to EPA for an expedited review of 5 days. However, the public will have 105 days (45 day EPA review period plus 60 days) from the date the proposed permit is sent to EPA to appeal the permit with EPA. The permit will be issued following EPA's review.

EMISSIONS DETAIL SHEETS AND DOCUMENTATION OF EMISSION FACTORS

1977 Baseline Emission Factors

Emission Point Unit	ID	Pollutant	Emission Factor Hourly	Annual	Units	Reference
OA (was ESP now using baghouse)	OA-5	PM	0.145	0.145	kg/Mg clinker	1977 PSD permit: 198 kg/day; 1361 Mg clinker/day
		PM_{10}	0.122	0.122	kg/Mg clinker	AP-42: 84% of PM is PM_{10}
		SO_2	0.050	0.050	kg/Mg clinker	1977 PSD permit: 68 kg/day; 1361 Mg clinker/day
		NO_x	1.14	0.766	kg/GJ	Source Tests: hourly = avg + 3 σ; annual = avg + 1 σ
		CO	0.393	0.264	kg/GJ	Source Tests: hourly = avg + 3 σ; annual = avg + 1 σ
		VOC	9.38E-03	6.50E-03	kg/GJ	Source Tests: hourly = avg + 3 σ; annual = avg + 1 σ
		Pb	2.55E-05	2.55E-05	kg/Mg clinker	Source Test: maximum result
RM (541.BF2 moved to CM)	RM-19	PM	3.07E-03	3.38E-03	kg/Mg raw meal	1977 PSD permit: 15.41 lb/day; 19 hr/day; 132 ton raw meal/hr 15.41 lb/day; 365 day/yr; 833,000 ton raw meal/yr
		PM_{10}	2.58E-03	2.84E-03	kg/Mg raw meal	AP-42: 84% of PM is PM_{10}
HO'	HO-3 (421.BF3)	PM	7.09E-03	9.87E-03	kg/Mg raw meal	1977 PSD permit: 44.99 lb/day; 24 hr/day; 132 ton raw meal/hr 44.99 lb/day; 365 day/yr; 833,000 ton raw meal/yr
		PM_{10}	5.96E-03	8.29E-03	kg/Mg raw meal	AP-42: 84% of PM is PM_{10}
	HO-16 (removed)	PM	7.12E-03	9.91E-03	kg/Mg raw meal	1977 PSD permit: 45.21 lb/day; 24 hr/day; 132 ton raw meal/hr 45.21 lb/day; 365 day/yr; 833,000 ton raw meal/yr
		PM_{10}	5.98E-03	8.32E-03	kg/Mg raw meal	AP-42: 84% of PM is PM_{10}
CM'	CM-15 (542.BF2)	PM	0.0131	0.0104	kg/Mg cement	1977 PSD permit: 39.92 lb/day; 19 hr/day; 80 ton cement/hr 39.92 lb/day; 365 day/yr; 701,000 ton cement/yr
		PM_{10}	0.011	8.74E-03	kg/Mg cement	AP-42: 84% of PM is PM_{10}
	KL-7B (491.BF2)	PM	2.01E-03	1.01E-03	kg/Mg cement	1977 PSD permit: 3.87 lb/day; 12 hr/day; 80 ton cement/hr 3.87 lb/day; 365 day/yr; 701,000 ton cement/yr
		PM_{10}	1.69E-03	8.48E-04	kg/Mg cement	AP-42: 84% of PM is PM_{10}
	CM-18 (542.BF1)	PM	6.76E-03	5.35E-03	kg/Mg cement	1977 PSD permit: 20.55 lb/day; 19 hr/day; 80 ton cement/hr 20.55 lb/day; 365 day/yr; 701,000 ton cement/yr
		PM_{10}	5.68E-03	4.49E-03	kg/Mg cement	AP-42: 84% of PM is PM_{10}
	KG-12 (521.BF4)	PM	2.47E-03	2.06E-04	kg/Mg cement	1977 PSD permit: 0.79 lb/day; 2 hr/day; 80 ton cement/hr 0.79 lb/day; 365 day/yr; 701,000 ton cement/yr
		PM_{10}	2.07E-03	1.73E-04	kg/Mg cement	AP-42: 84% of PM is PM_{10}
	KL-7A (removed)	PM	2.01E-03	1.01E-03	kg/Mg cement	1977 PSD permit: 3.87 lb/day; 12 hr/day; 80 ton cement/hr 3.87 lb/day; 365 day/yr; 701,000 ton cement/yr
		PM_{10}	1.69E-03	8.48E-04	kg/Mg cement	AP-42: 84% of PM is PM_{10}

1977 Baseline Emission Factors

Emission Point Unit	ID	Pollutant	Emission Factor Hourly	Annual	Units	Reference
CP'	CP1A (611.BF1)	PM	3.33E-03	8.75E-04	kg/Mg cement	1977 PSD permit: 3.36 lb/day; 6.3 hr/day; 80 ton cement/hr 3.36 lb/day; 365 day/yr; 701,000 ton cement/yr
		PM_{10}	2.80E-03	7.35E-04	kg/Mg cement	AP-42: 84% of PM is PM_{10}
	CP1B (611.BF2)	PM	3.33E-03	8.75E-04	kg/Mg cement	1977 PSD permit: 3.36 lb/day; 6.3 hr/day; 80 ton cement/hr 3.36 lb/day; 365 day/yr; 701,000 ton cement/yr
		PM_{10}	2.80E-03	7.35E-04	kg/Mg cement	AP-42: 84% of PM is PM_{10}
	CP1C (611.BF3)	PM	3.33E-03	8.75E-04	kg/Mg cement	1977 PSD permit: 3.36 lb/day; 6.3 hr/day; 80 ton cement/hr 3.36 lb/day; 365 day/yr; 701,000 ton cement/yr
		PM_{10}	2.80E-03	7.35E-04	kg/Mg cement	AP-42: 84% of PM is PM_{10}
	CP9A (removed)	PM	2.09E-03	6.95E-04	kg/Mg cement	1977 PSD permit: 2.67 lb/day; 8 hr/day; 80 ton cement/hr 2.67 lb/day; 365 day/yr; 701,000 ton cement/yr
		PM_{10}	1.76E-03	5.84E-04	kg/Mg cement	AP-42: 84% of PM is PM_{10}
	CP9B (removed)	PM	2.09E-03	6.95E-04	kg/Mg cement	1977 PSD permit: 2.67 lb/day; 8 hr/day; 80 ton cement/hr 2.67 lb/day; 365 day/yr; 701,000 ton cement/yr
		PM_{10}	1.76E-03	5.84E-04	kg/Mg cement	AP-42: 84% of PM is PM_{10}
KG'	KG-8 (521.BF2)	PM	1.19E-03	1.16E-03	kg/Mg material	1977 PSD permit: 0.95 lb/day; 2 hr/day; 200 ton material/hr 0.95 lb/day; 365 day/yr; 150,000 ton material/yr
		PM_{10}	1.00E-03	9.74E-04	kg/Mg material	AP-42: 84% of PM is PM_{10}
	KG-10 (521.BF3)	PM	1.19E-03	1.16E-03	kg/Mg material	1977 PSD permit: 0.95 lb/day; 2 hr/day; 200 ton material/hr 0.95 lb/day; 365 day/yr; 150,000 ton material/yr
		PM_{10}	1.00E-03	9.74E-04	kg/Mg material	AP-42: 84% of PM is PM_{10}
	KA-5 (removed)	PM	2.46E-03	7.18E-04	kg/Mg cement	1977 PSD permit: 2.76 lb/day; 7 hr/day; 80 ton cement/hr 2.76 lb/day; 365 day/yr; 701,000 ton material/yr
		PM_{10}	2.07E-03	6.03E-04	kg/Mg cement	AP-42: 84% of PM is PM_{10}
FU1	All units	PM	1.51E-03	1.51E-03	kg/Mg raw meal	AP-42: 2.1 times PM_{10}
		PM_{10}	7.20E-04	7.20E-04	kg/Mg raw meal	AP-42 (1/95): Table 11.19.2-1
FU2	PT-FU-01	PM	0.779	0.779	kg/VKT	AP-42 (9/98) 13.2.2: s=8.3%, W=43.2, M=0.5, vel=10, 85% ctrl
		PM_{10}	0.159	0.159	kg/VKT	AP-42 (9/98) 13.2.2: s=8.3%, W=43.2, M=0.5, vel=10, 85% ctrl
	PT-FU-09	PM	0.308	0.308	kg/VKT	AP-42 (1/97): Sec. 13.2.1, sL=12 g/m^2, W=12, sweeping 50%
		PM_{10}	0.083	0.083	kg/VKT	AP-42 (1/97): Sec. 13.2.1, sL=12 g/m^2, W=12, sweeping 30%
FU3	PC-DLG	PM	1.39E-04	1.39E-04	kg/Mg limestone	AP-42: 2.1 times PM_{10}
	(EP 1)	PM_{10}	5.00E-05	5.00E-05	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1
	PC-BSG	PM/ PM_{10}			kg/Mg limestone	No factor available

1977 Baseline Emission Factor

Emission Point			Emission Factor			
Unit	ID	Pollutant	Hourly	Annual	Units	Reference
FU3	PC-DZG	PM	1.51E-03	1.51E-03	kg/Mg limestone	AP-42: 2.1 times PM_{10}
(cont)	(EP 3)	PM_{10}	7.20E-04	7.20E-04	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1
	PC-FEL	PM	1.51E-03	1.51E-03	kg/Mg limestone	AP-42: 2.1 times PM_{10}
	(EP 4)	PM_{10}	7.20E-04	7.20E-04	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1
	PC0-01	PM	1.775	1.775	kg/VKT	AP-42 (9/98): 13.2.2,s=8.3%, W=49.03, M=10
	(EP 5)	PM_{10}	0.516	0.516	kg/VKT	AP-42 (9/98): 13.2.2,s=8.3%, W=49.03, M=10
	PC1-01	PM	1.05E-04	1.05E-04	kg/Mg limestone	AP-42: 2.1 times PM_{10}
	(EP 6)	PM_{10}	5.00E-05	5.00E-05	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1
	PC2-01	PM	2.80E-04	2.80E-04	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1, 20% water spray control
		PM_{10}	1.34E-04	1.34E-04	kg/Mg limestone	AP-42: 48% of PM is PM_{10}
	PC3-01	PM	1.21E-03	1.21E-03	kg/Mg limestone	AP-42: 2.1 times PM_{10}
		PM_{10}	5.76E-04	5.76E-04	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1, 20% water spray control
	PC5-01	PM	1.21E-03	1.21E-03	kg/Mg limestone	AP-42: 2.1 times PM_{10}
		PM_{10}	5.76E-04	5.76E-04	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1, 20% water spray control
	PC6-01	PM	1.36E-03	1.36E-03	kg/Mg limestone	AP-42: 2.1 times PM_{10}
		PM_{10}	6.48E-03	6.48E-03	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1, 10% water spray control
	PC6-02	PM	1.44E-02	1.44E-02	kg/Mg limestone	AP-42: 2.1 times PM_{10}
		PM_{10}	6.84E-03	6.84E-03	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1, 10% water spray control
	PC8-01	PM	1.51E-03	1.51E-03	kg/Mg limestone	AP-42: 2.1 times PM_{10}
		PM_{10}	7.20E-04	7.20E-04	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1
	PC9-01	PM	1.51E-03	1.51E-03	kg/Mg limestone	AP-42: 2.1 times PM_{10}
		PM_{10}	7.20E-04	7.20E-04	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1
	PC9-03A	PM	3.02E-03	3.02E-03	kg/Mg limestone	AP-42: 2.1 times PM_{10}
		PM_{10}	1.44E-03	1.44E-03	kg/Mg limestone	AP-42 (1/95): Sec. 11.19.2
	PC9-03B	PM	3.90	3.90	kg/ha/day	AP-42 (1/95): Table 11.12-1
		PM_{10}	1.87	1.87	kg/ha/day	Eng. Judgement 48% of PM is PM_{10}
	PC0-11	PM	1.499	1.499	kg/VKT	AP-42 (9/98): Sec. 13.2.2, s=8.3%, W=35, M=10
		PM_{10}	0.451	0.451	kg/VKT	AP-42 (9/98): Sec. 13.2.2, s=8.3%, W=35, M=10
	PC9-04	PM	6.45E-02	6.45E-02	kg/Mg limestone	AP-42 (1/95): Sec. 11.19.2, 2 crushers, 4 screens
		PM_{10}	3.10E-02	3.10E-02	kg/Mg limestone	AP-42: 48% of PM is PM_{10}
	PC7-01	PM	1.51E-03	1.51E-03	kg/Mg limestone	AP-42: 2.1 times PM_{10}
		PM_{10}	7.20E-04	7.20E-04	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1
	PC7-03a	PM	1.51E-03	1.51E-03	kg/Mg limestone	AP-42: 2.1 times PM_{10}
		PM_{10}	7.20E-04	7.20E-04	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1

1977 Baseline Emission Factor

Emission Point Unit	ID	Pollutant	Emission Factor Hourly	Annual	Units	Reference
FU3 (cont)	PC7-03b	PM	3.90	3.90	kg/ha/day	AP-42 (1/95): Table 11.12-1
		PM_{10}	1.87	1.87	kg/ha/day	Eng. Judgement 48% of PM is PM_{10}
	PC10-01	PM	1.51E-03	1.51E-03	kg/Mg limestone	AP-42: 2.1 times PM_{10}
		PM_{10}	7.20E-04	7.20E-04	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1
	PC11-01	PM	1.21E-03	1.21E-03	kg/Mg limestone	AP-42: 2.1 times PM_{10}
		PM_{10}	5.76E-04	5.76E-04	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1, 20% water spray control
	PC12-01	PM	1.21E-03	1.21E-03	kg/Mg limestone	AP-42: 2.1 times PM_{10}
		PM_{10}	5.76E-04	5.76E-04	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1, 20% water spray control
	PC12-02	PM	1.44E-02	1.44E-02	kg/Mg limestone	AP-42: 2.1 times PM_{10}
		PM_{10}	6.84E-03	6.84E-03	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1, 10% water spray control
	PC13-01	PM	1.51E-03	1.51E-03	kg/Mg limestone	AP-42: 2.1 times PM_{10}
		PM_{10}	7.20E-04	7.20E-04	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1
	PC14-01	PM	1.51E-03	1.51E-03	kg/Mg limestone	AP-42: 2.1 times PM_{10}
		PM_{10}	7.20E-04	7.20E-04	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1
	PC14-02	PM	1.60E-02	1.60E-02	kg/Mg limestone	AP-42: 2.1 times PM_{10}
		PM_{10}	7.60E-03	7.60E-03	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1
	PC15-01	PM	1.51E-03	1.51E-03	kg/Mg limestone	AP-42: 2.1 times PM_{10}
		PM_{10}	7.20E-04	7.20E-04	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1
	PC24-03a	PM	3.02E-03	3.02E-03	kg/Mg limestone	AP-42: 2.1 times PM_{10}
		PM_{10}	1.44E-03	1.44E-03	kg/Mg limestone	AP-42 (1/95): Sec. 11.19.2
	PC24-03b	PM	3.90	3.90	kg/ha/day	AP-42 (1/95): Table 11.12-1
		PM_{10}	1.87	1.87	kg/ha/day	Eng. Judgement 48% of PM is PM_{10}
	PC22-01	PM	1.51E-03	1.51E-03	kg/Mg limestone	AP-42: 2.1 times PM_{10}
		PM_{10}	7.20E-04	7.20E-04	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1
	PC22-02	PM	1.51E-03	1.51E-03	kg/Mg limestone	AP-42: 2.1 times PM_{10}
		PM_{10}	7.20E-04	7.20E-04	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1
	PC22A-01	PM	1.51E-03	1.51E-03	kg/Mg limestone	AP-42: 2.1 times PM_{10}
		PM_{10}	7.20E-04	7.20E-04	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1
	PC27-01	PM	1.51E-03	1.51E-03	kg/Mg limestone	AP-42: 2.1 times PM_{10}
		PM_{10}	7.20E-04	7.20E-04	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1
	PC27-03a	PM	1.51E-03	1.51E-03	kg/Mg limestone	AP-42: 2.1 times PM_{10}
		PM_{10}	7.20E-04	7.20E-04	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1
	PC27-03b	PM	3.90	3.90	kg/ha/day	AP-42 (1/95): Table 11.12-1
		PM_{10}	1.87	1.87	kg/ha/day	Eng. Judgement 48% of PM is PM_{10}

