

TECHNICAL SUPPORT DOCUMENT

TECHNICAL INFORMATION PRESENTED IN REVIEW OF AN
APPLICATION FOR A PART 70 OPERATING PERMIT

SUBMITTED BY

AGGREGATE INDUSTRIES SWR Inc.

For

AGGREGATE INDUSTRIES – SLOAN QUARRY

Part 70 Operating Permit Number: 372
(Initial Part 70 Operating Permit)
Initial Permit Issued: November 30, 2012
Initial Permit Expiration: November 29, 2017

SIC Code - 1442: Construction Sand and Gravel

SIC Code – 2951: Hot Mix Asphalt

SIC Code – 3272: Ready Mix Concrete



Clark County
Department of Air Quality
Permitting Section

November 2012

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I. EXECUTIVE SUMMARY

Aggregate Industries SWR is a major source for particulate matter equal to or less than 10 microns in aerodynamic diameter (PM₁₀) and a minor source for PM_{2.5}, NO_x, CO, SO_x, VOC, and HAP. Emission of regulated air pollutants at the source results from operations of the mining, blasting, and processing equipment. The Construction Sand and Gravel processes are grouped under SIC 1442 and NAICS 212321. The Hot Mix Asphalt process is under SIC 2951 and NAICS 324121. The Ready Mix Concrete process is under SIC 3727 and NAICS 327390.

Sloan Quarry, owned by Aggregate Industries SWR, is located in Sloan, Nevada, which is in the Las Vegas Valley airshed, hydrographic basin 212. The site is situated in an area that is designated as prevention of significant deterioration (PSD) for CO and SO₂ and nonattainment for ozone (i.e. NO_x and VOC) and PM₁₀. The source is not identified as a major source for greenhouse gases.

The existing facility is situated on a 530-acre site with limestone reserves totaling approximately 600 million tons. The source includes aggregate processing (sand and gravel), concrete batch production, concrete paver production, and asphalt concrete production. The source currently operates multiple crushers, screens, stackers, and transfer belts. Mining, blasting, and hauling also occur in normal operations. An asphalt drum mixer, oil heaters, water heaters, diesel generators, and silos are other emission units associated with the operations at the source.

In November 2003 and May 2004, the source acquired two former owners of the Sloan Quarry, Southern Nevada Paving and Frehner Construction Company, respectively. With the acquisition of Frehner Construction, the cumulative PM₁₀ PTE exceeded the major source threshold of 70 tons per year, triggering Title V. The source submitted a Title V application on April 11, 2005. Several modifications were occurred at the source since then. The source submitted a supplemental Title V application on May 4, 2009, at the request of the DAQ, to incorporate NSR permitting actions processed after the initial Title V application. Additional supplemental applications also received to incorporate new emission units and modifications. The most recent application was submitted on August 25, 2011. A consolidated NSR permit has been issued prior to the issuance of the Title V operating permit.

PM₁₀ emissions are created during the mining, processing, and handling of the aggregate and the production of asphalt and concrete products. Water sprays, baghouses, and binvents along the process lines typically control the PM₁₀ emissions. The fugitive PM₁₀ emissions are based on the amount of aggregate that is mined and processed.

Support activities such as media blasting and gasoline dispensing also occur at the source. The potential emissions for the source are shown in the table below.

Table I-1: Maximum Source PTE (tons per year)

PM _{2.5}	PM ₁₀	NO _x	CO	SO ₂	VOC	HAP
30.77	83.79	47.04	67.16	21.10	12.75	3.34

Clark County Department of Air Quality (DAQ) has been delegated to implement the requirement of the Part 70 operating permit program. Based on information submitted by the applicant and a technical review performed by the DAQ staff, the DAQ proposes the issuance of a Part 70 Operating Permit to Aggregate Industries.

