February 12, 2007

Mr. Dario Rocha
City of Albuquerque
Environmental Health Department
Air Quality Division

Mr. Rocha:

American Cement Corporation proposes to modify its Authority to Construct Air Quality Permit No. 902 for the American Cement Facility. Prior to commencement American Cement is required to obtain a permit modification under Albuquerque / Bernalillo County Air Quality Control Board Regulation 20 NMAC 11.41. Attached is an Application for Authority-to-Construct Permit Modification.

The American Cement Facility is approximately four (4) acres in size and is located at 4702 Carlton NW Albuquerque, New Mexico near the corner of Edith Blvd. and Griegos Rd. The UTM coordinates of the entrance are 350,951 East and 3,888,587 North, Zone 13.

Facility Operations

The facility is currently permitted to unload, store, and load Portland cement and flyash. Cement and flyash products are unloaded from trucks and train cars and loaded into storage silos. Cement and flyash are transferred from the silos to trucks for distribution. American Cement is currently permitted to process 100,000 tons per year of Portland cement and 15,000 tons per year of flyash.

The proposed modification of Permit No. 903 is to increase the maximum operating capacity of Portland cement to 700,000 tons per year and 180,308 tons per year of flyash. American Cement proposes to operate twenty (20) hours per day, six (6) days per week, and fifty two (52) weeks per year.

Under the proposed modification the facility will consist of five (5) storage silos, five (5) baghouses, and the facility haul road. All equipment at the American Cement Facility is powered by electricity supplied by PNM.

Cement product is pneumatically loaded from train cars and trucks to the cement silo. Trains are unloaded in a partially enclosed building west of the cement silo using a boot lift rail connector. The connector apparatus is hydraulically lifted to form a seal around the unloading point under the train cars. Negative pressure is used to transfer cement from the train cars to the cement silo. The "truck to cement silo" transfer points are located to the east and south of the cement silo. Four (4) inch aluminum pipes are connected to cement trucks and negative pressure is used to move the product into the

silo. Cement products are loaded into trucks from bulk loader spouts located beneath the cement silos. The boot lift rail connector, truck to cement silo transfer points, and bulk loader spouts are all connected to the cement baghouse negative pressure system.

Flyash is loaded into the flyash silo from trucks only. The flyash silo is loaded by connecting flyash trucks to four (4) inch aluminum pipes and applying negative pressure. The Flyash product is loaded into trucks from a bulk loader spout located beneath the flyash silo. The flyash unloading point and bulk loader spout are connected to the flyash baghouse negative pressure system.

A paved haul road facilitates movement of vehicles at the American Cement Facility. The haul road is paved and 568 feet in length.

Regulated Air Contaminants

Process equipment at the American Cement Facility will emit TSP, PM 10, and PM 2.5. The permit modification tables for uncontrolled and controlled emissions include emission rates for these contaminants only. All other contaminant columns have been deleted to simplify the emission tables.

Air Dispersion Modeling

TSP, PM 10, and PM 2.5 have been modeled with a US EPA approved atmospheric dispersion model to demonstrate ambient Air Quality impacts. An air dispersion model analysis report has been included to present model results and summarize all information used in the air dispersion model (See Permit 902 Modification Attachment 5).

List of Attachments

Attachment 1 – AP-42 Section Sheets
Attachment 2 – Emission Controls Data
Attachment 3 – Emission Calculations
Attachment 4 – Air Dispersion Analysis Report
Attachment 5 – Emissions during Normal Operations, Maximum Operations, and Malfunction
Attachment 6 – Site Map and Facility Schematic

If there are any questions please contact Jonathan Madrid at 505.640,9394.

Sincerely,

Jonathan Madrid
GL Environmental, Inc.

Attachment 2

Emission Controls Data

DUST PENETRATION AND OUTLET EMISSIONS DATA

Test Media	Inlet Dust Concentration (gr/ft^3; avg)	Dust Penetration (X 10^{-5})					Outlet Dust Load (gr/ft^3) Cycles # 2-4	Dust Collection Efficiency %, Cycles # 2-4
		1st Cycle	2nd Cycle	3rd Cycle	4th Cycle	Avg. Cycles #2-4		
*PE/PE 609/1 MPS Code 9	2.93	31.7	9.9	4.9	3.2	6.0	0.00018	99.993
**PE/PE 559/1 Code 9	2.98	135	29.8	18.7	10.4	19.6	0.00059	99.941
Stnd. 16oz. Polyester Felt	2.92	146	103	54.1	37.5	61.7	0.00180	99.821

*PE/PE 609/1 MPS Code 9 is an 18 oz. polyester felt with heavy scrim support, MPS high efficiency fibers, and Code 9 bath treatment.