1977 Baseline Emission Factors

Emission Point			Emission Factor			
Unit	ID	Pollutant	Hourly	Annual	Units	Reference
FU3 (cont)	PC30-01	PM	1.51E-03	1.51E-03	kg/Mg limestone	AP-42: 2.1 times PM_{10}
		PM_{10}	7.20E-04	7.20E-04	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1
	PC31-02	PM	1.51E-03	1.51E-03	kg/Mg limestone	AP-42: 2.1 times PM_{10}
		PM_{10}	7.20E-04	7.20E-04	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1
	PC33-01	PM	1.51E-03	1.51E-03	kg/Mg limestone	AP-42: 2.1 times PM_{10}
		PM_{10}	7.20E-04	7.20E-04	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1
	PC33-02	PM	1.60E-02	1.60E-02	kg/Mg limestone	AP-42: 2.1 times PM_{10}
		PM_{10}	7.60E-03	7.60E-03	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1
	PC34-01	PM	1.51E-03	1.51E-03	kg/Mg limestone	AP-42: 2.1 times PM_{10}
		PM_{10}	7.20E-04	7.20E-04	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1
	PC34-03A	PM	3.02E-03	3.02E-03	kg/Mg limestone	AP-42: 2.1 times PM_{10}
		PM_{10}	1.44E-03	1.44E-03	kg/Mg limestone	AP-42 (1/95): Sec. 11.19.1
	PC34-03B	PM	3.90	3.90	kg/ha/day	AP-42 (1/95): Table 11.12-1
		PM_{10}	1.87	1.87	kg/ha/day	Eng. Judgement 48% of PM is PM_{10}
	PC33-03	PM	1.51E-03	1.51E-03	kg/Mg limestone	AP-42: 2.1 times PM_{10}
		PM_{10}	7.20E-04	7.20E-04	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1
	PC0-13	PM	1.499	1.499	kg/VKT	AP-42 (9/98): Sec. 13.2.2, s=8.3%, W=35, M=10
		PM_{10}	0.451	0.451	kg/VKT	AP-42 (9/98): Sec. 13.2.2, s=8.3%, W=35, M=10
	PC16-03	PM	1.51E-03	1.51E-03	kg/Mg limestone	AP-42: 2.1 times PM_{10}
		PM_{10}	7.20E-04	7.20E-04	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1
	PC16-02	PM	3.50E-04	3.50E-04	kg/Mg limestone	AP-42: 2.1 times PM_{10}
	(removed)	PM_{10}	1.67E-04	1.67E-04	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1
	PC17-01	PM	1.51E-03	1.51E-03	kg/Mg limestone	AP-42: 2.1 times PM_{10}
		PM_{10}	7.20E-04	7.20E-04	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1
	PC20-01	PM	1.51E-03	1.51E-03	kg/Mg limestone	AP-42: 2.1 times PM_{10}
		PM_{10}	7.20E-04	7.20E-04	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1
	PC20-02	PM	1.60E-02	1.60E-02	kg/Mg limestone	AP-42: 2.1 times PM_{10}
		PM_{10}	7.60E-03	7.60E-03	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1
	PC26-03A	PM	3.02E-03	3.02E-03	kg/Mg limestone	AP-42: 2.1 times PM_{10}
		PM_{10}	1.44E-03	1.44E-03	kg/Mg limestone	AP-42 (1/95): Sec. 11.19.2
	PC26-03B	PM	3.90	3.90	kg/ha/day	AP-42 (1/95): Table 11.12-1
		PM_{10}	1.87	1.87	kg/ha/day	Eng. Judgement 48% of PM is PM_{10}
	PC0-12	PM	1.705	1.705	kg/VKT	AP-42 (9/98): 13.2.2, s=8.3, W=45.26, M=10
		PM_{10}	0.500	0.500	kg/VKT	AP-42 (9/98): 13.2.2, s=8.3, W=45.26, M=10

1977 Baseline Emission Factor

Emission Point			Emission Factor			
Unit	ID	Pollutant	Hourly	Annual	Units	Reference
FU3	PC21-02	PM	1.51E-03	1.51E-03	kg/Mg limestone	AP-42: 2.1 times PM_{10}
(cont)		PM_{10}	7.20E-04	7.20E-04	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1
	PC28-03A	PM	1.51E-03	1.51E-03	kg/Mg limestone	AP-42: 2.1 times PM_{10}
		PM_{10}	7.20E-04	7.20E-04	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1
	PC28-03B	PM	3.90	3.90	kg/ha/day	AP-42 (1/95): Table 11.12-1
		PM_{10}	1.87	1.87	kg/ha/day	Eng. Judgement 48% of PM is PM_{10}
	PC29-01	PM	1.51E-03	1.51E-03	kg/Mg limestone	AP-42: 2.1 times PM_{10}
		PM_{10}	7.20E-04	7.20E-04	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1
	PC32-01	PM	1.51E-03	1.51E-03	kg/Mg limestone	AP-42: 2.1 times PM_{10}
		PM_{10}	7.20E-04	7.20E-04	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1
	PC31-01	PM	1.51E-03	1.51E-03	kg/Mg limestone	AP-42: 2.1 times PM_{10}
		PM_{10}	7.20E-04	7.20E-04	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1
	PC18-01	PM	1.51E-03	1.51E-03	kg/Mg limestone	AP-42: 2.1 times PM_{10}
		PM_{10}	7.20E-04	7.20E-04	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1
	PC36-01	PM	2.49	0.642	kg/hour	AP-42 (1/95): Table 11.9-1, short/long:M=3/5,s=4/2
		PM_{10}	1.87	0.481	kg/hour	AP-42: 75% of PM is PM_{10}
	PC0-07	PM	1.705	1.705	kg/VKT	AP-42 (9/98): 13.2.2, s=8.3%, W=45.26, M=10
		PM_{10}	0.500	0.500	kg/VKT	AP-42 (9/98): 13.2.2, s=8.3%, W=45.26, M=10
	PC36-02A	PM	3.02E-03	3.02E-03	kg/Mg limestone	AP-42: 2.1 times PM_{10}
		PM_{10}	1.44E-03	1.44E-03	kg/Mg limestone	AP-42 (1/95): Sec. 11.19.2
	PC36-02B	PM	3.90	3.90	kg/ha/day	AP-42 (1/95): Table 11.12-1
		PM_{10}	1.87	1.87	kg/ha/day	Eng. Judgement 48% of PM is PM_{10}
	PC0-08	PM	1.775	1.775	kg/VKT	AP-42 (9/98): 13.2.2, s=8.3%, W=49.03, M=10
		PM_{10}	0.516	0.516	kg/VKT	AP-42 (9/98): 13.2.2, s=8.3%, W=49.03, M=10
	PC36-03	PM	1.51E-03	1.51E-03	kg/Mg limestone	AP-42: 2.1 times PM_{10}
		PM_{10}	7.20E-04	7.20E-04	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1
	PC37-01	PM	1.60E-02	1.60E-02	kg/Mg limestone	AP-42: 2.1 times PM_{10}
		PM_{10}	7.60E-03	7.60E-03	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1
	PC38-01	PM	1.51E-03	1.51E-03	kg/Mg limestone	AP-42: 2.1 times PM_{10}
		PM_{10}	7.20E-04	7.20E-04	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1
	PC38-02a	PM	3.02E-03	3.02E-03	kg/Mg limestone	AP-42: 2.1 times PM_{10}
		PM_{10}	1.44E-03	1.44E-03	kg/Mg limestone	AP-42 (1/95): Sec. 11.19.2
	PC38-02b	PM	3.90	3.90	kg/ha/day	AP-42 (1/95): Table 11.12-1
		PM_{10}	1.87	1.87	kg/ha/day	Eng. Judgement 48% of PM is PM_{10}

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Emission Point Unit	ID	Pollutant	Emission Factor Hourly	Annual	Units	Reference
FU3	PC0-09	PM	1.775	1.775	kg/VKT	AP-42 (9/98): 13.2.2, s=8.3%, W=49.03, M=10
(cont)		PM_{10}	0.516	0.516	kg/VKT	AP-42 (9/98): 13.2.2, s=8.3%, W=49.03, M=10
	PC39-01	PM	1.51E-03	1.51E-03	kg/Mg limestone	AP-42: 2.1 times PM_{10}
		PM_{10}	7.20E-04	7.20E-04	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1
	PC39-02A	PM	3.02E-03	3.02E-03	kg/Mg limestone	AP-42: 2.1 times PM_{10}
		PM_{10}	1.44E-03	1.44E-03	kg/Mg limestone	AP-42 (1/95): Sec. 11.19.2
	PC39-02B	PM	3.90	3.90	kg/ha/day	AP-42 (1/95): Table 11.12-1
		PM_{10}	1.87	1.87	kg/ha/day	Eng. Judgement 48% of PM is PM_{10}

1977 Baseline Emissions

Emission Point			Operating Parameter			Emission Factor			Emissions			
Unit	ID	Pollutant	per hour	per year	Unit	Hourly	Annual	Units	kg/hr	Mg/yr	lb/hr	ton/yr
OA	OA-5	PM	56.7	497,000	Mg clinker	0.145	0.145	kg/Mg clinker	8.22	72.07	18.13	79.44
		PM_{10}	56.7	497,000	Mg clinker	0.122	0.122	kg/Mg clinker	6.92	60.63	15.25	66.84
		SO_2	56.7	497,000	Mg clinker	0.050	0.050	kg/Mg clinker	2.84	24.85	6.25	27.39
		NO_x	235	2,060,000	GJ	1.14	0.766	kg/GJ	267.90	1,577.96	590.72	1,739.39
		CO	235	2,060,000	GJ	0.393	0.264	kg/GJ	92.36	543.84	203.64	599.47
		VOC	235	2,060,000	GJ	9.38E-03	6.50E-03	kg/GJ	2.20	13.39	4.86	14.76
		Pb	56.7	497,000	Mg clinker	2.55E-05	2.55E-05	kg/Mg clinker	1.45E-03	1.27E-02	3.19E-03	1.40E-02
RM	RM-19	PM	120	755,000	Mg raw meal	3.07E-03	3.38E-03	kg/Mg raw meal	0.37	2.55	0.81	2.81
		PM_{10}	120	755,000	Mg raw meal	2.58E-03	2.84E-03	kg/Mg raw meal	0.31	2.14	0.68	2.36
HO'	HO-3	PM	120	755,000	Mg raw meal	7.09E-03	9.87E-03	kg/Mg raw meal	0.85	7.45	1.88	8.21
		PM_{10}	120	755,000	Mg raw meal	5.96E-03	8.29E-03	kg/Mg raw meal	0.72	6.26	1.58	6.90
	HO-16	PM	120	755,000	Mg raw meal	7.12E-03	9.91E-03	kg/Mg raw meal	0.85	7.48	1.88	8.25
		PM_{10}	120	755,000	Mg raw meal	5.98E-03	8.32E-03	kg/Mg raw meal	0.72	6.28	1.58	6.92
	Total	**PM**							**1.71**	**14.93**	**3.76**	**16.46**
		PM_{10}							**1.43**	**12.54**	**3.16**	**13.82**
CM'	CM-15	PM	72.6	636,000	Mg cement	0.0131	0.0104	kg/Mg cement	0.95	6.61	2.10	7.29
		PM_{10}	72.6	636,000	Mg cement	0.011	8.74E-03	kg/Mg cement	0.80	5.56	1.76	6.13
	KL-7B	PM	72.6	636,000	Mg cement	2.01E-03	1.01E-03	kg/Mg cement	0.15	0.64	0.32	0.71
		PM_{10}	72.6	636,000	Mg cement	1.69E-03	8.48E-04	kg/Mg cement	0.12	0.54	0.27	0.59
	CM-18	PM	72.6	636,000	Mg cement	6.76E-03	5.35E-03	kg/Mg cement	0.49	3.40	1.08	3.75
		PM_{10}	72.6	636,000	Mg cement	5.68E-03	4.49E-03	kg/Mg cement	0.41	2.86	0.91	3.15
	KG-12	PM	72.6	636,000	Mg cement	2.47E-03	2.06E-04	kg/Mg cement	0.18	0.13	0.40	0.14
		PM_{10}	72.6	636,000	Mg cement	2.07E-03	1.73E-04	kg/Mg cement	0.15	0.11	0.33	0.12
	KL-7A	PM	72.6	636,000	Mg cement	2.01E-03	1.01E-03	kg/Mg cement	0.15	0.64	0.32	0.71
		PM_{10}	72.6	636,000	Mg cement	1.69E-03	8.48E-04	kg/Mg cement	0.12	0.54	0.27	0.59
	Total	**PM**							**1.91**	**11.43**	**4.22**	**12.60**
		PM_{10}							**1.61**	**9.60**	**3.54**	**10.59**

1977 Baseline Emissions

Emission Point			Operating Parameter			Emission Factor			Emissions			
Unit	ID	Pollutant	per hour	per year	Unit	Hourly	Annual	Units	kg/hr	Mg/yr	lb/hr	ton/yr
CP'	CP1A	PM	72.6	636,000	Mg cement	3.33E-03	8.75E-04	kg/Mg cement	0.24	0.56	0.53	0.61
		PM_{10}	72.6	636,000	Mg cement	2.80E-03	7.35E-04	kg/Mg cement	0.20	0.47	0.45	0.52
	CP1B	PM	72.6	636,000	Mg cement	3.33E-03	8.75E-04	kg/Mg cement	0.24	0.56	0.53	0.61
		PM_{10}	72.6	636,000	Mg cement	2.80E-03	7.35E-04	kg/Mg cement	0.20	0.47	0.45	0.52
	CP1C	PM	72.6	636,000	Mg cement	3.33E-03	8.75E-04	kg/Mg cement	0.24	0.56	0.53	0.61
		PM_{10}	72.6	636,000	Mg cement	2.80E-03	7.35E-04	kg/Mg cement	0.20	0.47	0.45	0.52
	CP9A	PM	72.6	636,000	Mg cement	2.09E-03	6.95E-04	kg/Mg cement	0.15	0.44	0.33	0.49
		PM_{10}	72.6	636,000	Mg cement	1.76E-03	5.84E-04	kg/Mg cement	0.13	0.37	0.28	0.41
	CP9B	PM	72.6	636,000	Mg cement	2.09E-03	6.95E-04	kg/Mg cement	0.15	0.44	0.33	0.49
		PM_{10}	72.6	636,000	Mg cement	1.76E-03	5.84E-04	kg/Mg cement	0.13	0.37	0.28	0.41
	Total	**PM**							**1.03**	**2.55**	**2.27**	**2.81**
		PM_{10}							**0.87**	**2.15**	**1.91**	**2.36**
KG	KG-8	PM	181	136,000	Mg material	1.19E-03	1.16E-03	kg/Mg material	0.22	0.16	0.47	0.17
		PM_{10}	181	136,000	Mg material	1.00E-03	9.74E-04	kg/Mg material	0.18	0.13	0.40	0.15
	KG-10	PM	181	136,000	Mg material	1.19E-03	1.16E-03	kg/Mg material	0.22	0.16	0.47	0.17
		PM_{10}	181	136,000	Mg material	1.00E-03	9.74E-04	kg/Mg material	0.18	0.13	0.40	0.15
	KA-5	PM	72.6	636,000	Mg cement	2.46E-03	7.18E-04	kg/Mg cement	0.18	0.46	0.39	0.50
		PM_{10}	72.6	636,000	Mg cement	2.07E-03	6.03E-04	kg/Mg cement	0.15	0.38	0.33	0.42
	Total	**PM**							**0.61**	**0.77**	**1.34**	**0.85**
		PM_{10}							**0.51**	**0.65**	**1.13**	**0.71**
FU1	KA-10-SC	PM	500	755,000	Mg raw meal	1.51E-03	1.51E-03	kg/Mg raw meal	0.76	1.14	1.66	1.26
		PM_{10}	500	755,000	Mg raw meal	7.20E-04	7.20E-04	kg/Mg raw meal	0.36	0.54	0.79	0.60
	RM-21-SC	PM	500	755,000	Mg raw meal	1.51E-03	1.51E-03	kg/Mg raw meal	0.76	1.14	1.66	1.26
		PM_{10}	500	755,000	Mg raw meal	7.20E-04	7.20E-04	kg/Mg raw meal	0.36	0.54	0.79	0.60
	RM-22-SC	PM	500	755,000	Mg raw meal	1.51E-03	1.51E-03	kg/Mg raw meal	0.76	1.14	1.66	1.26
		PM_{10}	500	755,000	Mg raw meal	7.20E-04	7.20E-04	kg/Mg raw meal	0.36	0.54	0.79	0.60
	HO-02-SC	PM	120	755,000	Mg raw meal	1.51E-03	1.51E-03	kg/Mg raw meal	0.18	1.14	0.40	1.26
		PM_{10}	120	755,000	Mg raw meal	7.20E-04	7.20E-04	kg/Mg raw meal	0.09	0.54	0.19	0.60
	CM-28-SC	PM	72.6	636,000	Mg cement	1.51E-03	1.51E-03	kg/Mg cement	0.11	0.96	0.24	1.06
		PM_{10}	72.6	636,000	Mg cement	7.20E-04	7.20E-04	kg/Mg cement	0.05	0.46	0.12	0.50
	CM-29-SC	PM	72.6	636,000	Mg cement	1.51E-03	1.51E-03	kg/Mg cement	0.11	0.96	0.24	1.06
		PM_{10}	72.6	636,000	Mg cement	7.20E-04	7.20E-04	kg/Mg cement	0.05	0.46	0.12	0.50