II. ACRONYMS

Table II-1: List of Acronyms

Acronym	Term
AQR	Clark County Air Quality Regulations
ATC	Authority to Construct Certificate or Authority to Construct
ATC/OP	Authority to Construct/Operating Permit
BACT	Best Available Control Technology
Bhp	Brake Horsepower
BCC	Clark County Board of County Commissioners
CAO	Field Corrective Action Order
CARB	California Air Resources Board
CE	Control Efficiency
CEM	Continuous Emissions Monitoring System
CF	Control Factor
CFR	United States Code of Federal Regulations
CO	Carbon Monoxide
CPI	Urban Consumer Price Index
DAQ	Clark County Department of Air Quality
DEM	Digital Elevation Model
EF	Emission Factor
DOM	Date of Manufacture
EPA	United States Environmental Protection Agency
EU	Emission Unit
EVR	Enhanced Vapor Recovery
HAP	Hazardous Air Pollutant
HP	Horse Power
LAER	Lowest Achievable Emission Rate
MMBtu	Millions of British Thermal Units
NAC	Nevada Administrative Code
NEI	Net Emission Increase
NO _x	Nitrogen Oxides
NOV	Notice of Violation
NRS	Nevada Revised Statutes
NSPS	New Source Performance Standards
NSR	New Source Review
OP	Operating Permit
PM ₁₀	Particulate Matter less than 10 microns
ppm	Parts per Million
PSD	Prevention of Significant Deterioration
PTE	Potential to Emit
RAP	Recycled Asphalt
scf	Standard Cubic Feet
SIP	State Implementation Plan
SO _x	Sulfur Oxides
TSD	Technical Support Document
UST	Underground Storage Tank
USGS	United States Geological Survey
UTM	Universal Transverse Mercator
VOC	Volatile Organic Compound

III. SOURCE INFORMATION

A. General

Company Name:	AGGREGATE INDUSTRIES SWR
Source Name:	AGGREGATE INDUSTRIES SLOAN QUARRY
Source Address:	1.5 Miles West of US I-15, Sloan, Nevada 89124
Legal Description:	Las Vegas Valley (LV) Airshed
	Hydrographic Area 220, T16S, R68E, Section 30
Address (Mailing/Billing):	3101 E Craig Road, North Las Vegas, NV 89030
Telephone Number:	(702) 876-5226
FAX Number:	(702) 876-6808
Source SIC:	1442: Construction Sand and Gravel 2951: Hot Mix Asphalt 3272: Ready Mix Concrete
Source NAICS:	212321: Construction Sand and Gravel Mining 32732: Ready Mix Concrete Manufacturing 342121: Asphalt Paving Mixture and Block Manufacturing

B. Description of Process

Non-Metallic Mineral Processing

The process begins with the primary feed system located on top of the mountain. Mined limestone is delivered via end dumps to a gyratory crusher designed to produce a 6"- 8" minus product for secondary processing. The primary circuit conveys material via a stacking conveyor to a surge pile with feeds the secondary plant.

The material is fed out of the surge pile into a grizzle feeder. Oversize is sent to a jaw crusher for size reduction, while undersize drops onto the common underbelt. The material is then sent to the secondary crushing and screening circuit designed to produce a 1.5" minus product. The output from the secondary plant is conveyed to the secondary surge pile via a radial stacker.

A twin tunnel feed system under the secondary surge pile conveys materials to tertiary wash plants and a plant mix crushing and screening circuit designed to produce specialized sand and rock products for used in the production of concrete and asphalt.

Approximately 70% of the production output will be dedicated to washed sand and rock products designed for the ready mix concrete market. The remaining 30% will be dedicated to dry sand and rock products designed for the asphalt market.

An independent type 2 crushing and screening circuit is also used to produce either native aggregate road base or recycled aggregate base (type 2).

An independent rip rap "grizzly" screening circuit is used on the quarry to sort boulders for sale to the construction industry. Various independent screening, loading, and blending circuits have also been added since the source's modification 3.