**PE/PE 559/1 Code 9 is a 16 oz. polyester felt with heavy scrim support, dense needling, and Code 9 treatment.

TEST CONDITIONS

Test Dust:	Ottawa Silica #45
Average Particle Size:	4.0 microns
Dust Loading (nominal):	3 gr/ft^3
Air-To-Cloth Ratio:	6.0 fpm
Temperature:	Ambient (67 - 72°F)
Relative Humidity:	Ambient (56 - 60%)
Pulsing Interval:	5 minutes

Note: Testing performed by Grubb Filtration Testing Services, Inc.

Attachment 3

Emission Calculations

Information Used to Determine Emissions

Uncontrolled emission rates for pneumatic loading and unloading of the cement and flyash silos have been calculated using AP-42 11.2 (October 2001) calculations. Cement emission rates have been calculated using emission factors for cement and flyash emission rates have been calculated using emission factors for cement supplements. Manufacturer specifications for baghouse filters have been used to determine emission control rates for material transfer points. Data from a Grub Filtration Testing Services, Inc. indicates dust collection efficiency from bags used at the American Cement Facility is greater than 99.8% (See Permit 902 Modification Attachment 3).

Haul road emissions have been calculated using AP-42, Fifth Edition, Volume I, Chapter 13, Miscellaneous Sources, 13.2.2 Unpaved Roads (Supplement E) calculation procedures. The haul road at the American Cement Facility is completely paved and a 95% control value will be used for the haul road emission rate.

A copy of AP-42 Section Sheets has been included in Permit 902 Modification Attachment 2, and all calculations used to determine controlled and uncontrolled emission rates have been included in Attachment 4.

Throughput Capacity

The American Cement Facility proposes to operate 6,240 hours per year. Hourly throughput of cement will be 112.2 tons per hour. An estimated one half of the cement is transported to the American Cement Facility by train and one half by truck. The emission rates for the silos were calculated using a process rate of 112.2 tons per hour. All emission calculations have been included in Attachment 4.

Proposed hourly throughput of flyash will be 28.9 tons per hour. The emission rate for the silo was calculated using a process rate of 28.9 tons per hour.

Total throughput of cement and flyash at the American Cement Facility will be 141.1 tons per hour and can be serviced by approximately six (6) truck trips per hour. An average load weight of twenty five (25) tons per truck trip is assumed.

Equipment Emissions

Units 1-4: Cement Silos 1-4

Uncontrolled Emission Rate

Cement Transfer Rate (Tons/hr)	TSP Emission Factor (lbs/ton)	TSP Uncontrolled Emission Rate (lbs/hr)	Hours of Operation	Tons Per Year (Tons/yr)
28.05	0.72	20.196	8760	88.459

Cement Transfer Rate (Tons/hr)	PM – 10 Emission Factor (lbs/ton)	PM – 10 Uncontrolled Emission Rate (lbs/hr)	Hours of Operation	Tons Per Year (Tons/yr)
28.05	0.46	12.903	8760	56.515

PM – 10 Uncontrolled Emission Rate	PM – 2.5 Conversion Rate	PM – 2.5 Uncontrolled Emission Rate (lbs/hr)	Hours of Operation	Tons Per Year (Tons/yr)
12.903	0.33	4.258	8760	18.65

Controlled Emission Rate

TSP Uncontrolled Emission Rate (lbs/hr)	Control Factor	TSP Controlled Emission Rate (lbs/hr)	Hours of Operation	Tons Per Year (Tons/yr)
20.196	99%	0.20196	6240	0.63012

Cement Transfer Rate (Tons/hr)	Control Factor	PM – 10 Controlled Emission Rate (lbs/hr)	Hours of Operation	Tons Per Year (Tons/yr)
12.903	99%	0.12903	6240	0.40257

Cement Transfer Rate (Tons/hr)	Control Factor	PM – 2.5 Controlled Emission Rate (lbs/hr)	Hours of Operation	Tons Per Year (Tons/yr)
4.258	99%	0.04258	6240	0.13285

Unit 5: Flyash Silo

Uncontrolled Emission Rate

Cement Transfer Rate (Tons/hr)	TSP Emission Factor (lbs/ton)	TSP Uncontrolled Emission Rate (lbs/hr)	Hours of Operation	Tons Per Year (Tons/yr)
28.9	3.14	90.746	8760	397.467

Cement Transfer Rate (Tons/hr)	PM – 10 Emission Factor (lbs/ton)	PM – 10 Uncontrolled Emission Rate (lbs/hr)	Hours of Operation	Tons Per Year (Tons/yr)
28.9	1.1	31.79	8760	139.24

PM – 10 Uncontrolled Emission Rate	PM – 2.5 Conversion Rate	PM – 2.5 Uncontrolled Emission Rate (lbs/hr)	Hours of Operation	Tons Per Year (Tons/yr)
31.79	0.33	10.491	8760	45.949

Controlled Emission Rate

TSP Uncontrolled Emission Rate (lbs/hr)	Control Factor	TSP Controlled Emission Rate (lbs/hr)	Hours of Operation	Tons Per Year (Tons/yr)
90.746	99%	0.90746	6240	2.831