1977 Baseline Emissions

Emission Point			Operating Parameter			Emission Factor			Emissions			
Unit	ID	Pollutant	per hour	per year	Unit	Hourly	Annual	Units	kg/hr	Mg/yr	lb/hr	ton/yr
FU1 (cont)	CM-31-SC	PM	72.6	636,000	Mg cement	1.51E-03	1.51E-03	kg/Mg cement	0.11	0.96	0.24	1.06
		PM_{10}	72.6	636,000	Mg cement	7.20E-04	7.20E-04	kg/Mg cement	0.05	0.46	0.12	0.50
	CM-30-SC	PM	72.6	636,000	Mg cement	1.51E-03	1.51E-03	kg/Mg cement	0.11	0.96	0.24	1.06
		PM_{10}	72.6	636,000	Mg cement	7.20E-04	7.20E-04	kg/Mg cement	0.05	0.46	0.12	0.50
	CM-5B-SC	PM	72.6	636,000	Mg cement	1.51E-03	1.51E-03	kg/Mg cement	0.11	0.96	0.24	1.06
		PM_{10}	72.6	636,000	Mg cement	7.20E-04	7.20E-04	kg/Mg cement	0.05	0.46	0.12	0.50
	CP-08-SC	PM	72.6	636,000	Mg cement	1.51E-03	1.51E-03	kg/Mg cement	0.11	0.96	0.24	1.06
		PM_{10}	72.6	636,000	Mg cement	7.20E-04	7.20E-04	kg/Mg cement	0.05	0.46	0.12	0.50
	KG-6A-CD	PM	181	175,000	Mg material	1.51E-03	1.51E-03	kg/Mg material	0.27	0.26	0.60	0.29
		PM_{10}	181	175,000	Mg material	7.20E-04	7.20E-04	kg/Mg material	0.13	0.13	0.29	0.14
	Total	**PM**							**3.38**	**10.59**	**7.45**	**11.67**
		PM_{10}							**1.61**	**5.05**	**3.55**	**5.56**
FU2	PT-FU-01	PM	0.54	2,355	VKT	0.779	0.779	kg/VKT	0.42	1.84	0.93	2.02
		PM_{10}	0.54	2,355	VKT	0.159	0.159	kg/VKT	0.09	0.37	0.19	0.41
	PT-FU-09	PM	2.1	15,000	VKT	0.308	0.308	kg/VKT	0.65	4.61	1.42	5.09
		PM_{10}	2.1	15,000	VKT	8.26E-02	8.26E-02	kg/VKT	0.17	1.24	0.38	1.37
	Total	**PM**							**1.07**	**6.45**	**2.35**	**7.11**
		PM_{10}							**0.26**	**1.61**	**0.57**	**1.78**
FU3	PC-DLG	PM	400	461,684	Mg limestone	1.39E-04	1.39E-04	kg/Mg limestone	0.06	0.06	0.12	0.07
		PM_{10}	400	461,684	Mg limestone	5.00E-05	5.00E-05	kg/Mg limestone	0.02	0.02	0.04	0.03
	PC-BSG	PM	400	461,684	Mg limestone			kg/Mg limestone				
		PM_{10}	400	461,684	Mg limestone			kg/Mg limestone				
	PC-DZG	PM	400	461,684	Mg limestone	1.51E-03	1.51E-03	kg/Mg limestone	0.60	0.70	1.33	0.77
		PM_{10}	400	461,684	Mg limestone	7.20E-04	7.20E-04	kg/Mg limestone	0.29	0.33	0.64	0.37
	PC-FEL	PM	400	461,684	Mg limestone	1.51E-03	1.51E-03	kg/Mg limestone	0.60	0.70	1.33	0.77
		PM_{10}	400	461,684	Mg limestone	7.20E-04	7.20E-04	kg/Mg limestone	0.29	0.33	0.64	0.37
	PC0-01	PM	6.4	12,543	VKT	1.77	1.77	kg/VKT	11.36	22.26	25.04	24.54
		PM_{10}	6.4	12,543	VKT	0.516	0.516	kg/VKT	3.30	6.47	7.28	7.13
	PC1-01	PM	400	461,684	Mg limestone	1.05E-04	1.05E-04	kg/Mg limestone	0.04	0.05	0.09	0.05
		PM_{10}	400	461,684	Mg limestone	5.00E-05	5.00E-05	kg/Mg limestone	0.02	0.02	0.04	0.03
	PC2-01	PM	400	461,684	Mg limestone	2.80E-04	2.80E-04	kg/Mg limestone	0.11	0.13	0.25	0.14
		PM_{10}	400	461,684	Mg limestone	1.33E-04	1.33E-04	kg/Mg limestone	0.05	0.06	0.12	0.07
	PC3-01	PM	400	461,684	Mg limestone	1.21E-03	1.21E-03	kg/Mg limestone	0.48	0.56	1.07	0.62
		PM_{10}	400	461,684	Mg limestone	5.76E-04	5.76E-04	kg/Mg limestone	0.23	0.27	0.51	0.29

1977 Baseline Emissions

Emission Point			Operating Parameter			Emission Factor			Emissions			
Unit	ID	Pollutant	per hour	per year	Unit	Hourly	Annual	Units	kg/hr	Mg/yr	lb/hr	ton/yr
FU3 (cont)	PC5-01	PM	400	461,684	Mg limestone	1.21E-03	1.21E-03	kg/Mg limestone	0.48	0.56	1.07	0.62
		PM_{10}	400	461,684	Mg limestone	5.76E-04	5.76E-04	kg/Mg limestone	0.23	0.27	0.51	0.29
	PC6-01	PM	400	461,684	Mg limestone	1.36E-03	1.36E-03	kg/Mg limestone	0.54	0.63	1.20	0.69
		PM_{10}	400	461,684	Mg limestone	6.48E-03	6.48E-03	kg/Mg limestone	2.59	2.99	5.72	3.30
	PC6-02	PM	400	461,684	Mg limestone	1.44E-02	1.44E-02	kg/Mg limestone	5.76	6.65	12.70	7.33
		PM_{10}	400	461,684	Mg limestone	6.84E-03	6.84E-03	kg/Mg limestone	2.74	3.16	6.03	3.48
	PC8-01	PM	145	299,888	Mg limestone	1.51E-03	1.51E-03	kg/Mg limestone	0.22	0.45	0.48	0.50
		PM_{10}	145	299,888	Mg limestone	7.20E-04	7.20E-04	kg/Mg limestone	0.10	0.22	0.23	0.24
	PC9-01	PM	145	299,888	Mg limestone	1.51E-03	1.51E-03	kg/Mg limestone	0.22	0.45	0.48	0.50
		PM_{10}	145	299,888	Mg limestone	7.20E-04	7.20E-04	kg/Mg limestone	0.10	0.22	0.23	0.24
	PC9-03a	PM	145	299,888	Mg limestone	3.02E-03	3.02E-03	kg/Mg limestone	0.44	0.91	0.97	1.00
		PM_{10}	145	299,888	Mg limestone	1.44E-03	1.44E-03	kg/Mg limestone	0.21	0.43	0.46	0.48
	PC9-03b	PM	0.0542	0.0327	ha	3.90	3.90	kg/ha/day	8.81E-03	4.65E-02	0.02	0.05
		PM_{10}	0.0542	0.0327	ha	1.87	1.87	kg/ha/day	4.22E-03	2.23E-02	0.01	0.02
	PC0-11	PM	8.4	19,200	VKT	1.50	1.50	kg/VKT	12.59	28.79	27.77	31.73
		PM_{10}	8.4	19,200	VKT	0.451	0.451	kg/VKT	3.79	8.66	8.35	9.54
	PC9-04	PM	68	68,000	Mg limestone	6.45E-02	6.45E-02	kg/Mg limestone	4.39	4.39	9.67	4.83
		PM_{10}	68	68,000	Mg limestone	3.10E-02	3.10E-02	kg/Mg limestone	2.11	2.11	4.65	2.32
	PC7-01	PM	92	149,854	Mg limestone	1.51E-03	1.51E-03	kg/Mg limestone	0.14	0.23	0.31	0.25
		PM_{10}	92	149,854	Mg limestone	7.20E-04	7.20E-04	kg/Mg limestone	0.07	0.11	0.15	0.12
	PC7-03a	PM	92	149,854	Mg limestone	1.51E-03	1.51E-03	kg/Mg limestone	0.14	0.23	0.31	0.25
		PM_{10}	92	149,854	Mg limestone	7.20E-04	7.20E-04	kg/Mg limestone	0.07	0.11	0.15	0.12
	PC7-03b	PM	0.156	0.0934	ha	3.90	3.90	kg/ha/day	0.03	0.13	0.06	0.15
		PM_{10}	0.156	0.0934	ha	1.87	1.87	kg/ha/day	0.01	0.06	0.03	0.07
	PC10-01	PM	92	149,854	Mg limestone	1.51E-03	1.51E-03	kg/Mg limestone	0.14	0.23	0.31	0.25
		PM_{10}	92	149,854	Mg limestone	7.20E-04	7.20E-04	kg/Mg limestone	0.07	0.11	0.15	0.12
	PC11-01	PM	92	149,854	Mg limestone	1.21E-03	1.21E-03	kg/Mg limestone	0.11	0.18	0.25	0.20
		PM_{10}	92	149,854	Mg limestone	5.76E-04	5.76E-04	kg/Mg limestone	0.05	0.09	0.12	0.10
	PC12-01	PM	92	149,854	Mg limestone	1.21E-03	1.21E-03	kg/Mg limestone	0.11	0.18	0.25	0.20
		PM_{10}	92	149,854	Mg limestone	5.76E-04	5.76E-04	kg/Mg limestone	0.05	0.09	0.12	0.10
	PC12-02	PM	92	149,854	Mg limestone	1.44E-02	1.44E-02	kg/Mg limestone	1.32	2.16	2.92	2.38
		PM_{10}	92	149,854	Mg limestone	6.84E-03	6.84E-03	kg/Mg limestone	0.63	1.03	1.39	1.13
	PC13-01	PM	55	89,912	Mg limestone	1.51E-03	1.51E-03	kg/Mg limestone	0.08	0.14	0.18	0.15
		PM_{10}	55	89,912	Mg limestone	7.20E-04	7.20E-04	kg/Mg limestone	0.04	0.06	0.09	0.07

1977 Baseline Emissions

Emission Point Unit	ID	Pollutant	Operating Parameter per hour	per year	Unit	Emission Factor Hourly	Annual	Units	Emissions kg/hr	Mg/yr	lb/hr	ton/yr
FU3 (cont)	PC14-01	PM	55	89,912	Mg limestone	1.51E-03	1.51E-03	kg/Mg limestone	0.08	0.14	0.18	0.15
		PM_{10}	55	89,912	Mg limestone	7.20E-04	7.20E-04	kg/Mg limestone	0.04	0.06	0.09	0.07
	PC14-02	PM	55	89,912	Mg limestone	1.60E-02	1.60E-02	kg/Mg limestone	0.88	1.44	1.94	1.59
		PM_{10}	55	89,912	Mg limestone	7.60E-03	7.60E-03	kg/Mg limestone	0.42	0.68	0.92	0.75
	PC15-01	PM	17	27,873	Mg limestone	1.51E-03	1.51E-03	kg/Mg limestone	0.03	0.04	0.06	0.05
		PM_{10}	17	27,873	Mg limestone	7.20E-04	7.20E-04	kg/Mg limestone	0.01	0.02	0.03	0.02
	PC24-03a	PM	17	27,873	Mg limestone	3.02E-03	3.02E-03	kg/Mg limestone	0.05	0.08	0.11	0.09
		PM_{10}	17	27,873	Mg limestone	1.44E-03	1.44E-03	kg/Mg limestone	0.02	0.04	0.05	0.04
	PC24-03b	PM	0.00752	0.00591	ha	3.90	3.90	kg/ha/day	1.22E-03	8.41E-03	2.69E-03	9.27E-03
		PM_{10}	0.00752	0.00591	ha	1.87	1.87	kg/ha/day	5.86E-04	4.03E-03	1.29E-03	4.45E-03
	PC22-01	PM	19	31,469	Mg limestone	1.51E-03	1.51E-03	kg/Mg limestone	0.03	0.05	0.06	0.05
		PM_{10}	19	31,469	Mg limestone	7.20E-04	7.20E-04	kg/Mg limestone	0.01	0.02	0.03	0.02
	PC22-02	PM	29	47,953	Mg limestone	1.51E-03	1.51E-03	kg/Mg limestone	0.04	0.07	0.10	0.08
		PM_{10}	29	47,953	Mg limestone	7.20E-04	7.20E-04	kg/Mg limestone	0.02	0.03	0.05	0.04
	PC22A-01	PM	48	79,422	Mg limestone	1.51E-03	1.51E-03	kg/Mg limestone	0.07	0.12	0.16	0.13
		PM_{10}	48	79,422	Mg limestone	7.20E-04	7.20E-04	kg/Mg limestone	0.03	0.06	0.08	0.06
	PC27-01	PM	48	79,422	Mg limestone	1.51E-03	1.51E-03	kg/Mg limestone	0.07	0.12	0.16	0.13
		PM_{10}	48	79,422	Mg limestone	7.20E-04	7.20E-04	kg/Mg limestone	0.03	0.06	0.08	0.06
	PC27-03a	PM	48	79,422	Mg limestone	1.51E-03	1.51E-03	kg/Mg limestone	0.07	0.12	0.16	0.13
		PM_{10}	48	79,422	Mg limestone	7.20E-04	7.20E-04	kg/Mg limestone	0.03	0.06	0.08	0.06
	PC27-03b	PM	0.159	0.0956	ha	3.90	3.90	kg/ha/day	0.03	0.14	0.06	0.15
		PM_{10}	0.159	0.0956	ha	1.87	1.87	kg/ha/day	0.01	0.07	0.03	0.07
	PC30-01	PM	99	79,423	Mg limestone	1.51E-03	1.51E-03	kg/Mg limestone	0.15	0.12	0.33	0.13
		PM_{10}	99	79,423	Mg limestone	7.20E-04	7.20E-04	kg/Mg limestone	0.07	0.06	0.16	0.06
	PC31-02	PM	99	79,423	Mg limestone	1.51E-03	1.51E-03	kg/Mg limestone	0.15	0.12	0.33	0.13
		PM_{10}	99	79,423	Mg limestone	7.20E-04	7.20E-04	kg/Mg limestone	0.07	0.06	0.16	0.06
	PC33-01	PM	99	79,423	Mg limestone	1.51E-03	1.51E-03	kg/Mg limestone	0.15	0.12	0.33	0.13
		PM_{10}	99	79,423	Mg limestone	7.20E-04	7.20E-04	kg/Mg limestone	0.07	0.06	0.16	0.06
	PC33-02	PM	99	79,423	Mg limestone	1.60E-02	1.60E-02	kg/Mg limestone	1.58	1.27	3.49	1.40
		PM_{10}	99	79,423	Mg limestone	7.60E-03	7.60E-03	kg/Mg limestone	0.75	0.60	1.66	0.67
	PC34-01	PM	10	7,942	Mg limestone	1.51E-03	1.51E-03	kg/Mg limestone	0.02	0.01	0.03	0.01
		PM_{10}	10	7,942	Mg limestone	7.20E-04	7.20E-04	kg/Mg limestone	0.01	0.01	0.02	0.01
	PC34-03a	PM	10	7,942	Mg limestone	3.02E-03	3.02E-03	kg/Mg limestone	0.03	0.02	0.07	0.03
		PM_{10}	10	7,942	Mg limestone	1.44E-03	1.44E-03	kg/Mg limestone	0.01	0.01	0.03	0.01