Baghouses are used extensively throughout the non-metallic mineral processing operation.

Asphalt Concrete Production

Sand and rock which comprises approximately 94% of the mix, are fed into the cold feed system via a front end loader. Material is placed into one of two aggregate bin systems before being conveyed to the drum mixer. The aggregate is heated to specification temperature inside the drum to remove moisture then is mixed with liquid asphalt, which serves as the binding agent. The hot liquid asphalt is discharged into an incline slat conveyor and transported up one of five hot asphalt storage silos. Trucks are loaded from under the hot asphalt silos.

The plant will also use a recycled asphalt (RAP) feed system and a Lime Marinate feed system. For typical plant operation, RAP will account for 15% of the total sand and gravel used. Lime marinated aggregate will be used only for specific state jobs that require its use.

Liquid AC oil is stored in enclosed hot oil tanks. The tank temperature is maintained at approximately 325 degree F vial the use of hot oil heaters. The heaters heat the thermal fluid which is circulated in a closed loop to the jacketed tanks as needed to maintain the set temperature. The AC oil is pumped from the tanks into the drum in measured proportions. AC oil usually comprises 6% of the mix weight.

Emissions from the drum mixer are vented to a central dust collector equipped with a dust reclaim system. All feed materials are maintained with 2.5% minimum moisture content.

Ready Mix Concrete Production

Washed clean sand and rock are fed into a ground hopper(s) via a front end loader. The materials are then conveyed to an overhead 4 compartment bin system and aggregate weigh hopper. Materials drop into the enclosed weigh hopper and then are conveyed to a transit truck loading station vented to a central dust collector.

Cement and fly ash are pneumatically loaded into enclosed storage silos equipped with top mounted filter vents. The materials are augured or gravity fed from the silos into a weigh batcher. The materials are then dispensed to a ready mix truck along with the sand, rock, and water. The concrete is mixed in the transit truck while in route to the job site. The typical mix design is 78% sand and rock, 15% cement and fly ash, and 7% water.

With the exception of remote operations, all plants at the Sloan Quarry operate on commercial power. The remote operations are powered by diesel generators.

C. Permitting History

In November 2003 and May 2004, Aggregate Industries, an existing minor source, acquired two former owners of the Sloan Quarry, Southern Nevada Paving and Frehner Construction Company, respectively. With the acquisition of Frehner Construction, the cumulative PM₁₀ PTE exceeded the major source threshold of 70 tons per year, triggering Title V. Other operations at the Sloan Quarry have also been purchased by Aggregate Industries. In a letter dated February 17, 2005, the DAQ notified Aggregate Industries of being a major source. The letter requested a

Title V application be submitted within six month, August 17, 2005. The source submitted an initial application for Title V operating permit on April 11, 2005. A supplemental Title V application was submitted on May 4, 2009, at the request of the DAQ to incorporate NSR permitting actions processed after the initial Title V application.

Table III-C-1: Permits (ATCs or ATC/OPs) Issued to Aggregate Industries (Source 372)