Cement Transfer Rate (Tons/hr)	Control Factor	PM – 10 Controlled Emission Rate (lbs/hr)	Hours of Operation	Tons Per Year (Tons/yr)
31.79	99%	0.3179	6240	0.99185

Cement Transfer Rate (Tons/hr)	Control Factor	PM – 2.5 Controlled Emission Rate (lbs/hr)	Hours of Operation	Tons Per Year (Tons/yr)
10.491	99%	0.10491	6240	0.32732

Unit 6: Haul Road

Uncontrolled Emission Rate

TSP

T	L	VMT	W	E	PER
Average Number of Round Trips/Hour	One-Way Road Length (miles)	Vehicle Mile Traveled per Hour (VMT) 2xTxL = VMT	Average Vehicle Weight (tons)	TSP Emission Rate (lb/VMT) $2.77 \times W^{0.5} = E$	TSP Uncontrolled Emission Rate (lb/hr) VMT x E = PER
6.000	0.108	1.296	25	13.85	17.950

TSP Uncontrolled Emission Rate (lb/hr)	Hours of Operation	Tons Per Year (tons/yr)
17.950	8760	78.619

PM – 10

T	L	VMT	W	E	PER
Average Number of Round Trips/Hour	One-Way Road Length (miles)	Vehicle Mile Traveled per Hour (VMT) 2xTxL = VMT	Average Vehicle Weight (tons)	PM – 10 Emission Rate (lb/VMT) $0.805 \times W^{0.4} = E$	PM – 10 Uncontrolled Emission Rate (lb/hr) VMT x E = PER
6.000	0.108	1.296	25	2.917	3.781

PM – 10 Uncontrolled Emission Rate (lb/hr)	Hours of Operation	Tons Per Year (tons/yr)
3.781	8760	16.5596

PM – 2.5

PM – 10 Uncontrolled Emission Rate	PM – 2.5 Conversion Rate	PM – 2.5 Uncontrolled Emission Rate	Hours of Operation	Tons per Year (tons/yr)
3.781	0.33	1.2477	8760	5.465

Unit 6: Haul Road

Controlled Emission Rate

TSP

TSP Uncontrolled Emission Rate (lb/hr)	Haul Road Control Efficiency	TSP Controlled Emission Rate (lb/hr) PER x (1-Eff.) = PTE	Hours of Operation	Tons per Year (tons/yr)
17.950	95%	0.8975	6240	2.8002

PM – 10

PM – 10 Uncontrolled Emission Rate (lb/hr)	Haul Road Control Efficiency	PM – 10 Controlled Emission Rate (lb/hr) PER x (1-Eff.) = PTE	Hours of Operation	Tons per Year (tons/yr)
3.781	95%	0.18905	6240	0.5898

PM – 2,5

PM – 2.5 Uncontrolled Emission Rate (lb/hr)	Haul Road Control Efficiency	PM – 10 Controlled Emission Rate (lb/hr) PER x (1-Eff.) = PTE	Hours of Operation	Tons per Year (tons/yr)
1.2477	95%	0.06239	6240	0.19464

Facility Totals

Uncontrolled Emissions

	lb/hr	ton/yr
TSP	189.48	829.922
PM – 10	99.9616	381.86
PM – 2.5	28.7707	126.014

Controlled Emissions

	lb/hr	ton/yr
TSP	2.6128	8.15168
PM – 10	1.02307	3.19193
PM – 2.5	0.33762	1.05336

Attachment 4

Air Dispersion Model Analysis Report

Air Dispersion Model Analysis Report

Albuquerque Environmental Health Department

Authority to Construct Permit No. 902

American Cement Facility

PREPARED FOR:

American Cement Corporation

February 14, 2005

PREPARED BY:

GL ENVIRONMENTAL, INC.
P.O. Box 1746
Las Vegas, New Mexico 87701
(505) 259-3004

Introduction

American Cement Corporation proposes to modify its Authority to Construct Air Quality Permit No. 902 for the American Cement Facility. An air dispersion model is required to demonstrate ambient Air Quality impact analysis for permit modifications under Albuquerque / Bernalillo County Air Quality Control Board Regulation 20 NMAC 11.41.13.B.4 & 5.

TSP, PM-10, and PM-2.5 emissions from the American Cement Facility have been modeled to determine their effect on ambient air quality. The purpose of this air dispersion model analysis report is to present model results and summarize all information used in the air dispersion model. Included in the report is a description of facility operations, emission source inventory, a summary of the modeling strategy, and model results. A CD has been submitted with the model analysis report which includes an electronic copy of the model files, model results, meteorological data, DEMs, and a copy of the Air Dispersion Model Analysis Report.