1977 Baseline Emissions

Emission Point Unit	ID	Pollutant	Operating Parameter per hour	per year	Unit	Emission Factor Hourly	Annual	Units	Emissions kg/hr	Mg/yr	lb/hr	ton/yr

FU3 (cont)	PC34-03b	PM	0.0015	0.0008	ha	3.90	3.90	kg/ha/day	2.44E-04	1.14E-03	5.37E-04	1.26E-03
		PM_{10}	0.0015	0.0008	ha	1.87	1.87	kg/ha/day	1.17E-04	5.46E-04	2.58E-04	6.02E-04
	PC33-03	PM	89	71,480	Mg limestone	1.51E-03	1.51E-03	kg/Mg limestone	0.13	0.11	0.30	0.12
		PM_{10}	89	71,480	Mg limestone	7.20E-04	7.20E-04	kg/Mg limestone	0.06	0.05	0.14	0.06
	PC0-13	PM	0.88	1,331	VKT	1.50	1.50	kg/VKT	1.32	2.00	2.91	2.20
		PM_{10}	0.88	1,331	VKT	0.451	0.451	kg/VKT	0.40	0.60	0.87	0.66
	PC16-03	PM	0.37	599	Mg limestone	1.51E-03	1.51E-03	kg/Mg limestone	5.59E-04	9.04E-04	1.23E-03	9.97E-04
		PM_{10}	0.37	599	Mg limestone	7.20E-04	7.20E-04	kg/Mg limestone	2.66E-04	4.31E-04	5.87E-04	4.75E-04
	PC16-02	PM	37	59,942	Mg limestone	3.50E-04	3.50E-04	kg/Mg limestone	0.01	0.02	0.03	0.02
		PM_{10}	37	59,942	Mg limestone	1.67E-04	1.67E-04	kg/Mg limestone	0.01	0.01	0.01	0.01
	PC17-01	PM	37	59,942	Mg limestone	1.51E-03	1.51E-03	kg/Mg limestone	0.06	0.09	0.12	0.10
		PM_{10}	37	59,942	Mg limestone	7.20E-04	7.20E-04	kg/Mg limestone	0.03	0.04	0.06	0.05
	PC20-01	PM	37	59,942	Mg limestone	1.51E-03	1.51E-03	kg/Mg limestone	0.06	0.09	0.12	0.10
		PM_{10}	37	59,942	Mg limestone	7.20E-04	7.20E-04	kg/Mg limestone	0.03	0.04	0.06	0.05
	PC20-02	PM	37	59,942	Mg limestone	1.60E-02	1.60E-02	kg/Mg limestone	0.59	0.96	1.31	1.06
		PM_{10}	37	59,942	Mg limestone	7.60E-03	7.60E-03	kg/Mg limestone	0.28	0.46	0.62	0.50
	PC26-03a	PM	2	2,997	Mg limestone	3.02E-03	3.02E-03	kg/Mg limestone	6.04E-03	9.05E-03	1.33E-02	9.98E-03
		PM_{10}	2	2,997	Mg limestone	1.44E-03	1.44E-03	kg/Mg limestone	2.88E-03	4.32E-03	6.35E-03	4.76E-03
	PC26-03b	PM	0.0816	0.0408	ha	3.90	3.90	kg/ha/day	0.01	0.06	0.03	0.06
		PM_{10}	0.0816	0.0408	ha	1.87	1.87	kg/ha/day	0.01	0.03	0.01	0.03
	PC0-12	PM	9.27	27,246	VKT	1.70	1.70	kg/VKT	15.81	46.45	34.85	51.21
		PM_{10}	9.27	27,246	VKT	0.500	0.500	kg/VKT	4.63	13.62	10.21	15.01
	PC21-02	PM	5	8,392	Mg limestone	1.51E-03	1.51E-03	kg/Mg limestone	7.55E-03	1.27E-02	0.02	0.01
		PM_{10}	5	8,392	Mg limestone	7.20E-04	7.20E-04	kg/Mg limestone	3.60E-03	6.04E-03	0.01	0.01
	PC28-03a	PM	2	2,997	Mg limestone	1.51E-03	1.51E-03	kg/Mg limestone	3.02E-03	4.53E-03	6.66E-03	4.99E-03
		PM_{10}	2	2,997	Mg limestone	7.20E-04	7.20E-04	kg/Mg limestone	1.44E-03	2.16E-03	3.18E-03	2.38E-03
	PC28-03b	PM	0.159	0.106	ha	3.90	3.90	kg/ha/day	0.03	0.15	0.06	0.17
		PM_{10}	0.159	0.106	ha	1.87	1.87	kg/ha/day	0.01	0.07	0.03	0.08
	PC29-01	PM	49	38,962	Mg limestone	1.51E-03	1.51E-03	kg/Mg limestone	0.07	0.06	0.16	0.06
		PM_{10}	49	38,962	Mg limestone	7.20E-04	7.20E-04	kg/Mg limestone	0.04	0.03	0.08	0.03
	PC32-01	PM	49	38,962	Mg limestone	1.51E-03	1.51E-03	kg/Mg limestone	0.07	0.06	0.16	0.06
		PM_{10}	49	38,962	Mg limestone	7.20E-04	7.20E-04	kg/Mg limestone	0.04	0.03	0.08	0.03
	PC31-01	PM	49	38,962	Mg limestone	1.51E-03	1.51E-03	kg/Mg limestone	0.07	0.06	0.16	0.06
		PM_{10}	49	38,962	Mg limestone	7.20E-04	7.20E-04	kg/Mg limestone	0.04	0.03	0.08	0.03

1977 Baseline Emissions

Emission Point			Operating Parameter			Emission Factor			Emissions			
Unit	ID	Pollutant	per hour	per year	Unit	Hourly	Annual	Units	kg/hr	Mg/yr	lb/hr	ton/yr
FU3 (cont)	PC18-01	PM	0.37	599	Mg limestone	1.51E-03	1.51E-03	kg/Mg limestone	5.59E-04	9.04E-04	1.23E-03	9.97E-04
		PM_{10}	0.37	599	Mg limestone	7.20E-04	7.20E-04	kg/Mg limestone	2.66E-04	4.31E-04	5.87E-04	4.75E-04

PC36-01	PM	1	24	hours	2.49	0.642	kg/hour	2.49	0.02	5.49	0.02
	PM_{10}	1	24	hours	1.87	0.481	kg/hour	1.87	0.01	4.12	0.01
PC0-07	PM	1.4	1,690	VKT	1.70	1.70	kg/VKT	2.39	2.88	5.26	3.18
	PM_{10}	1.4	1,690	VKT	0.50	0.50	kg/VKT	0.70	0.84	1.54	0.93
PC36-02a	PM	138	45,164	Mg limestone	3.02E-03	3.02E-03	kg/Mg limestone	0.42	0.14	0.92	0.15
	PM_{10}	138	45,164	Mg limestone	1.44E-03	1.44E-03	kg/Mg limestone	0.20	0.07	0.44	0.07
PC36-02b	PM	0.143	0.107	ha	3.90	3.90	kg/ha/day	0.02	0.15	0.05	0.17
	PM_{10}	0.143	0.107	ha	1.87	1.87	kg/ha/day	0.01	0.07	0.02	0.08
PC0-08	PM	0.43	780	VKT	1.77	1.77	kg/VKT	0.76	1.38	1.68	1.53
	PM_{10}	0.43	780	VKT	0.516	0.516	kg/VKT	0.22	0.40	0.49	0.44
PC36-03	PM	138	45,164	Mg limestone	1.51E-03	1.51E-03	kg/Mg limestone	0.21	0.07	0.46	0.08
	PM_{10}	138	45,164	Mg limestone	7.20E-04	7.20E-04	kg/Mg limestone	0.10	0.03	0.22	0.04
PC37-01	PM	138	45,164	Mg limestone	1.60E-02	1.60E-02	kg/Mg limestone	2.21	0.72	4.87	0.80
	PM_{10}	138	45,164	Mg limestone	7.60E-03	7.60E-03	kg/Mg limestone	1.05	0.34	2.31	0.38
PC38-01	PM	138	45,164	Mg limestone	1.51E-03	1.51E-03	kg/Mg limestone	0.21	0.07	0.46	0.08
	PM_{10}	138	45,164	Mg limestone	7.20E-04	7.20E-04	kg/Mg limestone	0.10	0.03	0.22	0.04
PC38-02a	PM	138	45,164	Mg limestone	3.02E-03	3.02E-03	kg/Mg limestone	0.42	0.14	0.92	0.15
	PM_{10}	138	45,164	Mg limestone	1.44E-03	1.44E-03	kg/Mg limestone	0.20	0.07	0.44	0.07
PC38-02b	PM	0.0325	0.0269	ha	3.90	3.90	kg/ha/day	5.28E-03	3.83E-02	0.01	0.04
	PM_{10}	0.0325	0.0269	ha	1.87	1.87	kg/ha/day	2.53E-03	1.84E-02	0.01	0.02
PC0-09	PM	8	12,857	VKT	1.77	1.77	kg/VKT	14.20	22.82	31.30	25.15
	PM_{10}	8	12,857	VKT	0.516	0.516	kg/VKT	4.13	6.63	9.10	7.31
PC39-01	PM	138	22,582	Mg limestone	1.51E-03	1.51E-03	kg/Mg limestone	0.21	0.03	0.46	0.04
	PM_{10}	138	22,582	Mg limestone	7.20E-04	7.20E-04	kg/Mg limestone	0.10	0.02	0.22	0.02
PC39-02a	PM	138	22,582	Mg limestone	3.02E-03	3.02E-03	kg/Mg limestone	0.42	0.07	0.92	0.08
	PM_{10}	138	22,582	Mg limestone	1.44E-03	1.44E-03	kg/Mg limestone	0.20	0.03	0.44	0.04
PC39-02b	PM	0.0395	0.0325	ha	3.90	3.90	kg/ha/day	6.42E-03	4.63E-02	0.01	0.05
	PM_{10}	0.0395	0.0325	ha	1.87	1.87	kg/ha/day	3.08E-03	2.22E-02	0.01	0.02
Total	**PM**							**85.63**	**153.48**	**188.81**	**169.18**
	PM_{10}							**33.14**	**52.74**	**73.08**	**58.13**

Summary of Current Emission Factors

Emission Point Unit	ID	Pollutant	Emission Factor Hourly	Annual	Units	Reference
OA	431.BF1	PM	4.70	4.70	kg/hr	Vendor estimate: 0.008 gr/dscf, 127,000 + 24,203 dscfm
	&	PM_{10}	3.95	3.95	kg/hr	AP-42: 84% of PM is PM_{10}
	476.BF3	SO_2	0.045	0.045	kg/Mg clinker	Source Test (1989)
		NO_x	2.956	1.854	kg/Mg clinker	Source estimate based on CEMS and production averages

		CO	1.88	1.34	kg/Mg clinker	Source estimate based on CEMS and production averages
		VOC	9.38E-03	6.50E-03	kg/GJ	Source Tests: Hourly = avg + 3 σ; Annual = avg + 1 σ
		Pb	2.55E-05	2.55E-05	kg/Mg clinker	Source Test: maximum result
RM	341.BF1	PM	0.272	0.272	kg/hr	Vendor: 0.0185 gr/scf; 3,778 scfm
		PM_{10}	0.228	0.228	kg/hr	AP-42: 84% of PM is PM_{10}
	351.BF1	PM	0.086	0.086	kg/hr	Vendor: 0.0185 gr/scf; 1,200 scfm
		PM_{10}	0.073	0.073	kg/hr	AP-42: 84% of PM is PM_{10}
	351.BF2	PM	0.108	0.108	kg/hr	Vendor: 0.0185 gr/scf; 1,500 scfm
		PM_{10}	0.091	0.091	kg/hr	AP-42: 84% of PM is PM_{10}
	371.BF1	PM	0.167	0.167	kg/hr	Vendor: 0.01 gr/dscf; 4,300 dcsfm
		PM_{10}	0.140	0.140	kg/hr	AP-42: 84% of PM is PM_{10}
	EU TOTAL	**PM**	**0.633**	**0.633**	**kg/hr**	
		PM_{10}	**0.532**	**0.532**	**kg/hr**	
HO	411.BF1	PM	0.204	0.204	kg/hr	Vendor: 0.0185 gr/scf; 2,832 scfm
		PM_{10}	0.171	0.171	kg/hr	AP-42: 84% of PM is PM_{10}
	421.BF3	PM	0.850	0.850	kg/hr	PSD permit: 44.99 lb/day; 24 hr/day; 132 ton raw meal/hr 44.99 lb/day; 365 day/yr; 833,000 ton raw meal/yr
		PM_{10}	0.714	0.714	kg/hr	AP-42: 84% of PM is PM_{10}
	421.BF2	PM	0.218	0.218	kg/hr	Vendor: 0.01 gr/dscf; 5,600 dscfm
		PM_{10}	0.183	0.183	kg/hr	AP-42: 84% of PM is PM_{10}
	421.BF1	PM	0.175	0.175	kg/hr	Vendor: 0.01 gr/dscf; 4,500 dscfm
		PM_{10}	0.147	0.147	kg/hr	AP-42: 84% of PM is PM_{10}
	EU TOTAL	**PM**	**1.447**	**1.447**	**kg/hr**	
		PM_{10}	**1.215**	**1.215**	**kg/hr**	

Summary of Current Emission Factors

Emission Point Unit	ID	Pollutant	Emission Factor Hourly	Annual	Units	Reference
CM	491.BF1	PM	0.816	0.816	kg/hr	Vendor: 0.01 gr/dscf; 21,000 dscfm
		PM_{10}	0.686	0.686	kg/hr	AP-42: 84% of PM is PM_{10}
	491.BF2	PM	0.146	0.146	kg/hr	1977 PSD permit: 3.87 lb/day; 12 hr/day; 80 ton cement/hr, 701,000 ton/yr
		PM_{10}	0.123	0.123	kg/hr	AP-42: 84% of PM is PM_{10}
	521.BF4	PM	0.179	0.179	kg/hr	1977 PSD permit: 0.79 lb/day; 2 hr/day; 365 day/yr, 80 ton cement/hr
		PM_{10}	0.151	0.151	kg/hr	AP-42: 84% of PM is PM_{10}
	532.BF2	PM	4.08E-02	4.08E-02	kg/hr	Vendor: 0.0185 gr/dscf; 1,135 dscfm; vented inside bldg (50% ctrl)
		PM_{10}	3.43E-02	3.43E-02	kg/hr	AP-42: 84% of PM is PM_{10}
	532.BF1	PM	4.08E-02	4.08E-02	kg/hr	Vendor: 0.0185 gr/dscf; 1,135 dscfm; vented inside bldg (50% ctrl)
		PM_{10}	3.43E-02	3.43E-02	kg/hr	AP-42: 84% of PM is PM_{10}
	532.BF3	PM	4.08E-02	4.08E-02	kg/hr	Vendor: 0.0185 gr/dscf; 1,135 dscfm; vented inside bldg (50% ctrl)
		PM_{10}	3.43E-02	3.43E-02	kg/hr	AP-42: 84% of PM is PM_{10}
	532.BF4	PM	5.09E-02	5.09E-02	kg/hr	Vendor: 0.0185 gr/dscf; 1,416 dscfm; vented inside bldg (50% ctrl)
		PM_{10}	4.28E-02	4.28E-02	kg/hr	AP-42: 84% of PM is PM_{10}
	532.BF6	PM	0.272	0.272	kg/hr	Vendor: 0.0185 gr/dscf; 3,778 dscfm
		PM_{10}	0.228	0.228	kg/hr	AP-42: 84% of PM is PM_{10}
	542.BF2	PM	0.953	0.953	kg/hr	1977 PSD permit: 39.92 lb/day; 19 hr/day; 365 day/yr; 80 ton cement/hr
		PM_{10}	0.801	0.801	kg/hr	AP-42: 84% of PM is PM_{10}
	542.BF3	PM	1.361	1.361	kg/hr	Vendor: 0.01 gr/acf; 35,000 acfm
		PM_{10}	1.143	1.143	kg/hr	AP-42: 84% of PM is PM_{10}
	542.BF1	PM	0.491	0.491	kg/hr	1977 PSD permit: 20.55 lb/day; 19 hr/day; 80 ton cement/hr 20.55 lb/day; 365 day/yr; 701,000 ton cement/yr
		PM_{10}	0.412	0.412	kg/hr	AP-42: 84% of PM is PM_{10}
	531.BF1	PM	0.132	0.132	kg/hr	Vendor: 0.01 gr/dscf; 3,400 dscfm
		PM_{10}	0.111	0.111	kg/hr	AP-42: 84% of PM is PM_{10}
	541.BF2	PM	0.368	0.368	kg/hr	1977 PSD permit: 15.41 lb/day; 19 hr/day; 132 ton raw meal/hr 15.41 lb/day; 365 day/yr; 833,000 ton raw meal/yr
		PM_{10}	0.309	0.309	kg/hr	AP-42: 84% of PM is PM_{10}
	541.BF1	PM	2.625	2.625	kg/hr	Vendor: 0.016 gr/dscf; 42,200 dscfm
		PM_{10}	2.205	2.205	kg/hr	AP-42: 84% of PM is PM_{10}
	271.BF1	PM	0.146	0.146	kg/hr	1977 PSD permit: 3.87 lb/day; 12 hr/day; 80 ton cement/hr 3.87 lb/day; 365 day/yr; 701,000 ton cement/yr
		PM_{10}	0.123	0.123	kg/hr	AP-42: 84% of PM is PM_{10}
	EU TOTAL	**PM**	**7.663**	**7.663**	**kg/hr**	
		PM_{10}	**6.437**	**6.437**	**kg/hr**	