Date	Permit Number	Description
10/17/2012	N/A	ATC to use AP-42 emission factors for hard rock mining and include PM _{2.5} PTE. This ATC also includes new or modified emission units.
3/8/2011	N/A	ATC to add concrete batching equipment to Process F, including a propane-fired water heater.
01/27/2011	N/A	ATC to modify Wash Plant 1, Process B, and add two auxiliary storage silos.
04/30/2010	NSR Modification 10	ATC to modify Processes C, F, and H, reduce annual feed rates, rebalance the wash plant production, adjust the moisture content in Process F, and remove various emission units.
05/28/2009	NSR Modification 9 Revision 1	Revision to Modification 9 to remove control requirements for diesel engine RS10.
5/11/2009	NSR Modification 9	ATC to add a mobile screening plant and a bin blending system.
12/01/2008	NSR Modification 8	ATC/OP for two temporary diesel generators.
11/25/2008	NSR Modification 7	ATC for a precast mobile mini mixer process and a system to loadout the cyclone sand.
06/25/2008	NSR Modification 6	ATC/OP to add three diesel engines, a propane-fired water heater, five spare conveyors, baghouse control to an existing conveyor, and remove a temporary generator.
11/5/2007	NSR Modification 5	ATC/OP to incorporate a temporary diesel generator; add a cement silo, a hot asphalt storage silo, a jaw crusher, and transfer belts; remove the bagging operation; and adjust production levels.
12/11/2006	NSR Modification 4	ATC/OP to increase throughput in the primary feed, secondary circuits, and asphalt plant, add and reconfigure various conveyor systems, include blasting emissions, and include a new aggregate and cement products process.
11/9/2005	NSR Modification 3 Amendment 1	Amendment to the ATC/OP to include the Casino Ready Mix operation to the permit.
08/17/2005	NSR Modification 3	ATC/OP to add new emission units, increase disturbed surfaces, increase annual production rate, add baghouses, and increase moisture content in some process lines. Southern Nevada Paving (Source 1531), Builder's Concrete Supply (Source 15198), and Silver State Materials (Source 449) were also incorporated into the permit.
02/15/2002	NSR Modification 2	ATC/OP to increase mineral processing; remove diesel generators; and add additional baghouses, a concrete batch plant, rip rap plant, and asphalt plant.
08/2/1995	NSR Modification 1	ATC/OP to increase the annual mineral processing.
02/28/1990	NSR Modification 0	Initial ATC/OP.

Table III-C-2: Permits Issued to Southern Nevada Paving (Source 1531)

Date	Permit Number	Description
02/25/2004	NSR Modification 2	ATC/OP to increase asphalt production.
04/08/2003	NSR Modification 1	ATC/OP to include a portable air separator.
09/23/2002	NSR Modification 0	Initial ATC/OP.

Table III-C-3: Permits Issued to Builder's Concrete Supply (Source 15198)

Date	Permit Number	Description
08/13/2003	NSR Modification 0	Initial ATC/OP.
05/06/2003	NSR Modification 0	Initial ATC.

Table III-C-4: Permits Issued to Silver State Materials (Source 449)

Date	Permit Number	Description
02/23/2005	NSR Modification 1 Revision1	Amendment to the AT/OP to remove a diesel generator.
03/30/2001	NSR Modification 1	ATC/OP to increase concrete production, replace a generator, and add a baghouse.
09/25/1995	Yellow Tickets	Yellow Ticket Operating Permits issued for a cement silo, fly ash silo, aggregate bins, and a diesel generator.
03/10/1995	NSR Modification 0	Agreement to Permit Conditions.
07/26/1994	NSR Modification 0	Initial ATC.

Table III-C-5: Permits Issued to Casino Ready Mix (Source 15355)

Date	Permit Number	Description
08/17/2005	NSR Modification 1	ATC/OP to increase annual production of concrete and increase annual diesel fuel usage.
02/25/2004	NSR Modification 0	Initial ATC/OP.

Prior to the issuance of this OP, the source submitted two additional revision applications that are addressed in this permit. They are the addition of a media blasting unit (EU: MB01) and the addition of two gasoline tanks (EUs: FT01 and FT02). As these revisions are below the significant threshold, they did not require a separate ATC to be issued and are incorporated directly into the Title V permit. The gasoline tanks are not required to be equipped with Phase 1 controls and have not been installed with such control equipment.

The Permittee was also submitted documentation in regards to the diesel engines on-site. The DOM of each engine was submitted and based on this information, the engines are subject to 40

CFR 63 Subpart ZZZZ and not 40 CFR 60 Subpart IIII. This affected two engines: A123 and MM06. Also, it was found that two engines are no longer on site: MM07 and MM09, and these have been removed from the permit.