The American Cement Facility is approximately four (4) acres in size and is located at 4702 Carlton NW Albuquerque, New Mexico near the corner of Edith Blvd. and Griegos Rd. The UTM Coordinates of the entrance are 350,951 East and 3,888,587 North, Zone 13.

Facility Operations

The facility is currently permitted to unload, store, and load Portland cement and fly ash. Cement and fly ash products are unloaded from trucks and train cars and loaded into storage silos. Cement and flyash are transferred from the silos to trucks for distribution.

Currently cement is pneumatically loaded from train cars and trucks to the cement silo. Train cars are unloaded in a partially enclosed building west of the cement silo using a boot lift rail connector. The connector apparatus is hydraulically lifted to form a seal around the unloading point under the train cars. Negative pressure is used to transfer cement from the train cars to the cement silo. Cement is transferred to silos from trucks just south of the train unloading area. A four (4) inch aluminum pipe is connected to cement trucks and negative pressure is used to move the product into the silo. After the proposed modification this cement silo will be loaded by train only. Cement products are loaded into tanker trucks from a bulk loader spout located beneath the cement silo. All cement transfer points are connected to the cement baghouse negative pressure system.

Fly ash is loaded into the fly ash silo from trucks only. Fly ash is transferred to silos using the same method as cement silo loading. The Fly ash is loaded into tanker trucks from a bulk loader spout located beneath the fly ash silo. All fly ash transfer points are connected to the fly ash baghouse negative pressure system.

American Cement plans to construct three additional silos to facilitate cement storage. The cement silos will be loaded by both train and trucks. The cement silos will be

equipped with a boot lift rail connector and bucket elevator for loading the silos from train cars. The silos will also be pneumatically loaded by trucks on the north and south side of the silos.

A paved haul road facilitates movement of vehicles at the American Cement Facility. The haul road is 1078 feet in length round trip.

After the proposed modification the facility will consist of five (5) units which produce emissions. The equipment list includes five (5) silos and a facility haul road. All equipment at the American Cement Facility is powered by electricity supplied by PNM.

Process Equipment Unit No.	Unit Description
Unit 1	Cement 1 Silo
Unit 2	Cement 2 Silo
Unit 3	Cement 3 Silo
Unit 4	Cement 4 Silo
Unit 5	Flyash Silo
Unit 6	Facility Haul Road

Throughput Capacity

American Cement proposes to operate twenty (20) hours per day, six (6) days per week, and fifty two (52) weeks per year. Hourly throughput of cement at the new silos will be 112.2 tons per hour. The emission rates for the cement silo were calculated using a total process rate of 112.2 tons per hour and an individual silo process rate of 28.05 tons per hour.

Proposed hourly throughput of flyash will be 28.9 tons per hour. The fly ash silo emissions have been calculated using a process rate of 28.9 tons per hour.

Total throughput of cement and fly ash at the American Cement Facility will be 112.2 and 28.9 tons per hour respectively. Six (6) truck trips per hour will be necessary to facilitate proposed product throughput at the American Cement Facility.

Information Used to Determine Emissions

Uncontrolled emission rates for loading and unloading of cement and fly ash have been calculated using AP-42 11.2 (October 2001) calculations. Manufacturer specifications for baghouse filters have been used to determine emission control rates for the baghouse exhaust. Data from Grub Filtration Testing Services, Inc. indicates dust collection efficiency from bags used at the American Cement Facility is greater than 99.8% (See Permit 902 Modification Attachment 3). A 99.5% control has been used in controlled emission calculations

Haul road emissions have been calculated using AP-42 13.2.1 Paved Roads (December 2003). The haul road at the American Cement Facility is completely paved and will be swept as necessary by a wet sweeper truck. A 50% reduction of silt loading (sL) has been used in controlled haul road emissions. The 50% reduction of silt loading on the haul road will be achieved through use of the wet sweeper truck.

A copy of AP-42 Section Sheets has been included in Permit 902 Modification Attachment 1, and all calculations used to determine controlled and uncontrolled emission rates have been included in Attachment 3.

Model Selection

This facility has been modeled with an AERMOD model.

Modeling Approach

Fenceline

All modeled sources originate within the American Cement Facility property fenceline. The following coordinates are the corners of the facility fenceline.

Corner #	East (X)	North (Y)	Corner #	East (X)	North (Y)
Corner 1	350980	3888556	Corner 2	350951	3888587
Corner 3	350927	3888592	Corner 4	350998	3888824
Corner 5	351046	3888805	Corner 6	351074	3888827

Emission Point Parameters

American Cement Facility emissions have been modeled using five (5) point sources and thirty eight (38) volume sources. Emission sources were included in model runs for twenty (20) hours per day Monday through Saturday for 52 weeks.

Cement silos 1-4, and the fly ash silo have each been modeled as a point source. The haul road has been broken into 38 volume sources. The segments have been assigned emission rates proportional to their length.