Summary of Current Emission Factors

Emission Point Unit	ID	Pollutant	Emission Factor Hourly	Annual	Units	Reference
CP	611.BF8	PM	0.174	0.174	kg/hr	Vendor: 0.01 gr/scf; 4,477 scfm
		PM_{10}	0.146	0.146	kg/hr	AP-42: 84% of PM is PM_{10}
	611.BF1	PM	0.242	0.242	kg/hr	1977 PSD permit: 3.36 lb/day; 6.3 hr/day; 80 ton cement/hr 3.36 lb/day; 365 day/yr; 701,000 ton cement/yr
		PM_{10}	0.203	0.203	kg/hr	AP-42: 84% of PM is PM_{10}
	611.BF2	PM	0.242	0.242	kg/hr	1977 PSD permit: 3.36 lb/day; 6.3 hr/day; 80 ton cement/hr 3.36 lb/day; 365 day/yr; 701,000 ton cement/yr
		PM_{10}	0.203	0.203	kg/hr	AP-42: 84% of PM is PM_{10}
	611.BF3	PM	0.242	0.242	kg/hr	1977 PSD permit: 3.36 lb/day; 6.3 hr/day; 80 ton cement/hr 3.36 lb/day; 365 day/yr; 701,000 ton cement/yr
		PM_{10}	0.203	0.203	kg/hr	AP-42: 84% of PM is PM_{10}
	611.BF4	PM	3.89E-02	3.89E-02	kg/hr	Vendor: 0.01 gr/scf; 1,000 scfm
		PM_{10}	3.27E-02	3.27E-02	kg/hr	AP-42: 84% of PM is PM_{10}
	611.BF5	PM	0.253	0.253	kg/hr	Vendor: 0.01 gr/scf; 6,500 scfm
		PM_{10}	0.212	0.212	kg/hr	AP-42: 84% of PM is PM_{10}
	622.BF1	PM	0.151	0.151	kg/hr	1977 PSD permit: 2.67 lb/day; 8 hr/day; 80 ton cement/hr 2.67 lb/day; 365 day/yr; 701,000 ton cement/yr
		PM_{10}	0.127	0.127	kg/hr	AP-42: 84% of PM is PM_{10}
	621.BF1	PM	0.151	0.151	kg/hr	1977 PSD permit: 2.67 lb/day; 8 hr/day; 80 ton cement/hr 2.67 lb/day; 365 day/yr; 701,000 ton cement/yr
		PM_{10}	0.127	0.127	kg/hr	AP-42: 84% of PM is PM_{10}
	EU TOTAL	**PM**	**1.494**	**1.494**	**kg/hr**	
		PM_{10}	**1.255**	**1.255**	**kg/hr**	

KG	521.BF1	PM	3.89E-02	3.89E-02	kg/hr	Vendor: 0.01 gr/scf; 1,000 scfm
		PM_{10}	3.27E-02	3.27E-02	kg/hr	AP-42: 84% of PM is PM_{10}
	521.BF2	PM	0.389	0.389	kg/hr	Vendor: 0.01 gr/dscf, 10,000 dscfm
		PM_{10}	0.327	0.327	kg/hr	AP-42: 84% of PM is PM_{10}
	521.BF3	PM	0.215	0.215	kg/hr	1977 PSD permit: 0.95 lb/day; 2 hr/day; 200 ton material/hr 0.95 lb/day; 365 day/yr; 150,000 ton material/yr
		PM_{10}	0.181	0.181	kg/hr	AP-42: 84% of PM is PM_{10}
	532.BF5	PM	0.179	0.179	kg/hr	1977 PSD permit: 2.76 lb/day; 7 hr/day; 80 ton cement/hr 2.76 lb/day; 365 day/yr; 701,000 ton material/yr
		PM_{10}	0.150	0.150	kg/hr	AP-42: 84% of PM is PM_{10}
	521.BF5	PM	3.89E-02	3.89E-02	kg/hr	Vendor: 0.01 gr/dscf, 1,000 dscfm
		PM_{10}	3.27E-02	3.27E-02	kg/hr	AP-42: 84% of PM is PM_{10}
	EU TOTAL	**PM**	**0.861**	**0.861**	**kg/hr**	
		PM_{10}	**0.723**	**0.723**	**kg/hr**	

Summary of Current Emission Factors

Emission Point			Emission Factor			
Unit	ID	Pollutant	Hourly	Annual	Units	Reference
CH	476.BF1	PM	3.89E-02	3.89E-02	kg/hr	Vendor: 0.01 gr/dscf, 1,000 dscfm
		PM_{10}	3.27E-02	3.27E-02	kg/hr	AP-42: 84% of PM is PM_{10}
	476.BF2	PM	0.233	0.233	kg/hr	Vendor: 0.01 gr/dscf, 6,000 dscfm
		PM_{10}	0.196	0.196	kg/hr	AP-42: 84% of PM is PM_{10}
	476.BF4	PM	5.05E-02	5.05E-02	kg/hr	Vendor: 0.01 gr/dscf, 1,300 dscfm
		PM_{10}	4.24E-02	4.24E-02	kg/hr	AP-42: 84% of PM is PM_{10}
	EU TOTAL	**PM**	**0.323**	**0.323**	**kg/hr**	
		PM_{10}	**0.271**	**0.271**	**kg/hr**	
CC	471.BF1	PM	2.022	2.022	kg/hr	Vendor: 0.016 gr/dscf; 32,500 dscfm
		PM_{10}	1.698	1.698	kg/hr	AP-42: 84% of PM is PM_{10}
FU2	PT-FU-01	PM	0.779	0.779	kg/VKT	AP-42 (9/98) 13.2.2: s=8.3%, W=86.11 ton, M=0.5,vel<15mph, 85% ctrl
		PM_{10}	0.159	0.159	kg/VKT	AP-42 (9/98) 13.2.2: s=8.3%, W=86.11 ton, M=0.5,vel<15mph, 85% ctrl
	PT-FU-09	PM	0.355	0.355	kg/VKT	AP-42 (10/97): Sec. 13.2.1, sL 12 g/m2, W=13.2, sweeping (50% ctrl)
		PM_{10}	0.095	0.095	kg/VKT	AP-42 (10/97): Sec. 13.2.1, sL 12 g/m2, W=13.2, sweeping (30% ctrl)
FU3	EP 1	PM	8.40E-05	8.40E-05	kg/Mg limestone	AP-42: 2.1 times PM_{10}
	(PC-DLG)	PM_{10}	4.00E-05	4.00E-05	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1
	EP 2	PM			kg/Mg limestone	No factor available
	(PC-BSG)	PM_{10}			kg/Mg limestone	No factor available
	EP 3	PM	1.51E-03	1.51E-03	kg/Mg limestone	AP-42: 2.1 times PM_{10}
	(PC-DZG)	PM_{10}	7.20E-04	7.20E-04	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1
	EP 4	PM	1.51E-03	1.51E-03	kg/Mg limestone	AP-42: 2.1 times PM_{10}
	(PC-FEL)	PM_{10}	7.20E-04	7.20E-04	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1
	EP 5	PM	0.305	0.305	kg/VKT	AP-42 (9/98): 13.2.2,s=8.3,W=120,M=10, treated (85% ctrl)
	(PC0-01)	PM_{10}	0.081	0.081	kg/VKT	AP-42 (9/98): 13.2.2,s=8.3,W=120,M=10, treated (85% ctrl)
	EP 6	PM	4.20E-06	4.20E-06	kg/Mg limestone	AP-42: 2.1 times PM_{10}
	(PC1-01)	PM_{10}	2.00E-06	2.00E-06	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1, 75% ctrl

Summary of Current Emission Factors

Emission Point			Emission Factor			
Unit	ID	Pollutant	Hourly	Annual	Units	Reference
FU-CRU	EP 7	PM	3.50E-05	3.50E-05	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1, 90% ctrl
	(PC2-01)	PM_{10}	1.68E-05	1.68E-05	kg/Mg limestone	48% of PM is PM_{10}
	EP 17	PM	6.30E-04	6.30E-04	kg/Mg limestone	AP-42: 2.1 times PM_{10}
	(PC16-02)	PM_{10}	3.00E-04	3.00E-04	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1, 75% ctrl
	EP 45	PM	2.52E-04	2.52E-04	kg/Mg limestone	AP-42: 2.1 times PM_{10}
	(PC37-01)	PM_{10}	1.20E-04	1.20E-04	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1, 90% ctrl
FU-BIN	EPCR3	PM	1.51E-04	1.51E-04	kg/Mg limestone	AP-42: 2.1 times PM_{10}
	(PC33-03)	PM_{10}	7.20E-05	7.20E-05	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1, 90% ctrl
FU4-A	EP 8	PM	7.56E-05	7.56E-05	kg/Mg limestone	AP-42: 2.1 times PM_{10}
	(PC3-01)	PM_{10}	3.60E-05	3.60E-05	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1, 90% moisture, 50% bldg ctrl
	EP 9	PM	1.51E-04	1.51E-04	kg/Mg limestone	AP-42: 2.1 times PM_{10}
	(PC9-01)	PM_{10}	7.20E-05	7.20E-05	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1, 90% ctrl
	EP 12	PM	7.56E-04	7.56E-04	kg/Mg limestone	AP-42: 2.1 times PM_{10}
	(PC31-01)	PM_{10}	3.60E-04	3.60E-04	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1, 50% control
	EP 13	PM	7.56E-04	7.56E-04	kg/Mg limestone	AP-42: 2.1 times PM_{10}
	(PC16-01)	PM_{10}	3.60E-04	3.60E-04	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1, 50% control
	EP 14	PM	1.51E-04	1.51E-04	kg/Mg limestone	AP-42: 2.1 times PM_{10}
	(PC16-01)	PM_{10}	7.20E-05	7.20E-05	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1, 90% control
	EP 15	PM	7.98E-04	7.98E-04	kg/Mg limestone	AP-42: 2.1 times PM_{10}
	(PC6-02)	PM_{10}	3.80E-04	3.80E-04	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1, 90% moisture, 50% bldg ctrl
	EP 16	PM	7.56E-04	7.56E-04	kg/Mg limestone	AP-42: 2.1 times PM_{10}
	(PC18-01)	PM_{10}	3.60E-04	3.60E-04	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1, 50% control
	EP 18	PM	1.51E-03	1.51E-03	kg/Mg limestone	AP-42: 2.1 times PM_{10}
	(PC16-03)	PM_{10}	7.20E-04	7.20E-04	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1
	EP 19	PM	1.51E-04	1.51E-04	kg/Mg limestone	AP-42: 2.1 times PM_{10}
	(PC22-01)	PM_{10}	7.20E-05	7.20E-05	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1, 90% ctrl
	EP 20	PM	1.51E-04	1.51E-04	kg/Mg limestone	AP-42: 2.1 times PM_{10}
	(PC7-01)	PM_{10}	7.20E-05	7.20E-05	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1, 90% ctrl
	EP 21	PM	1.51E-04	1.51E-04	kg/Mg limestone	AP-42: 2.1 times PM_{10}
	(PC13-01)	PM_{10}	7.20E-05	7.20E-05	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1, 90% ctrl
	EP 22	PM	1.51E-04	1.51E-04	kg/Mg limestone	AP-42: 2.1 times PM_{10}
	(PC27-01)	PM_{10}	7.20E-05	7.20E-05	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1, 90% ctrl
	EP 25	PM	1.51E-04	1.51E-04	kg/Mg limestone	AP-42: 2.1 times PM_{10}
	(PC7-03a)	PM_{10}	7.20E-05	7.20E-05	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1, 90% ctrl

Summary of Current Emission Factors

Emission Point			Emission Factor			
Unit	ID	Pollutant	Hourly	Annual	Units	Reference
FU4-A	EP 28	PM	1.51E-04	1.51E-04	kg/Mg limestone	AP-42: 2.1 times PM_{10}
(cont.)	(PC34-01)	PM_{10}	7.20E-05	7.20E-05	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1, 90% ctrl
	EP 34	PM	7.56E-04	7.56E-04	kg/Mg limestone	AP-42: 2.1 times PM_{10}
	(PC24-03a)	PM_{10}	3.60E-04	3.60E-04	kg/Mg limestone	AP-42 (1/95): Sec. 11.19.1, 50% ctrl
	EP 35	PM	7.56E-04	7.56E-04	kg/Mg limestone	AP-42: 2.1 times PM_{10}
	(QA6-01)	PM_{10}	3.60E-04	3.60E-04	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1, 50% control
	EP 36	PM	7.56E-04	7.56E-04	kg/Mg limestone	AP-42: 2.1 times PM_{10}
	(QA5-01)	PM_{10}	3.60E-04	3.60E-04	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1, 50% control
	EP 37	PM	7.56E-04	7.56E-04	kg/Mg limestone	AP-42: 2.1 times PM_{10}
	(KA3-01)	PM_{10}	3.60E-04	3.60E-04	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1, 50% control
	EP 40	PM	1.51E-03	1.51E-03	kg/Mg limestone	AP-42: 2.1 times PM_{10}
	(QA2-01)	PM_{10}	7.20E-04	7.20E-04	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1
	EP 41	PM	1.51E-03	1.51E-03	kg/Mg limestone	AP-42: 2.1 times PM_{10}
	(QA8-01)	PM_{10}	7.20E-04	7.20E-04	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1
	EP 42	PM	1.51E-03	1.51E-03	kg/Mg limestone	AP-42: 2.1 times PM_{10}
	(KA3-01)	PM_{10}	7.20E-04	7.20E-04	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1
	EP 46	PM	1.51E-04	1.51E-04	kg/Mg limestone	AP-42: 2.1 times PM_{10}
	(PC38-01)	PM_{10}	7.20E-05	7.20E-05	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1, 90% ctrl
	EP 47	PM	1.51E-04	1.51E-04	kg/Mg limestone	AP-42: 2.1 times PM_{10}
	(PC38-01)	PM_{10}	7.20E-05	7.20E-05	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1, 90% ctrl
	EP 50	PM	1.51E-04	1.51E-04	kg/Mg limestone	AP-42: 2.1 times PM_{10}
	(PC39-01)	PM_{10}	7.20E-05	7.20E-05	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1, 90% ctrl
	EP 53	PM	7.56E-04	7.56E-04	kg/Mg limestone	AP-42: 2.1 times PM_{10}
	(PC11-01)	PM_{10}	3.60E-04	3.60E-04	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1, 50% ctrl
	EP 54	PM	7.56E-04	7.56E-04	kg/Mg limestone	AP-42: 2.1 times PM_{10}
	(PC30-01)	PM_{10}	3.60E-04	3.60E-04	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1, 50% ctrl
	EP 56	PM	7.56E-04	7.56E-04	kg/Mg limestone	AP-42: 2.1 times PM_{10}
	(PC29-01)	PM_{10}	3.60E-04	3.60E-04	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1, 50% ctrl
	EP 57	PM	7.56E-04	7.56E-04	kg/Mg limestone	AP-42: 2.1 times PM_{10}
	(PC33-01)	PM_{10}	3.60E-04	3.60E-04	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1, 50% ctrl
	EPCR1	PM	7.56E-04	7.56E-04	kg/Mg	AP42: Table 11.19.2-1, 50% ctrl, 2.1xPM_{10}
		PM_{10}	3.60E-04	3.60E-04	kg/Mg	AP42: Table 11.19.2-1, 50% ctrl
	EPCR2	PM	1.60E-03	1.60E-03	kg/Mg	AP42: Table 11.19.2-1, 90% ctrl, 2.1xPM_{10}
		PM_{10}	7.60E-04	7.60E-04	kg/Mg	AP42: Table 11.19.2-1, 90% ctrl