D. Operating Scenario

The operating scenario for Aggregate Industries is to continue operations as they have been conducted for the past several years and under current ATC permits to produce aggregate products, asphalt, and concrete. Air emissions at the source result from the mining operations and the processing of the aggregate, asphalt, and concrete. Emissions also result from the operation of fuel burning equipment located on site. The emissions can be broken into source categories: point and fugitive source emissions. The point source emissions include emissions from the conveyor belts, baghouses, and other equipment stacks. The fugitive emissions include emissions from the storage piles and haul roads.

E. Proposed Exemptions

There are no insignificant activities as defined by AQR Section 12.5.

IV. EMISSIONS INFORMATION

A. Total Source Potential to Emit

The source potential to emit (PTE) for regulated air pollutants (Table IV-A-1), as presented in the Part 70 Operating Permit application, reflects the permitted emission limits established in the October 17, 2012 ATC, and the removal of two engines the Permittee has removed from the source (EUs: MM07 and MM09).

Table IV-A-1: Source PTE (tons per year)

PM _{2.5}	PM ₁₀	NO _x	CO	SO _x	VOC	HAP	H ₂ S	Pb
30.77	83.79	47.04	67.16	21.10	12.75	3.34	0.00	0.00

B. Control Technology

Aggregate Industries applied for a Title V operating permit to incorporate all authority to construct permits issued to the source. During the NSR analysis for the modifications, Aggregate Industries has identified all source categories that require a LAER or BACT analysis. LAER is required for PM₁₀ emissions while BACT is required for the remaining criteria pollutants.

Aggregate Industries selected a combination of emission controls that provide low emission rates (pounds of PM₁₀ emitted per ton of material processed) comparable to other similar processing operations in Clark County. The source complied with the control technology requirements effective at the time each ATC was issued.

Material Processing

Fugitive emissions are generated when the material is dropped onto or off of the emission units. The amount of fugitive emissions is tied to the amount of material processed through the system. Three potential control technologies associated with these emission units are standard:

enclosures, baghouses/binvents, and increase moisture content in the aggregate. Additionally, Aggregate Industries uses a combination of moisture and baghouses as control options when technically feasible.

The moisture content for the feed systems, screening and crushing plants, asphalt, concrete, and blending systems is estimated to be at a level that will control 90% of the PM₁₀ emissions. At this moisture level, the maximum opacity of 20% will not be exceeded.

The wash plants consist mainly of wet processes. This results in 100% control of PM₁₀ emissions.

The asphalt system is equipped with a high efficiency central dust collector that vents the drum and scalping screening. Silos and the slat conveyor are also equipped with blue smoke controls. The plant mix crushing and screening circuit utilizes baghouse controls on all screens and crusher.

The access road leading to the site is paved which will provide a 98.0% control efficiency, which is LAER for haul roads. Other roads are maintained to meet the 20% opacity standard.

Baghouses are used throughout the systems at various points to control PM₁₀ emissions. The baghouses are listed in Table IV-B-2.

Table IV-B-1: List of Emission Units with Baghouse Control

EU	Description	Baghouse ID
A015	Jaw Crusher CR-1 (Nordberg)	DC1
A016	VGF drop to Belt 4	DC1
A018	Screen S-1 (Simplicity)	DC1
A017	Belt 4 to Screen S-1	DC1
A019	Screen S-1 to Crusher CR-2	DC1
A020	Crusher CR-2 (Hazemag)	DC1
A021	Crusher CR-2 to Belt 6	DC1
A025	Screen S-2 (JCI 8x20)	DC1
A023	Belt 44 to Screen S-2	DC1
A027	Screen S-2 to Belt 46	DC1
A026	Screen S-3 (JCI 8x20)	DC1
A024	Belt 45 to Screen S-3	DC1
A028	Screen S-3 to Belt 47	DC1
A029	Belt 46 to Belt 8	DC1
A030	Belt 47 to Belt 8	DC1
A032	Crusher CR-3 (Canica VSI)	DC1
A031	Belt 8 to Crusher CR-3	DC1
A033	Crusher CR-3 to Belt 6	DC1
A040	Stacker 9 to Surge pile 2	DC1
A042	Belt 10 to Overland Belt 48	LMC West 2 hp model 5x4 VSD6
A043	Overland Belt 48 to Belts 11 and 50	LMC West 2 hp model 5x4 VSD6
B004	Belt 3 to Splitter	DC2
B004a	Splitter to Belt 4	DC2
B006a	Splitter to Belt 5	DC2
B006	Screen 1 (ElJay)	DC2
B008	Screen 2 (ElJay)	DC2