Process Eqpt. Unit No.	Model I.D.	Emission Rates (lb/hr)		
		TSP	PM-10	PM 2.5
Unit 1	CEMSILO2	0.202	0.129	0.043
Unit 2	NCSILO1	0.202	0.129	0.043
Unit 3	NCSILO2	0.202	0.129	0.043
Unit 4	NCSILO3	0.202	0.129	0.043
Unit 5	FASILO	0.907	0.318	0.105
Unit 6	ROAD1-38	0.898	0.189	0.062

All emission calculations are listed in Permit 902 Modification Attachment 3.

AERMOD Model Input Options

The model was run under the following Parameters:

Averaging Periods- As required by NAAQS and NMAAQS standards

Regulatory Default- Regulatory Default

Con/Dep Option- Concentration

Land Use- Rural

Met Data- Meteorological data was acquired from NMED Air Quality website. The meteorological data set was collected at the Albuquerque Int. Airport in 1997. A copy of the met data file has been submitted on a CD.

Terrain Options- Terrain data was also acquired from NMED Air Quality website. The data is a dem file of Albuquerque and has also been submitted on a CD.

Surrounding Sources

No surrounding sources have been included in this modeling analysis. Cumulative impact analysis is not required in Bernalillo County according conversation with NMEDABQ staff.

Receptor Grid

Receptors have been placed every fifty meters along the American Cement Facility fence-line. Receptors have been placed at every 100 meters out to one kilometer from the American Cement Facility fence line. Additional receptors have been placed every 500 meters out to three kilometers.

Terrain Classification

Simple and complex terrain has been included in modeling. One (1) DEM map of Albuquerque was used to assign elevations to receptors and emission sources. A copy of the DEM has been submitted on the CD accompanying the report.

Background Concentration

Background concentrations have been included in analysis of ambient TSP, PM-10, and PM-2.5. The following background concentration levels have been included in model results:

TSP:	36 ug/m^3 24 hr, 19 ug/m^3 annual
PM-10:	18 ug/m^3 24 hr, 9.5 ug/m^3 annual
PM-2.5:	9 ug/m^3 24 hr, 4.8 ug/m^3 annual

Minor Source Baseline Dates for Increment Consumption

The American Cement Facility is a minor source. One Minor Source Baseline Date has been triggered in New Mexico Air Quality Control Region 155, where the American Cement Facility is located. The minor source baseline date applies to NO_2. The American Cement Facility will not emit NO_2. No increment consumption analysis is proposed for this Air Dispersion Model.

Class I Areas

No PSD Minor Source Baseline Dates for pollutants emitted by the American Cement Facility have been triggered in New Mexico Air Quality Control Region 155. No Class I Facility analysis will be included in the Air Dispersion Model.

PSD Analysis

The American Cement Facility does not emit more than 100 tons per year of any contaminant and is therefore not a major source. PSD analysis is not required for this facility.

Results

Model results include TSP, PM10, and PM-2.5. Background concentrations for Albuquerque, NM are included in the model results. All receptors were within National and New Mexico Ambient Air Quality Standards for all pollutants modeled.

Table of Model Results

Pollutant	Averaging Period	NAAQ (ug/m^3)	NMAAQS (ug/m^3)	Maximum Ambient Concentration	Receptor Location (x)	Receptor Location (y)
TSP	Annual	NA	60	17.62012	351027.00	3888691.50
	24 Hour	NA	150	63.63364	350951.00	3888587.00
PM 10	Annual	50	NA	9.81147	350951.00	3888587.00
	24 Hour	150	NA	40.46928	350951.00	3888587.00
PM-2.5	Annual	NA	15.0	2.52771	350951.00	3888587.00
	24 Hour	NA	65.0	10.31022	350951.00	3888587.00

Attachment 5

Emissions during Normal Operations, Maximum Operations, and Malfunction

Emissions during Normal Operations, Maximum Operations, and Malfunction

This modification has been prepared to demonstrate emissions resulting from maximum operation. All emission rates included in the permit modification and air dispersion model represent emission rates of maximum operation.

Emissions during start up and shutdown are not anticipated to be in excess of normal operating conditions and will be controlled to the plant's best ability.

Malfunctions which trigger excess emissions will result in an immediate shut down of the operation. In these circumstances the plant is not operating, therefore material is not being processed and emission sources are not present. This plant is equipped with baghouse air pollution control devices. If a malfunction results in a baghouse shutdown, American Cement will shutdown the plant to reduce the amount of emissions that could potentially be emitted during this type of malfunction.