Summary of Current Emission Factors

Emission Point Unit	ID	Pollutant	Emission Factor Hourly	Annual	Units	Reference
FU4-A	EPCR4	PM	1.51E-03	1.51E-03	kg/Mg limestone	AP-42: 2.1 times PM_{10}
(cont)	(PC33-03)	PM_{10}	7.20E-04	7.20E-04	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1
	EPCR5	PM	6.05E-04	6.05E-04	kg/Mg	AP42: Table 11.19.2-1, 60% ctrl, 2.1xPM_{10}
		PM_{10}	2.88E-04	2.88E-04	kg/Mg	AP42: Table 11.19.2-1, 60% ctrl
	EPCR6	PM	6.05E-04	6.05E-04	kg/Mg	AP42: Table11.19.2-1, 60% ctrl, 2.1xPM_{10}
		PM_{10}	2.88E-04	2.88E-04	kg/Mg	AP42: Table 11.19.2-1, 60% ctrl
	EPCR7	PM	7.56E-04	7.56E-04	kg/Mg	AP42: Table11.19.2-1, 50% ctrl, 2.1xPM_{10}
		PM_{10}	3.60E-04	3.60E-04	kg/Mg	AP42: Table 11.19.2-1, 50% ctrl
	EPCR8	PM	3.78E-04	3.78E-04	kg/Mg	AP42: Table 11.19.2-1, 75% ctrl, 2.1xPM_{10}
		PM_{10}	1.80E-04	1.80E-04	kg/Mg	AP42: Table 11.19.2-1, 75% ctrl
	EPCR9	PM	3.78E-04	3.78E-04	kg/Mg	AP42: Table 11.19.2-1, 75% ctrl, 2.1xPM_{10}
		PM_{10}	1.80E-04	1.80E-04	kg/Mg	AP42: Table 11.19.2-1, 75% ctrl
FU4-B	EP 10	PM	3.78E-04	3.78E-04	kg/Mg limestone	AP-42: 2.1 times PM_{10}
	(PC9-03a)	PM_{10}	1.80E-04	1.80E-04	kg/Mg limestone	AP-42 (1/95): Sec. 11.19.2-1, 75% ctrl
	EP 11	PM	3.90	3.90	kg/ha/day	AP-42 (1/95): Table 11.12-1
	(PC9-03b)	PM_{10}	1.87	1.87	kg/ha/day	Eng. Judgement 48% of PM is PM_{10}
	EP 23	PM	1.51E-03	1.51E-03	kg/Mg limestone	AP-42: 2.1 times PM_{10}
	(PC27-03a)	PM_{10}	7.20E-04	7.20E-04	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1
	EP 24	PM	3.90	3.90	kg/ha/day	AP-42 (1/95): Table 11.12-1
	(PC27-03b)	PM_{10}	1.87	1.87	kg/ha/day	Eng. Judgement 48% of PM is PM_{10}
	EP 26	PM	1.51E-03	1.51E-03	kg/Mg limestone	AP-42: 2.1 times PM_{10}
	(PC7-03a)	PM_{10}	7.20E-04	7.20E-04	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1
	EP 27	PM	3.90	3.90	kg/ha/day	AP-42 (1/95): Table 11.12-1
	(PC28-03b)	PM_{10}	1.87	1.87	kg/ha/day	Eng. Judgement 48% of TSP is PM_{10}
	EP 29	PM	3.78E-04	3.78E-04	kg/Mg limestone	AP-42: 2.1 times PM_{10}
	(PC34-03a)	PM_{10}	1.80E-04	1.80E-04	kg/Mg limestone	AP-42 (1/95): Sec. 11.19.1, 75% ctrl
	EP 30	PM	3.90	3.90	kg/ha/day	AP-42 (1/95): Table 11.12-1
	(PC34-03b)	PM_{10}	1.87	1.87	kg/ha/day	Eng. Judgement 48% of TSP is PM_{10}
	EP 31	PM	3.90	3.90	kg/ha/day	AP-42 (1/95): Table 11.12-1
	(PC34-03b)	PM_{10}	1.87	1.87	kg/ha/day	Eng. Judgement 48% of TSP is PM_{10}
	EP 32	PM	0.291	0.291	kg/VKT	AP-42 (9/98): 13.2.2,s=8.3,W=111,M=10, treated (85% ctrl)
	(PC26-03a)	PM_{10}	0.078	0.078	kg/VKT	AP-42 (9/98): 13.2.2,s=8.3,W=111,M=10, treated (85% ctrl)
	EP 33	PM	1.51E-03	1.51E-03	kg/Mg limestone	AP-42: 2.1 times PM_{10}
	(PC26-03a)	PM_{10}	7.20E-04	7.20E-04	kg/Mg limestone	AP-42 (1/95): Sec. 11.19.1

Summary of Current Emission Factors

Emission Point			Emission Factor			
Unit	ID	Pollutant	Hourly	Annual	Units	Reference
FU4-B	EP 38	PM	0.291	0.291	kg/VKT	AP-42 (9/98): 13.2.2,s=8.3,W=111,M=10, treated (85% ctrl)
(cont)	(PC0-09)	PM_{10}	0.078	0.078	kg/VKT	AP-42 (9/98): 13.2.2,s=8.3,W=111,M=10, treated (85% ctrl)
	EP 39	PM	1.51E-03	1.51E-03	kg/Mg limestone	AP-42: 2.1 times PM_{10}
	(QA1-01)	PM_{10}	7.20E-04	7.20E-04	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1
	EP 43	PM	0.291	0.291	kg/VKT	AP-42 (9/98): 13.2.2,s=8.3,W=111,M=10, treated (85% ctrl)
	(PC0-08)	PM_{10}	0.078	0.078	kg/VKT	AP-42 (9/98): 13.2.2,s=8.3,W=111,M=10, treated (85% ctrl)
	EP 44	PM	3.78E-04	3.78E-04	kg/Mg limestone	AP-42: 2.1 times PM_{10}
	(PC36-03)	PM_{10}	1.80E-04	1.80E-04	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1, 75% ctrl
	EP 48	PM	3.78E-04	3.78E-04	kg/Mg limestone	AP-42: 2.1 times PM_{10}
	(PC38-02b)	PM_{10}	1.80E-04	1.80E-04	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1, 75% ctrl
	EP 49	PM	3.90	3.90	kg/ha/day	AP-42 (1/95): Table 11.12-1
	(PC38-02a)	PM_{10}	1.87	1.87	kg/ha/day	Eng. Judgement 48% of TSP is PM_{10}
	EP 51	PM	3.78E-04	3.78E-04	kg/Mg limestone	AP-42: 2.1 times PM_{10}
	(PC39-02a)	PM_{10}	1.80E-04	1.80E-04	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1, 75% ctrl
	EP 52	PM	3.90	3.90	kg/ha/day	AP-42 (1/95): Table 11.12-1
	(PC39-02b)	PM_{10}	1.87	1.87	kg/ha/day	Eng. Judgement 48% of TSP is PM_{10}
	EP 55	PM	1.51E-03	1.51E-03	kg/Mg limestone	AP-42: 2.1 times PM_{10}
	(PC36-01)	PM_{10}	7.20E-04	7.20E-04	kg/Mg limestone	AP-42 (1/95): Table 11.19.2-1
	EPCR10	PM	0.291	0.291	kg/VKT	AP-42 (9/98): 13.2.2,s=8.3,W=111,M=10, treated (85% ctrl)
	(PC0-06)	PM_{10}	0.078	0.078	kg/VKT	AP-42 (9/98): 13.2.2,s=8.3,W=111,M=10, treated (85% ctrl)

Permitted Emissions

Emission Point			Operating Parameter			Emission Factor			Emissions			
Unit	ID	Pollutant	per hour	per year	Unit	Hourly	Annual	Units	kg/hr	Mg/yr	lb/hr	ton/yr
OA	431.BF1 &	PM	1	8,760	hours	4.70	4.70	kg/hr	4.70	41.20	10.37	45.41
	476.BF3	PM_{10}	1	8,760	hours	3.95	3.95	kg/hr	3.95	34.61	8.71	38.15
		SO_2	118	852,750	Mg clinker	0.045	0.045	kg/Mg clinker	5.31	38.37	11.71	42.30
		NO_x	118	852,750	Mg clinker	2.956	1.854	kg/Mg clinker	348.81	1,581.00	769.12	1,742.73
		CO	118	852,750	Mg clinker	1.88	1.34	kg/Mg clinker	221.84	1,140.13	489.16	1,256.76
		VOC	454	3,282,838	GJ	9.38E-03	6.50E-03	kg/GJ	4.26	21.34	9.39	23.52
		Pb	118	852,750	Mg clinker	2.55E-05	2.55E-05	kg/Mg clinker	3.01E-03	2.17E-02	6.63E-03	2.40E-02
RM	341.BF1	PM	1	8,760	hours	0.272	0.272	kg/hr	0.27	2.38	0.60	2.62
		PM_{10}	1	8,760	hours	0.228	0.228	kg/hr	0.23	2.00	0.50	2.20
	351.BF1	PM	1	8,760	hours	0.086	0.086	kg/hr	0.09	0.76	0.19	0.83
		PM_{10}	1	8,760	hours	0.073	0.073	kg/hr	0.07	0.64	0.16	0.70
	351.BF2	PM	1	8,760	hours	0.108	0.108	kg/hr	0.11	0.95	0.24	1.04
		PM_{10}	1	8,760	hours	0.091	0.091	kg/hr	0.09	0.79	0.20	0.88
	371.BF1	PM	1	8,760	hours	0.167	0.167	kg/hr	0.17	1.46	0.37	1.61
		PM_{10}	1	8,760	hours	0.140	0.140	kg/hr	0.14	1.23	0.31	1.36
	Total	**PM**							**0.63**	**5.55**	**1.40**	**6.11**
		PM_{10}							**0.53**	**4.66**	**1.17**	**5.14**
HO	411.BF1	PM	1	8,760	hours	0.204	0.204	kg/hr	0.20	1.78	0.45	1.97
		PM_{10}	1	8,760	hours	0.171	0.171	kg/hr	0.17	1.50	0.38	1.65
	421.BF3	PM	1	8,760	hours	0.850	0.850	kg/hr	0.85	7.45	1.87	8.21
		PM_{10}	1	8,760	hours	0.714	0.714	kg/hr	0.71	6.26	1.57	6.90
	421.BF2	PM	1	8,760	hours	0.218	0.218	kg/hr	0.22	1.91	0.48	2.10
		PM_{10}	1	8,760	hours	0.183	0.183	kg/hr	0.18	1.60	0.40	1.77
	421.BF1	PM	1	8,760	hours	0.175	0.175	kg/hr	0.17	1.53	0.39	1.69
		PM_{10}	1	8,760	hours	0.147	0.147	kg/hr	0.15	1.29	0.32	1.42
	Total	**PM**							**1.45**	**12.67**	**3.19**	**13.97**
		PM_{10}							**1.22**	**10.65**	**2.68**	**11.73**

Permitted Emissions

Emission Point			Operating Parameter			Emission Factor			Emissions			
Unit	ID	Pollutant	per hour	per year	Unit	Hourly	Annual	Units	kg/hr	Mg/yr	lb/hr	ton/yr
CM	491.BF1	PM	1	8,760	hours	0.816	0.816	kg/hr	0.82	7.15	1.80	7.88
		PM_{10}	1	8,760	hours	0.686	0.686	kg/hr	0.69	6.01	1.51	6.62
	491.BF2	PM	1	8,760	hours	0.146	0.146	kg/hr	0.15	1.28	0.32	1.41
		PM_{10}	1	8,760	hours	0.123	0.123	kg/hr	0.12	1.08	0.27	1.19
	521.BF4	PM	1	8,760	hours	0.179	0.179	kg/hr	0.18	1.57	0.40	1.73
		PM_{10}	1	8,760	hours	0.151	0.151	kg/hr	0.15	1.32	0.33	1.45
	532.BF2	PM	1	8,760	hours	4.08E-02	4.08E-02	kg/hr	0.04	0.36	0.09	0.39
		PM_{10}	1	8,760	hours	3.43E-02	3.43E-02	kg/hr	0.03	0.30	0.08	0.33
	532.BF1	PM	1	8,760	hours	4.08E-02	4.08E-02	kg/hr	0.04	0.36	0.09	0.39
		PM_{10}	1	8,760	hours	3.43E-02	3.43E-02	kg/hr	0.03	0.30	0.08	0.33
	532.BF3	PM	1	8,760	hours	4.08E-02	4.08E-02	kg/hr	0.04	0.36	0.09	0.39
		PM_{10}	1	8,760	hours	3.43E-02	3.43E-02	kg/hr	0.03	0.30	0.08	0.33
	532.BF4	PM	1	8,760	hours	5.09E-02	5.09E-02	kg/hr	0.05	0.45	0.11	0.49
		PM_{10}	1	8,760	hours	4.28E-02	4.28E-02	kg/hr	0.04	0.37	0.09	0.41
	532.BF6	PM	1	8,760	hours	0.272	0.272	kg/hr	0.27	2.38	0.60	2.62
		PM_{10}	1	8,760	hours	0.228	0.228	kg/hr	0.23	2.00	0.50	2.20
	542.BF2	PM	1	8,760	hours	0.953	0.953	kg/hr	0.95	8.35	2.10	9.20
		PM_{10}	1	8,760	hours	0.801	0.801	kg/hr	0.80	7.01	1.77	7.73
	542.BF3	PM	1	8,760	hours	1.361	1.361	kg/hr	1.36	11.92	3.00	13.14
		PM_{10}	1	8,760	hours	1.143	1.143	kg/hr	1.14	10.01	2.52	11.04
	542.BF1	PM	1	8,760	hours	0.491	0.491	kg/hr	0.49	4.30	1.08	4.74
		PM_{10}	1	8,760	hours	0.412	0.412	kg/hr	0.41	3.61	0.91	3.98
	531.BF1	PM	1	8,760	hours	0.132	0.132	kg/hr	0.13	1.16	0.29	1.28
		PM_{10}	1	8,760	hours	0.111	0.111	kg/hr	0.11	0.97	0.24	1.07
	541.BF2	PM	1	8,760	hours	0.368	0.368	kg/hr	0.37	3.22	0.81	3.55
		PM_{10}	1	8,760	hours	0.309	0.309	kg/hr	0.31	2.71	0.68	2.98
	541.BF1	PM	1	8,760	hours	2.625	2.625	kg/hr	2.63	23.00	5.79	25.35
		PM_{10}	1	8,760	hours	2.205	2.205	kg/hr	2.21	19.32	4.86	21.29
	271.BF1	PM	1	8,760	hours	0.146	0.146	kg/hr	0.15	1.28	0.32	1.41
		PM_{10}	1	8,760	hours	0.123	0.123	kg/hr	0.12	1.08	0.27	1.19
	Total	**PM**							**7.66**	**67.13**	**16.90**	**73.99**
		PM_{10}							**6.44**	**56.39**	**14.19**	**62.15**