EU	Description	Baghouse ID
B013	Screen 3 (JCI)	DC2
B035	Cone Crusher	DC2
D009	Screen to Conveyor 8	Astec 200 hp (twin) Pulsejet
D014	Drum Mixer	Astec 200 hp (twin) Pulsejet
F014a	Batcher 18 to Truck	Donaldson 10 hp
F031	Transit Truck Loading	Donaldson 10 hp

DC1 – Fabric Filter Air Systems 200 hp Pulsejet SN5316

DC2 – Fabric Filter Systems 125 hp Pulsejet SN 5315

The installation of baghouses and binvents were determined to be LAER or BACT at the time the permits were issued for the processes.

Fuel Burning Equipment

To reduce other criteria pollutants the source has been upgraded to grid power since the original ATC was issued. Diesel generators are still present on site to power remote wells and portable equipment. These diesel generators are equipped with turbochargers and aftercoolers to meet BACT. The Propane-Fired water heater (EU: F023) is equipped with burners rated at 30 ppm NO_x and 100 ppm CO to meet BACT requirements. This unit replaced a diesel-powered water heater and reduced the source's PM₁₀ emissions. The Asphalt Drum Mixer (EU: D014) utilizes an automated air-to-fuel ratio control system to optimize burner performance.

Blasting

Emissions from blasting events are controlled by restricting the area of all blasting events and the amount of blasting agent used. ANFO usage shall not exceed 1,500 tons per year, and the area shall be limited to 1,109,836 square feet per year. The Permittee shall also comply with other operational restrictions listed in the permit during blasting events.

C. Emission Units, Emission Limitations, and PTE

The mined material at Sloan Quarry comes from chemical grade limestone or dolomite, which are recognized as major rock types applicable to the stone processing emission factors.

Table IV-C-1: List of PM_{2.5} and PM₁₀ Emission Factors

Process	Controlled PM _{2.5} EF (lb/ton) ¹	Controlled PM ₁₀ EF (lb/ton) ¹	Source of EF
Mining/Excavation	0.00120 ²	0.008	DAQ Default
Crushing Tertiary	0.00010	0.00054 (moisture control)	AP-42 Section 11.19.2
	0.00036 ²	0.0024 (uncontrolled)	AP-42 Section 11.19.2
Crushing Fines (VSI)	0.000070	0.0012	AP-42 Section 11.19.2
Screening	0.000050	0.00074 (moisture control)	AP-42 Section 11.19.2
	0.0087 ³	0.0087 (uncontrolled)	AP-42 Section 11.19.2
Stacker Point	0.000013	0.000046 (moisture control)	AP-42 Section 11.19.2
		0.00110 (uncontrolled)	AP-42 Section 11.19.2
Transfer Point	0.000013	0.000046	AP-42 Section 11.19.2