Attachment 6

Site Map and Facility Schematic

American Cement Facility

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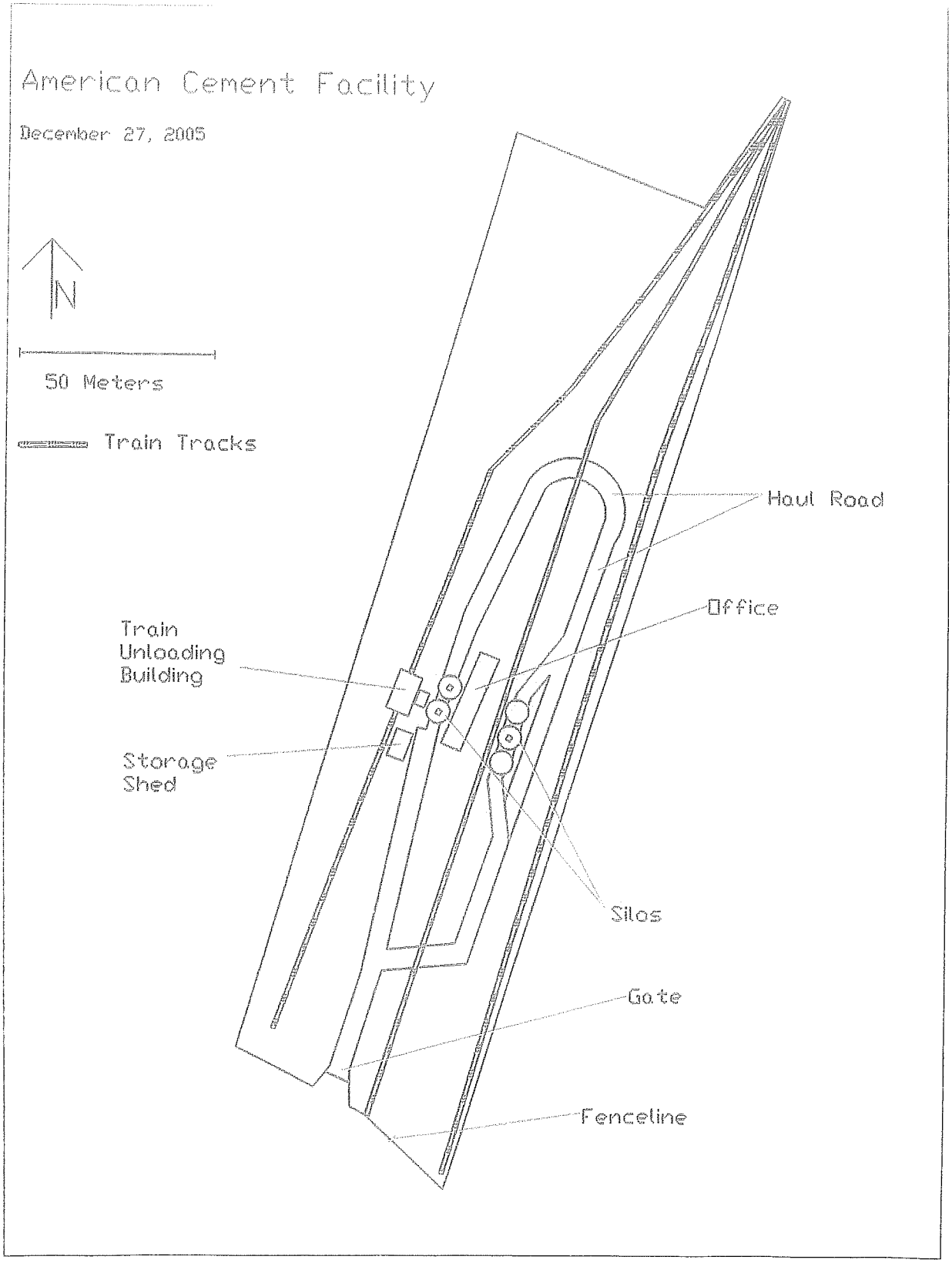
American Cement Facility
December 27, 2005
N
50 Meters
Train Tracks
Haul Road
Office
Train
Unloading
Building
Storage
Shed
Silos
Gate
Fenceline

AmericanCement_PMTEN
**BEE-Line Software: BEEST for Windows (Version 9.51b) data input file

** Model: AERMOD File Creation Date: 2/13/2007 Time: 3:45:30 PM

NO ECHO

BEE-Line AERMOD "BEEST" Version ****

Input File - C:\Documents and Settings\Jonathan Madrid\My Documents\GL Environmental Inc\ac_BEEST\AMERICANCEMENT_PMTEN .DTA
Output File - C:\Documents and Settings\Jonathan Madrid\My Documents\GL Environmental Inc\ac_BEEST\AMERICANCEMENT_PMTEN .LST
Met File - C:\Documents and Settings\Jonathan Madrid\Desktop\Bern_97\ISHD-ABQ_UA-ABQ_BERN-AQB_97.SFC