Permitted Emissions

Emission Point			Operating Parameter			Emission Factor			Emissions			
Unit	ID	Pollutant	per hour	per year	Unit	Hourly	Annual	Units	kg/hr	Mg/yr	lb/hr	ton/yr
CP	611.BF8	PM	1	8,760	hours	0.174	0.174	kg/hr	0.17	1.52	0.38	1.68
		PM_{10}	1	8,760	hours	0.146	0.146	kg/hr	0.15	1.28	0.32	1.41
	611.BF1	PM	1	8,760	hours	0.242	0.242	kg/hr	0.24	2.12	0.53	2.34
		PM_{10}	1	8,760	hours	0.203	0.203	kg/hr	0.20	1.78	0.45	1.96
	611.BF2	PM	1	8,760	hours	0.242	0.242	kg/hr	0.24	2.12	0.53	2.34
		PM_{10}	1	8,760	hours	0.203	0.203	kg/hr	0.20	1.78	0.45	1.96
	611.BF3	PM	1	8,760	hours	0.242	0.242	kg/hr	0.24	2.12	0.53	2.34
		PM_{10}	1	8,760	hours	0.203	0.203	kg/hr	0.20	1.78	0.45	1.96
	611.BF4	PM	1	8,760	hours	3.89E-02	3.89E-02	kg/hr	0.04	0.34	0.09	0.38
		PM_{10}	1	8,760	hours	3.27E-02	3.27E-02	kg/hr	0.03	0.29	0.07	0.32
	611.BF5	PM	1	8,760	hours	0.253	0.253	kg/hr	0.25	2.21	0.56	2.44
		PM_{10}	1	8,760	hours	0.212	0.212	kg/hr	0.21	1.86	0.47	2.05
	622.BF1	PM	1	8,760	hours	0.151	0.151	kg/hr	0.15	1.33	0.33	1.46
		PM_{10}	1	8,760	hours	0.127	0.127	kg/hr	0.13	1.11	0.28	1.23
	621.BF1	PM	1	8,760	hours	0.151	0.151	kg/hr	0.15	1.33	0.33	1.46
		PM_{10}	1	8,760	hours	0.127	0.127	kg/hr	0.13	1.11	0.28	1.23
	Total	**PM**							**1.49**	**13.09**	**3.29**	**14.43**
		PM_{10}							**1.26**	**10.99**	**2.77**	**12.12**
KG	521.BF1	PM	1	8,760	hours	3.89E-02	3.89E-02	kg/hr	0.04	0.34	0.09	0.38
		PM_{10}	1	8,760	hours	3.27E-02	3.27E-02	kg/hr	0.03	0.29	0.07	0.32
	521.BF2	PM	1	8,760	hours	0.389	0.389	kg/hr	0.39	3.41	0.86	3.75
		PM_{10}	1	8,760	hours	0.327	0.327	kg/hr	0.33	2.86	0.72	3.15
	521.BF3	PM	1	8,760	hours	0.215	0.215	kg/hr	0.22	1.89	0.48	2.08
		PM_{10}	1	8,760	hours	0.181	0.181	kg/hr	0.18	1.59	0.40	1.75
	532.BF5	PM	1	8,760	hours	0.179	0.179	kg/hr	0.18	1.57	0.39	1.73
		PM_{10}	1	8,760	hours	0.150	0.150	kg/hr	0.15	1.32	0.33	1.45
	521.BF5	PM	1	8,760	hours	3.89E-02	3.89E-02	kg/hr	0.04	0.34	0.09	0.38
		PM_{10}	1	8,760	hours	3.27E-02	3.27E-02	kg/hr	0.03	0.29	0.07	0.32
	Total	**PM**							**0.86**	**7.54**	**1.90**	**8.31**
		PM_{10}							**0.72**	**6.33**	**1.59**	**6.98**

Permitted Emissions

Emission Point Unit	ID	Pollutant	Operating Parameter per hour	per year	Unit	Emission Factor Hourly	Annual	Units	Emissions kg/hr	Mg/yr	lb/hr	ton/yr
CH	476.BF1	PM	1	8,760	hours	3.89E-02	3.89E-02	kg/hr	0.04	0.34	0.09	0.38
		PM_{10}	1	8,760	hours	3.27E-02	3.27E-02	kg/hr	0.03	0.29	0.07	0.32
	476.BF2	PM	1	8,760	hours	2.33E-01	2.33E-01	kg/hr	0.23	2.04	0.51	2.25
		PM_{10}	1	8,760	hours	1.96E-01	1.96E-01	kg/hr	0.20	1.72	0.43	1.89
	476.BF4	PM	1	8,760	hours	5.05E-02	5.05E-02	kg/hr	0.05	0.44	0.11	0.49
		PM_{10}	1	8,760	hours	4.25E-02	4.25E-02	kg/hr	0.04	0.37	0.09	0.41
	Total	**PM**							**0.32**	**2.83**	**0.71**	**3.12**
		PM_{10}							**0.27**	**2.37**	**0.60**	**2.62**
CC	471.BF1	PM	1	8,760	hours	2.02	2.02	kg/hr	2.02	17.71	4.46	19.52
		PM_{10}	1	8,760	hours	1.70	1.70	kg/hr	1.70	14.88	3.74	16.40
FU2	PT-FU-01	PM	0.82	3,600	VKT	0.779	0.779	kg/VKT	0.64	2.81	1.41	3.09
		PM_{10}	0.82	3,600	VKT	0.159	0.159	kg/VKT	0.13	0.57	0.29	0.63
	PT-FU-09	PM	2.74	20,000	VKT	0.355	0.355	kg/VKT	0.97	7.10	2.14	7.83
		PM_{10}	2.74	20,000	VKT	9.52E-02	9.52E-02	kg/VKT	0.26	1.90	0.58	2.10
	Total	**PM**							**1.61**	**9.90**	**3.56**	**10.92**
		PM_{10}							**0.39**	**2.48**	**0.86**	**2.73**
FU3	EP 1	PM	1,361	1,797,206	Mg limestone	8.40E-05	8.40E-05	kg/Mg limestone	0.114	0.151	0.25	0.17
	(PC-DLG)	PM_{10}	1,361	1,797,206	Mg limestone	4.00E-05	4.00E-05	kg/Mg limestone	0.054	0.072	0.12	0.08
	EP 2	PM	1,361	1,797,206	Mg limestone							
	(PC-BSG)	PM_{10}	1,361	1,797,206	Mg limestone							
	EP 3	PM	1,361	1,797,206	Mg limestone	1.51E-03	1.51E-03	kg/Mg limestone	2.06	2.72	4.54	3.00
	(PC-DZG)	PM_{10}	1,361	1,797,206	Mg limestone	7.20E-04	7.20E-04	kg/Mg limestone	0.98	1.29	2.16	1.43
	EP 4	PM	1,361	1,797,206	Mg limestone	1.51E-03	1.51E-03	kg/Mg limestone	2.06	2.72	4.54	3.00
	(PC-FEL)	PM_{10}	1,361	1,797,206	Mg limestone	7.20E-04	7.20E-04	kg/Mg limestone	0.98	1.29	2.16	1.43
	EP 5	PM	15.54	12,792.55	VKT	0.305	0.305	kg/VKT	4.75	3.91	10.46	4.31
	(PC0-01)	PM_{10}	15.54	12,792.55	VKT	0.081	0.081	kg/VKT	1.26	1.04	2.78	1.14
	EP 6	PM	1,361	1,797,206	Mg limestone	4.20E-06	4.20E-06	kg/Mg limestone	5.72E-03	7.55E-03	0.013	0.008
	(PC1-01)	PM_{10}	1,361	1,797,206	Mg limestone	2.00E-06	2.00E-06	kg/Mg limestone	2.72E-03	3.59E-03	0.006	0.004
	Total	**PM**							**8.98**	**9.50**	**19.80**	**10.47**
		PM_{10}							**3.28**	**3.70**	**7.23**	**4.08**

Permitted Emissions

Emission Point			Operating Parameter			Emission Factor			Emissions			
Unit	ID	Pollutant	per hour	per year	Unit	Hourly	Annual	Units	kg/hr	Mg/yr	lb/hr	ton/yr
CRUSH	EP 7	PM	1,361	1,797,206	Mg limestone	3.50E-05	3.50E-05	kg/Mg limestone	4.76E-02	6.29E-02	0.11	0.07
	(PC2-01)	PM_{10}	1,361	1,797,206	Mg limestone	1.68E-05	1.68E-05	kg/Mg limestone	2.29E-02	3.02E-02	0.05	0.03
	EP 17	PM	771	646,994	Mg limestone	6.30E-04	6.30E-04	kg/Mg limestone	0.49	0.41	1.07	0.45
	(PC16-02)	PM_{10}	771	646,994	Mg limestone	3.00E-04	3.00E-04	kg/Mg limestone	0.23	0.19	0.51	0.21
	EP 45	PM	363	381,015	Mg limestone	2.52E-04	2.52E-04	kg/Mg limestone	0.09	0.10	0.20	0.11
	(PC37-01)	PM_{10}	363	381,015	Mg limestone	1.20E-04	1.20E-04	kg/Mg limestone	0.04	0.05	0.10	0.05
	Total	**PM**							**0.62**	**0.57**	**1.38**	**0.62**
		PM_{10}							**0.30**	**0.27**	**0.66**	**0.30**
FU-BIN	EPCR3	PM	545	255,000	Mg limestone	1.51E-04	1.51E-04	kg/Mg limestone	0.08	0.04	0.18	0.04
	(PC33-03)	PM_{10}	545	255,000	Mg limestone	7.20E-05	7.20E-05	kg/Mg limestone	0.04	0.02	0.09	0.02
FU4-A	EP 8	PM	1,361	1,797,206	Mg limestone	7.56E-05	7.56E-05	kg/Mg limestone	0.10	0.14	0.23	0.15
	(PC3-01)	PM_{10}	1,361	1,797,206	Mg limestone	3.60E-05	3.60E-05	kg/Mg limestone	0.05	0.06	0.11	0.07
	EP 9	PM	1,361	1,797,206	Mg limestone	1.51E-04	1.51E-04	kg/Mg limestone	0.21	0.27	0.45	0.30
	(PC9-01)	PM_{10}	1,361	1,797,206	Mg limestone	7.20E-05	7.20E-05	kg/Mg limestone	0.10	0.13	0.22	0.14
	EP 12	PM	1,090	1,797,206	Mg limestone	7.56E-04	7.56E-04	kg/Mg limestone	0.82	1.36	1.82	1.50
	(PC31-01)	PM_{10}	1,090	1,797,206	Mg limestone	3.60E-04	3.60E-04	kg/Mg limestone	0.39	0.65	0.87	0.71
	EP 13	PM	1,090	1,797,206	Mg limestone	7.56E-04	7.56E-04	kg/Mg limestone	0.82	1.36	1.82	1.50
	(PC16-01)	PM_{10}	1,090	1,797,206	Mg limestone	3.60E-04	3.60E-04	kg/Mg limestone	0.39	0.65	0.87	0.71
	EP 14	PM	1,090	1,797,206	Mg limestone	1.51E-04	1.51E-04	kg/Mg limestone	0.16	0.27	0.36	0.30
	(PC16-01)	PM_{10}	1,090	1,797,206	Mg limestone	7.20E-05	7.20E-05	kg/Mg limestone	0.08	0.13	0.17	0.14
	EP 15	PM	1,905	1,797,206	Mg limestone	7.98E-04	7.98E-04	kg/Mg limestone	1.52	1.43	3.35	1.58
	(PC6-02)	PM_{10}	1,905	1,797,206	Mg limestone	3.80E-04	3.80E-04	kg/Mg limestone	0.72	0.68	1.60	0.75
	EP 16	PM	771	646,994	Mg limestone	7.56E-04	7.56E-04	kg/Mg limestone	0.58	0.49	1.29	0.54
	(PC18-01)	PM_{10}	771	646,994	Mg limestone	3.60E-04	3.60E-04	kg/Mg limestone	0.28	0.23	0.61	0.26
	EP 18	PM	771	646,994	Mg limestone	1.51E-03	1.51E-03	kg/Mg limestone	1.17	0.98	2.57	1.08
	(PC16-03)	PM_{10}	771	646,994	Mg limestone	7.20E-04	7.20E-04	kg/Mg limestone	0.56	0.47	1.22	0.51
	EP 19	PM	272	59,000	Mg limestone	1.51E-04	1.51E-04	kg/Mg limestone	4.11E-02	8.92E-03	0.09	0.01
	(PC22-01)	PM_{10}	272	59,000	Mg limestone	7.20E-05	7.20E-05	kg/Mg limestone	1.96E-02	4.25E-03	0.04	0.005
	EP 20	PM	272	196,000	Mg limestone	1.51E-04	1.51E-04	kg/Mg limestone	4.11E-02	2.96E-02	0.09	0.03
	(PC7-01)	PM_{10}	272	196,000	Mg limestone	7.20E-05	7.20E-05	kg/Mg limestone	1.96E-02	1.41E-02	0.04	0.02
	EP 21	PM	1,090	1,542,206	Mg limestone	1.51E-04	1.51E-04	kg/Mg limestone	0.16	0.23	0.36	0.26
	(PC13-01)	PM_{10}	1,090	1,542,206	Mg limestone	7.20E-05	7.20E-05	kg/Mg limestone	0.08	0.11	0.17	0.12
	EP 22	PM	272	59,000	Mg limestone	1.51E-04	1.51E-04	kg/Mg limestone	4.11E-02	8.92E-03	0.09	0.01
	(PC27-01)	PM_{10}	272	59,000	Mg limestone	7.20E-05	7.20E-05	kg/Mg limestone	1.96E-02	4.25E-03	0.04	0.005

Permitted Emissions

Emission Point			Operating Parameter			Emission Factor			Emissions			
Unit	ID	Pollutant	per hour	per year	Unit	Hourly	Annual	Units	kg/hr	Mg/yr	lb/hr	ton/yr
FU4-A	EP 25	PM	272	196,000	Mg limestone	1.51E-04	1.51E-04	kg/Mg limestone	4.11E-02	2.96E-02	0.09	0.03
(cont.)	(PC7-03a)	PM_{10}	272	196,000	Mg limestone	7.20E-05	7.20E-05	kg/Mg limestone	1.96E-02	1.41E-02	0.04	0.02
	EP 28	PM	1090	1,542,206	Mg limestone	1.51E-04	1.51E-04	kg/Mg limestone	0.16	0.23	0.36	0.26
	(PC34-01)	PM_{10}	1090	1,542,206	Mg limestone	7.20E-05	7.20E-05	kg/Mg limestone	0.08	0.11	0.17	0.12
	EP 34	PM	545	25,500	Mg limestone	7.56E-04	7.56E-04	kg/Mg limestone	0.41	0.02	0.91	0.02
	(PC24-03a)	PM_{10}	545	25,500	Mg limestone	3.60E-04	3.60E-04	kg/Mg limestone	0.20	0.01	0.43	0.01
	EP 35	PM	545	300,000	Mg limestone	7.56E-04	7.56E-04	kg/Mg limestone	0.41	0.23	0.91	0.25
	(QA6-01)	PM_{10}	545	300,000	Mg limestone	3.60E-04	3.60E-04	kg/Mg limestone	0.20	0.11	0.43	0.12
	EP36	PM	545	1,849,979	Mg limestone	7.56E-04	7.56E-04	kg/Mg limestone	0.41	1.40	0.91	1.54
	(QA5-01)	PM_{10}	545	1,849,979	Mg limestone	3.60E-04	3.60E-04	kg/Mg limestone	0.20	0.67	0.43	0.73
	EP 37	PM	545	2,230,994	Mg limestone	7.56E-04	7.56E-04	kg/Mg limestone	0.41	1.69	0.91	1.86
	(KA3-01)	PM_{10}	545	2,230,994	Mg limestone	3.60E-04	3.60E-04	kg/Mg limestone	0.20	0.80	0.43	0.89
	EP 40	PM	545	38,102	Mg limestone	1.51E-03	1.51E-03	kg/Mg limestone	0.82	0.06	1.82	0.06
	(QA2-01)	PM_{10}	545	38,102	Mg limestone	7.20E-04	7.20E-04	kg/Mg limestone	0.39	0.03	0.87	0.03
	EP 41	PM	545	38,102	Mg limestone	1.51E-03	1.51E-03	kg/Mg limestone	0.82	0.06	1.82	0.06
	(QA8-01)	PM_{10}	545	38,102	Mg limestone	7.20E-04	7.20E-04	kg/Mg limestone	0.39	0.03	0.87	0.03
	EP 42	PM	545	38,102	Mg limestone	1.51E-03	1.51E-03	kg/Mg limestone	0.82	0.06	1.82	0.06
	(KA3-01)	PM_{10}	545	38,102	Mg limestone	7.20E-04	7.20E-04	kg/Mg limestone	0.39	0.03	0.87	0.03
	EP 46	PM	544	381,015	Mg limestone	1.51E-04	1.51E-04	kg/Mg limestone	0.08	0.06	0.18	0.06
	(PC38-01)	PM_{10}	544	381,015	Mg limestone	7.20E-05	7.20E-05	kg/Mg limestone	0.04	0.03	0.09	0.03
	EP 47	PM	544	381,015	Mg limestone	1.51E-04	1.51E-04	kg/Mg limestone	0.08	0.06	0.18	0.06
	(PC38-01)	PM_{10}	544	381,015	Mg limestone	7.20E-05	7.20E-05	kg/Mg limestone	0.04	0.03	0.09	0.03
	EP 50	PM	544	381,015	Mg limestone	1.51E-04	1.51E-04	kg/Mg limestone	0.08	0.06	0.18	0.06
	(PC39-01)	PM_{10}	544	381,015	Mg limestone	7.20E-05	7.20E-05	kg/Mg limestone	0.04	0.03	0.09	0.03
	EP 53	PM	1090	1,542,206	Mg limestone	7.56E-04	7.56E-04	kg/Mg limestone	0.82	1.17	1.82	1.29
	(PC11-01)	PM_{10}	1090	1,542,206	Mg limestone	3.60E-04	3.60E-04	kg/Mg limestone	0.39	0.56	0.87	0.61
	EP 54	PM	545	255,000	Mg limestone	7.56E-04	7.56E-04	kg/Mg limestone	0.41	0.19	0.91	0.21
	(PC30-01)	PM_{10}	545	255,000	Mg limestone	3.60E-04	3.60E-04	kg/Mg limestone	0.20	0.09	0.43	0.10
	EP 56	PM	545	1,269,479	Mg limestone	7.56E-04	7.56E-04	kg/Mg limestone	0.41	0.96	0.91	1.06
	(PC29-01)	PM_{10}	545	1,269,479	Mg limestone	3.60E-04	3.60E-04	kg/Mg limestone	0.20	0.46	0.43	0.50
	EP 57	PM	545	272,727	Mg limestone	7.56E-04	7.56E-04	kg/Mg limestone	0.41	0.21	0.91	0.23
	(PC33-01)	PM_{10}	545	272,727	Mg limestone	3.60E-04	3.60E-04	kg/Mg limestone	0.20	0.10	0.43	0.11
	EPCR1	PM	545	255000	Mg limestone	7.56E-04	7.56E-04	kg/Mg limestone	0.41	0.19	0.91	0.21
	(PT-FU-07)	PM_{10}	545	255000	Mg limestone	3.60E-04	3.60E-04	kg/Mg limestone	0.20	0.09	0.43	0.10