Process	Controlled PM _{2.5} EF (lb/ton) ¹	Controlled PM ₁₀ EF (lb/ton) ¹	Source of EF
Haul Roads	1.14 (lbs/VMT) ²	7.57 (lbs/VMT) (uncontrolled)	DAQ Default
Storage Pile	0.249 (lbs/acre-day) ²	1.66 (lbs/acre-day)	DAQ Default
Cement/Lime Silo Loading	0.000051 ²	0.00034	AP-42 Section 11.12
Silo Unloading	0.0024 (BH controlled units) 0.00036 ²	0.0024	AP-42 Section 11.12
Silo Loading	0.0049 (BH controlled units) 0.00074 ²	0.0049	AP-42 Section 11.12
Concrete Batch Truck Loading	0.0263 ³	0.0263	AP-42 Section 11.12
Asphalt Silo Loading	0.00006 ³	0.00006	AP-42 Section 11.1
Asphalt Silo Un-loading	0.0005 ³	0.0005	AP-42 Section 11.1

¹DAQ default emission factors are based on a level of control that will result in the process not exceeding opacity standards under normal operations.

²PM_{2.5} emission factors not listed in AP-42 are estimated at 15% of the PM₁₀ emission factor as suggested by the EPA document “Background Document for Revisions to Fine Fraction Ratios Used for AP-42 Fugitive Dust Emissions Factors” (2/06).

³PM_{2.5} is estimated as the PM₁₀ emissions from these units as they are controlled by a baghouse or binvent.

The following tables summarize the emission limits for each emission unit.

Table IV-C-2: Primary Feed (Mountain Top) Emission Units and PTE for PM_{2.5} and PM₁₀

EU	Description	Process tons/hr	Process tons/yr	Controlled PM _{2.5} EF lbs/ton	Controlled PM ₁₀ EF lbs/ton	PM _{2.5} PTE lbs/hr	PM ₁₀ PTE lbs/hr	PM _{2.5} PTE tons/yr	PM ₁₀ PTE tons/yr
A001a	Blasting (PM ₁₀)	See Tables IV-C-5 and IV-C-6				7.15	47.67	0.64	4.26
A001	Mining	4,200	5.04	33.60	3.00	5.04	33.60	3.00	20.00
A02	Gyratory Crusher (crushing) ¹	2,100	0.21	1.13	0.13	0.21	1.13	0.13	0.68
A02a	Enddump to Gyratory Crusher	4,200	0.05	0.19	0.03	0.05	0.19	0.03	0.12
A02b	Gyr. Crusher to Stacker 3	4,200	0.05	0.19	0.03	0.05	0.19	0.03	0.12
A012	Stacker 3 to Surge pile	4,200	0.05	0.19	0.03	0.05	0.19	0.03	0.12
Subtotals						12.56	82.98	3.86	25.28

¹Approximately 50 percent of the five million ton throughput material is not processed/crushed by the gyratory crusher based on a close side setting of 6.0 inches.

Table IV-C-3: Secondary Aggregate Plant Emission Units and PTE for PM_{2.5} and PM₁₀

EU	Description	Process tons/hr	Process tons/yr	Controlled PM _{2.5} EF lbs/ton	Controlled PM ₁₀ EF lbs/ton	PM _{2.5} PTE lbs/hr	PM ₁₀ PTE lbs/hr	PM _{2.5} PTE tons/yr	PM ₁₀ PTE tons/yr
A013	Tunnel Belt BC-4a 3 to VGF 2a	2,600	5,000,000	0.000013	0.000046	0.03	0.12	0.03	0.12
A015	Jaw Crusher CR-1 (Nordberg) (BH) ¹	650	500,000	0.0024	0.0024	0.40	0.40	0.15	0.15
A014	VGF 2a to Jaw Crusher CR-1	650	500,000						
A016	VGF 2a drop to Belt 4 (BH) ¹	2,600	4,500,000	0.0011	0.0011	0.73	0.73	0.63	0.63
A018	Screen S-1 (Simplicity) (BH) ¹	2,600	5,000,000	0.0087	0.0087	5.74	5.74	5.52	5.52
A017	Belt 4 to Screen S-1 (BH) ¹	2,600	5,000,000						
A020	Crusher CR-2 (Hazemag) (BH) ¹	975	1,875,000	0.0024	0.0024	0.59	0.59	0.57	0.57
A019	Screen S-1 to Crusher CR-2 (BH) ¹	975	1,875,000						
A021	Crusher CR-2 to Belt 6	975	1,875,000						