*** POINT SOURCE DATA ***

STACK SOURCE ID	NUMBER BUILDING PART. CATS.	URBAN EXISTS	EMISSION RATE (GRAMS/SEC) SOURCE SCALAR VARY BY	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)
FASILO	0	0.40055E-01		350986.1	3888693.8	0.0	18.28	0.00	0.00	1.00
		YES	NO SHRDOW							
CEMSILO2	0	0.16257E-01		350983.1	3888685.8	0.0	18.29	0.00	0.00	1.00
		YES	NO							
NCSILO1	0	0.16257E-01		351010.0	3888683.0	0.0	23.07	0.00	0.00	1.00
		YES	NO							
NSILO2	0	0.16257E-01		351000.0	3888702.0	0.0	23.07	0.00	0.00	1.00
		YES	NO							
NSILO3	0	0.16257E-01		351005.0	3888695.0	0.0	23.07	0.00	0.00	1.00
		YES	NO							

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER EMISSION RATE	URBAN SOURCE	EMISSION RATE PART. SCALAR VARY BY	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)
ROAD1	0	NO	0.12822E-02 SHRDOW	350956.2	3888601.8	0.0	2.00	6.05	1.86
ROAD2	0	NO	0.77410E-03 SHRDOW	350959.7	3888610.2	0.0	2.00	6.05	1.86
ROAD31	0	NO	0.22351E-02 SHRDOW	350979.1	3888677.5	0.0	2.00	6.05	1.86
ROAD4	0	NO	0.11284E-02 SHRDOW	350986.0	3888613.0	0.0	2.00	6.05	1.86
ROAD12	0	NO	0.58850E-03 SHRDOW	351008.4	3888675.5	0.0	2.00	6.05	1.86
ROAD19	0	NO	0.44694E-03 SHRDOW	351023.0	3888720.0	0.0	2.00	6.05	1.86
ROAD22	0	NO	0.61470E-03 SHRDOW	351018.7	3888739.2	0.0	2.00	6.05	1.86
ROAD24	0	NO	0.81790E-03 SHRDOW	351002.3	3888736.5	0.0	2.00	6.05	1.86
ROAD30	0	NO	0.64150E-03 SHRDOW	350988.9	3888702.0	0.0	2.00	6.05	1.86
ROAD3	0	NO	0.10990E-02 SHRDOW	350972.8	3888611.0	0.0	2.00	6.05	1.86
ROAD5	0	NO	0.77310E-03 SHRDOW	350989.5	3888621.5	0.0	2.00	6.05	1.86
ROAD6	0	NO	0.72140E-03 SHRDOW	350991.8	3888629.8	0.0	2.00	6.05	1.86
ROAD7	0	NO	0.79240E-03 SHRDOW	350995.7	3888638.8	0.0	2.00	6.05	1.86
ROAD8	0	NO	0.60640E-03 SHRDOW	350997.5	3888644.5	0.0	2.00	6.05	1.86
ROAD9	0	NO	0.68170E-03 SHRDOW	351000.2	3888652.2	0.0	2.00	6.05	1.86
ROAD10	0	NO	0.73150E-03 SHRDOW	351002.7	3888661.2	0.0	2.00	6.05	1.86
ROAD11	0	NO	0.81310E-03 SHRDOW	351005.9	3888669.0	0.0	2.00	6.05	1.86
ROAD13	0	NO	0.56020E-03 SHRDOW	351010.7	3888682.2	0.0	2.00	6.05	1.86
ROAD14	0	NO	0.45537E-03 SHRDOW	351012.3	3888688.2	0.0	2.00	6.05	1.86
ROAD15	0	NO	0.60750E-03 SHRDOW	351014.6	3888695.0	0.0	2.00	6.05	1.86
ROAD16	0	NO	0.58920E-03 SHRDOW	351018.1	3888702.5	0.0	2.00	6.05	1.86
ROAD17	0	NO	0.64860E-03 SHRDOW	351020.7	3888708.5	0.0	2.00	6.05	1.86

ROAD18		0	0.54240E-03	351022.2	3888714.8	0.0	2.00	6.05
1.86	NO	SHRDOW						
ROAD20		0	0.44556E-03	351022.3	3888725.2	0.0	2.00	6.05
1.86	NO	SHRDOW						
ROAD21		0	0.67530E-03	351021.8	3888733.2	0.0	2.00	6.05
1.86	NO	SHRDOW						
ROAD23		0	0.75400E-03	351010.1	3888739.5	0.0	2.00	6.05
1.86	NO	SHRDOW						
ROAD25		0	0.48232E-03	350998.7	3888731.5	0.0	2.00	6.05
1.86	NO	SHRDOW						
ROAD26		0	0.44744E-03	350996.3	3888726.5	0.0	2.00	6.05
1.86	NO	SHRDOW						
ROAD27		0	0.45347E-03	350994.3	3888721.5	0.0	2.00	6.05
1.86	NO	SHRDOW						
ROAD28		0	0.48353E-03	350992.7	3888716.0	0.0	2.00	6.05
1.86	NO	SHRDOW						
ROAD29		0	0.58200E-03	350991.1	3888709.2	0.0	2.00	6.05
1.86	NO	SHRDOW						
ROAD32		0	0.73560E-03	350975.3	3888670.0	0.0	2.00	6.05
1.86	NO	SHRDOW						
ROAD33		0	0.67380E-03	350971.6	3888662.2	0.0	2.00	6.05
1.86	NO	SHRDOW						
ROAD34		0	0.74110E-03	350969.3	3888653.8	0.0	2.00	6.05
1.86	NO	SHRDOW						
ROAD35		0	0.77750E-03	350967.2	3888644.8	0.0	2.00	6.05
1.86	NO	SHRDOW						
ROAD36		0	0.77800E-03	350965.2	3888635.8	0.0	2.00	6.05
1.86	NO	SHRDOW						
ROAD37		0	0.70910E-03	350962.5	3888627.8	0.0	2.00	6.05
1.86	NO	SHRDOW						
ROAD38		0	0.78000E-03	350960.3	3888618.8	0.0	2.00	6.05
1.86	NO	SHRDOW						