Permitted Emissions

Emission Point			Operating Parameter			Emission Factor			Emissions			
Unit	ID	Pollutant	per hour	per year	Unit	Hourly	Annual	Units	kg/hr	Mg/yr	lb/hr	ton/yr
FU4-A	EPCR2	PM	545	255,000	Mg limestone	1.60E-03	1.60E-03	kg/Mg limestone	0.87	0.41	1.92	0.45
(cont)	(PT-FU-07)	PM_{10}	545	255,000	Mg limestone	7.60E-04	7.60E-04	kg/Mg limestone	0.41	0.19	0.91	0.21
	EPCR4	PM	545	127,500	Mg limestone	1.51E-03	1.51E-03	kg/Mg limestone	0.82	0.19	1.82	0.21
	(PC33-03)	PM_{10}	545	127,500	Mg limestone	7.20E-04	7.20E-04	kg/Mg limestone	0.39	0.09	0.87	0.10
	EPCR5	PM	545	127,500	Mg limestone	6.05E-04	6.05E-04	kg/Mg limestone	0.33	0.08	0.73	0.09
	(PT-FU-07)	PM_{10}	545	127,500	Mg limestone	2.88E-04	2.88E-04	kg/Mg limestone	0.16	0.04	0.35	0.04
	EPCR6	PM	545	127,500	Mg limestone	6.05E-04	6.05E-04	kg/Mg limestone	0.33	0.08	0.73	0.09
	(PT-FU-07)	PM_{10}	545	127,500	Mg limestone	2.88E-04	2.88E-04	kg/Mg limestone	0.16	0.04	0.35	0.04
	EPCR7	PM	545	127,500	Mg limestone	7.56E-04	7.56E-04	kg/Mg limestone	0.41	0.10	0.91	0.11
	(PT-FU-07)	PM_{10}	545	127,500	Mg limestone	3.60E-04	3.60E-04	kg/Mg limestone	0.20	0.05	0.43	0.05
	EPCR8	PM	545	127,500	Mg limestone	3.78E-04	3.78E-04	kg/Mg limestone	0.21	0.05	0.45	0.05
	(PT-FU-07)	PM_{10}	545	127,500	Mg limestone	1.80E-04	1.80E-04	kg/Mg limestone	0.10	0.02	0.22	0.03
	EPCR9	PM	545	127,500	Mg limestone	3.78E-04	3.78E-04	kg/Mg limestone	0.21	0.05	0.45	0.05
	(PT-FU-07)	PM_{10}	545	127,500	Mg limestone	1.80E-04	1.80E-04	kg/Mg limestone	0.10	0.02	0.22	0.03
	Total	**PM**							**15.90**	**14.18**	**35.06**	**15.63**
		PM_{10}							**7.57**	**6.75**	**16.70**	**7.44**
FU4-B	EP 10	PM	1361	1,797,206	Mg limestone	3.78E-04	3.78E-04	kg/Mg limestone	0.51	0.68	1.13	0.75
	(PC9-03a)	PM_{10}	1361	1,797,206	Mg limestone	1.80E-04	1.80E-04	kg/Mg limestone	0.24	0.32	0.54	0.36
	EP 11	PM	0.81	1.0125	ha	3.90	3.90	kg/ha/day	0.13	1.44	0.29	1.59
	(PC9-03b)	PM_{10}	0.81	1.0125	ha	1.87	1.87	kg/ha/day	0.06	0.69	0.14	0.76
	EP 23	PM	272	59,000	Mg limestone	1.51E-03	1.51E-03	kg/Mg limestone	0.41	0.09	0.91	0.10
	(PC27-03a)	PM_{10}	272	59,000	Mg limestone	7.20E-04	7.20E-04	kg/Mg limestone	0.20	0.04	0.43	0.05
	EP 24	PM	0.33	0.4125	ha	3.90	3.90	kg/ha/day	0.05	0.59	0.12	0.65
	(PC27-03b)	PM_{10}	0.33	0.4125	ha	1.87	1.87	kg/ha/day	0.03	0.28	0.06	0.31
	EP 26	PM	272	196,000	Mg limestone	1.51E-03	1.51E-03	kg/Mg limestone	0.41	0.30	0.91	0.33
	(PC7-03a)	PM_{10}	272	196,000	Mg limestone	7.20E-04	7.20E-04	kg/Mg limestone	0.20	0.14	0.43	0.16
	EP 27	PM	0.19	0.2375	ha	3.90	3.90	kg/ha/day	0.03	0.34	0.07	0.37
	(PC28-03b)	PM_{10}	0.19	0.2375	ha	1.87	1.87	kg/ha/day	0.01	0.16	0.03	0.18
	EP 29	PM	1090	1,242,206	Mg limestone	3.78E-04	3.78E-04	kg/Mg limestone	0.41	0.47	0.91	0.52
	(PC34-03a)	PM_{10}	1090	1,242,206	Mg limestone	1.80E-04	1.80E-04	kg/Mg limestone	0.20	0.22	0.43	0.25
	EP 30	PM	0.35	0.4375	ha	3.90	3.90	kg/ha/day	0.06	0.62	0.13	0.69
	(PC34-03b)	PM_{10}	0.35	0.4375	ha	1.87	1.87	kg/ha/day	0.03	0.30	0.06	0.33
	EP 31	PM	0.14	0.1750	ha	3.90	3.90	kg/ha/day	0.02	0.25	0.05	0.27
	(PC34-03b)	PM_{10}	0.14	0.1750	ha	1.87	1.87	kg/ha/day	0.01	0.12	0.02	0.13

Permitted Emissions

Emission Point Unit	ID	Pollutant	Operating Parameter per hour	per year	Unit	Emission Factor Hourly	Annual	Units	Emissions kg/hr	Mg/yr	lb/hr	ton/yr
FU4-B	EP 32	PM	6.44	804.65	VKT	0.291	0.291	kg/Mg limestone	1.87	0.23	4.13	0.26
(cont.)	(PC26-03a)	PM_{10}	6.44	804.65	VKT	0.078	0.078	kg/Mg limestone	0.50	0.06	1.11	0.07
	EP 33	PM	545	25,500	Mg limestone	1.51E-03	1.51E-03	kg/Mg limestone	0.82	0.04	1.82	0.04
	(PC26-03a)	PM_{10}	545	25,500	Mg limestone	7.20E-04	7.20E-04	kg/Mg limestone	0.39	0.02	0.87	0.02
	EP 38	PM	6.44	1,126.51	VKT	0.291	0.291	kg/VKT	1.87	0.33	4.13	0.36
	(PC0-09)	PM_{10}	6.44	1,126.51	VKT	0.078	0.078	kg/VKT	0.50	0.09	1.11	0.10
	EP 39	PM	545	38,102	Mg limestone	1.51E-03	1.51E-03	kg/Mg limestone	0.82	0.06	1.82	0.06
	(QA1-01)	PM_{10}	545	38,102	Mg limestone	7.20E-04	7.20E-04	kg/Mg limestone	0.39	0.03	0.87	0.03
	EP 43	PM	6.44	11,265.10	VKT	0.291	0.291	kg/VKT	1.87	3.28	4.13	3.61
	(PC0-08)	PM_{10}	6.44	11,265.10	VKT	0.078	0.078	kg/VKT	0.50	0.88	1.11	0.97
	EP 44	PM	544	381,015	Mg limestone	3.78E-04	3.78E-04	kg/Mg limestone	0.21	0.14	0.45	0.16
	(PC36-03)	PM_{10}	544	381,015	Mg limestone	1.80E-04	1.80E-04	kg/Mg limestone	0.10	0.07	0.22	0.08
	EP 48	PM	544	19,050.75	Mg limestone	3.78E-04	3.78E-04	kg/Mg limestone	2.06E-01	7.20E-03	0.45	0.01
	(PC38-02b)	PM_{10}	544	19,050.75	Mg limestone	1.80E-04	1.80E-04	kg/Mg limestone	9.79E-02	3.43E-03	0.22	0.004
	EP 49	PM	0.01	0.0125	ha	3.90	3.90	kg/ha/day	1.63E-03	1.78E-02	0.004	0.02
	(PC38-02a)	PM_{10}	0.01	0.0125	ha	1.87	1.87	kg/ha/day	7.80E-04	8.54E-03	0.002	0.01
	EP 51	PM	544	19,050.75	Mg limestone	3.78E-04	3.78E-04	kg/Mg limestone	2.06E-01	7.20E-03	0.45	0.01
	(PC39-02a)	PM_{10}	544	19,050.75	Mg limestone	1.80E-04	1.80E-04	kg/Mg limestone	9.79E-02	3.43E-03	0.22	0.004
	EP 52	PM	0.03	0.0375	ha	3.90	3.90	kg/ha/day	4.88E-03	5.34E-02	0.01	0.06
	(PC39-02b)	PM_{10}	0.03	0.0375	ha	1.87	1.87	kg/ha/day	2.34E-03	2.56E-02	0.01	0.03
	EP 55	PM	544	381,015	Mg limestone	1.51E-03	1.51E-03	kg/Mg limestone	0.82	0.58	1.81	0.64
	(PC36-01)	PM_{10}	544	381,015	Mg limestone	7.20E-04	7.20E-04	kg/Mg limestone	0.39	0.27	0.86	0.30
	EPCR10	PM	18.35	9,052.31	VKT	0.291	0.291	kg/VKT	5.34	2.63	11.77	2.90
	(PC0-06)	PM_{10}	18.35	9,052.31	VKT	0.078	0.078	kg/VKT	1.43	0.71	3.15	0.78
	Total	**PM**							**16.09**	**12.14**	**35.48**	**13.39**
		PM_{10}							**5.38**	**4.45**	**11.87**	**4.90**

Summary of HAP Emissions

Emission Point Unit	ID	Pollutant	Operating Parameter per hour	per year	Unit	Emission Factor Hourly	Annual	Units	Emissions kg/hr	Mg/yr	lb/hr	ton/yr
OA	OA-5	Benzene	118	852,750	Mg clinker	8.00E-03	8.00E-03	kg/Mg clinker	0.944	6.822	2.082	7.520
	(431.BF1	Naphtalene	118	852,750	Mg clinker	8.50E-04	8.50E-04	kg/Mg clinker	0.100	0.725	0.221	0.799
	& 476.BF2)	Formaldehyde	118	852,750	Mg clinker	2.30E-04	2.30E-04	kg/Mg clinker	0.027	0.196	0.060	0.216
		Phenol	118	852,750	Mg clinker	5.50E-05	5.50E-05	kg/Mg clinker	0.006	0.047	0.014	0.052
		Toluene	118	852,750	Mg clinker	1.00E-04	1.00E-04	kg/Mg clinker	0.012	0.085	0.026	0.094
		TEQ Dioxin/Furan	118	852,750	Mg clinker	2.34E-07	2.71E-08	kg/Mg clinker	2.76E-05	2.31E-05	6.09E-05	2.55E-05
		Methylene Chloride	118	852,750	Mg clinker	2.50E-04	2.50E-04	kg/Mg clinker	0.030	0.213	0.065	0.235
		Chlorobenzene	118	852,750	Mg clinker	8.00E-06	8.00E-06	kg/Mg clinker	0.001	0.007	0.002	0.008
		Styrene	118	852,750	Mg clinker	7.50E-07	7.50E-07	kg/Mg clinker	8.85E-05	6.40E-04	1.95E-04	7.05E-04
		Xylene	118	852,750	Mg clinker	6.50E-05	6.50E-05	kg/Mg clinker	0.008	0.055	0.017	0.061
		Acetaldehyde	118	852,750	Mg clinker	1.09E-04	1.09E-04	kg/Mg clinker	0.013	0.093	0.028	0.102
		Chloroform	118	852,750	Mg clinker	3.13E-04	3.13E-04	kg/Mg clinker	0.037	0.267	0.081	0.294
		Carbon Disulfide	118	852,750	Mg clinker	5.50E-05	5.50E-05	kg/Mg clinker	0.006	0.047	0.014	0.052
		Ethyl Benzene	118	852,750	Mg clinker	9.50E-06	9.50E-06	kg/Mg clinker	0.001	0.008	0.002	0.009
		Carbon Tetrachloride	118	852,750	Mg clinker	3.13E-04	3.13E-04	kg/Mg clinker	0.037	0.267	0.081	0.294
		Hydrogen Chloride	118	852,750	Mg clinker	8.91E-03	8.91E-03	kg/Mg clinker	1.051	7.598	2.318	8.375
		Hydrogen Fluoride	118	852,750	Mg clinker	5.48E-04	5.48E-04	kg/Mg clinker	0.065	0.467	0.143	0.515
		Antimony	118	852,750	Mg clinker	5.50E-06	3.18E-06	kg/Mg clinker	0.001	0.003	0.001	0.003
		Arsenic	118	852,750	Mg clinker	3.94E-06	2.01E-06	kg/Mg clinker	4.65E-04	1.71E-03	1.03E-03	1.89E-03
		Beryllium	118	852,750	Mg clinker	5.50E-07	2.72E-07	kg/Mg clinker	6.49E-05	2.32E-04	1.43E-04	2.56E-04
		Cadmium	118	852,750	Mg clinker	1.10E-05	3.66E-06	kg/Mg clinker	1.30E-03	3.12E-03	2.86E-03	3.44E-03
		Chromium	118	852,750	Mg clinker	8.06E-05	2.69E-05	kg/Mg clinker	0.010	0.023	0.021	0.025
		Cobalt	118	852,750	Mg clinker	1.09E-04	1.09E-04	kg/Mg clinker	0.013	0.093	0.028	0.102
		Manganese	118	852,750	Mg clinker	4.96E-05	2.57E-05	kg/Mg clinker	0.006	0.022	0.013	0.024
		Mercury	118	852,750	Mg clinker	1.19E-04	6.87E-05	kg/Mg clinker	0.014	0.059	0.031	0.065
		Nickel	118	852,750	Mg clinker	9.88E-05	3.05E-05	kg/Mg clinker	0.012	0.026	0.026	0.029
		Selenium	118	852,750	Mg clinker	7.14E-05	1.82E-05	kg/Mg clinker	0.008	0.016	0.019	0.017
CM	542.BF2	Ethylene Glycol	1	8,760	hours	1.50E-01	7.50E-02	kg/hour	0.150	0.657	0.331	0.724
		Diethanolamine	1	8,760	hours	1.50E-01	7.50E-02	kg/hour	0.150	0.657	0.331	0.724
	541.BF1	Ethylene Glycol	1	8,760	hours	6.00E-02	3.00E-02	kg/hour	0.060	0.263	0.132	0.290
		Diethanolamine	1	8,760	hours	6.00E-02	3.00E-02	kg/hour	0.060	0.263	0.132	0.290
TOTAL HAP EMISSIONS												**20.926**