**MODELOPTs:

CONC DFAULT ELEV

*** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID SOURCE IDs

ALL ROAD1 , ROAD2 , ROAD31 , ROAD4 , ROAD12 , ROAD19 , ROAD22 ,
ROAD24 , ROAD30 , ROAD3 , ROAD5 , ROAD6 ,

ROAD7 , ROAD8 , ROAD9 , ROAD10 , ROAD11 , ROAD13 , ROAD14 ,
ROAD15 , ROAD16 , ROAD17 , ROAD18 , ROAD20 ,

ROAD21 , ROAD23 , ROAD25 , ROAD26 , ROAD27 , ROAD28 , ROAD29 ,
ROAD32 , ROAD33 , ROAD34 , ROAD35 , ROAD36 ,

ROAD37 , ROAD38 , FASILO , CEMSILO2, NCSILO1 , NSILO2 , NSILO3 ,

*** THE SUMMARY OF MAXIMUM PERIOD (8760 HRS) RESULTS ***

** CONC OF PMTEN IN MICROGRAMS/M**3

**

GROUP ID	NETWORK	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	GRID-ID
ALL	1ST HIGHEST VALUE IS	9.81147 AT (	350951.00, 3888587.00, 0.00, 0.00, 0.00)	DC	
	2ND HIGHEST VALUE IS	9.29436 AT (	351027.00, 3888691.50, 0.00, 0.00, 0.00)	DC	
	3RD HIGHEST VALUE IS	8.85525 AT (	351011.31, 3888646.25, 0.00, 0.00, 0.00)	DC	
	4TH HIGHEST VALUE IS	8.23995 AT (	351042.69, 3888736.75, 0.00, 0.00, 0.00)	DC	
	5TH HIGHEST VALUE IS	8.13129 AT (	350941.19, 3888638.50, 0.00, 0.00, 0.00)	DC	
	6TH HIGHEST VALUE IS	7.04334 AT (	350995.69, 3888601.25, 0.00, 0.00, 0.00)	DC	
	7TH HIGHEST VALUE IS	6.82995 AT (	351050.00, 3888750.00, 0.00, 0.00, 0.00)	DC	
	8TH HIGHEST VALUE IS	6.74326 AT (	350955.41, 3888684.75, 0.00, 0.00, 0.00)	DC	
	9TH HIGHEST VALUE IS	6.68714 AT (	350927.00, 3888592.00, 0.00, 0.00, 0.00)	DC	
	10TH HIGHEST VALUE IS	6.13466 AT (	351050.00, 3888700.00, 0.00, 0.00, 0.00)	DC	

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

*** THE SUMMARY OF HIGHEST 24-HR RESULTS ***

** CONC OF PMTEN IN MICROGRAMS/M**3

**

GROUP ID (XR, YR, ZELEV, ZHILL, ZFLAG) — AVERAGE CONC OF TYPE — (YYMMDDHH) — GRID-ID — RECEPTOR

ALL HIGH 1ST HIGH VALUE IS 40.46928 ON 97120424: AT (350951.00, 3888587.00, 0.00, 0.00, 0.00) DC
HIGH 2ND HIGH VALUE IS 34.38716 ON 97120524: AT (350951.00, 3888587.00, 0.00, 0.00, 0.00) DC

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

♀ *** AERMOD - VERSION 04300 *** *** American Cement 1
*** 02/13/07
*** Train to Cement Silo
*** 15:53:29

**MODELOPTs:

CONC DFAULT ELEV

*** Message Summary : AERMOD Model Execution ***

--------- Summary of Total Messages --------

A Total of 0 Fatal Error Message(s)
A Total of 0 Warning Message(s)
A Total of 127 Informational Message(s)

A Total of 45 Calm Hours Identified

A Total of 82 Missing Hours Identified (0.94 Percent)

******** FATAL ERROR MESSAGES ********
*** NONE ***

******** WARNING MESSAGES ********
*** NONE ***

****
*** AERMOD Finishes Successfully ***
****