EU	Description	Process tons/hr	Process tons/yr	Controlled PM _{2.5} EF lbs/ton	Controlled PM ₁₀ EF lbs/ton	PM _{2.5} PTE lbs/hr	PM ₁₀ PTE lbs/hr	PM _{2.5} PTE tons/yr	PM ₁₀ PTE tons/yr
	(BH) ¹								
A036	Screen S-1 Underbelt to Belt 5	1,625	3,125,000	0.000013	0.000046	0.02	0.07	0.02	0.07
A022	Belt 6 Split to Belt 44 and 45	1,365	2,625,000	0.000013	0.000046	0.02	0.06	0.02	0.06
A025	Screen S-2 (JCI 8x20) (BH)	682	1,312,500	0.0087	0.0087	1.51	1.51	1.45	1.45
A023	Belt 44 to Screen S-2 (BH) ¹	682	1,312,500						
A027	Screen S-2 to Belt 46 (BH)	682	1,312,500						
A034	Screen S-2 underbelt to Belt 7	488	937,500	0.000013	0.000046	0.01	0.02	0.01	0.02
A026	Screen S-3 (JCI 8x20) (BH)	682	1,312,500	0.0087	0.0087	1.51	1.51	1.45	1.45
A024	Belt 45 to Screen S-3 (BH) ¹	682	1,312,500						
A028	Screen S-3 to Belt 47 (BH) ¹	682	1,312,500						
A035	Screen S-3 underbelt to Belt 7	488	937,500	0.000013	0.000046	0.01	0.02	0.01	0.02
A029	Belt 46 to Belt 8 (BH) ¹	228	437,500	0.0011	0.0011	0.06	0.06	0.06	0.06
A030	Belt 47 to Belt 8 (BH) ¹	228	437,500	0.0011	0.0011	0.06	0.06	0.06	0.06
A032	Crusher CR-3 (Canica VSI) (BH) ¹	420	875,000	0.0024	0.0024	0.26	0.26	0.27	0.27
A031	Belt 8 to Crusher CR-3 (BH) ¹	420	875,000						
A033	Crusher CR-3 to Belt 6 (BH) ¹	420	875,000						
A037	Belt 5 to Belt 43	1,625	3,125,000	0.000013	0.000046	0.02	0.07	0.02	0.07
A038	Belt 43 to Belt 7 or 62	1,625	3,125,000	0.000013	0.000046	0.02	0.07	0.02	0.07
A038a	Belt 62 to Belt 63	370	500,000	0.000013	0.000046	0.00	0.02	0.00	0.01
A038b	Belt 63 to Stockpile (Reject)	370	500,000	0.000013	0.000046	0.00	0.02	0.00	0.01

EU	Description	Process tons/hr	Process tons/yr	Controlled PM _{2.5} EF lbs/ton	Controlled PM ₁₀ EF lbs/ton	PM _{2.5} PTE lbs/hr	PM ₁₀ PTE lbs/hr	PM _{2.5} PTE tons/yr	PM ₁₀ PTE tons/yr
A038c	Belt 64 at H.S.I. oversize reject (alt ops) ²	975	250,000	0.000013	0.000046	0.01	0.04	0.00	0.01
A038d	Stacker to Stockpile of Truck (alt ops) ²	975	250,000	0.000013	0.000046	0.01	0.04	0.00	0.01
A040	Stacker 9 to Surge pile 2 (BH) ³	2,600	5,000,000	0.0011	0.0011	0.73	0.73	0.70	0.70
A039	Belt 7 to Stacker 9	2,600	5,000,000	0.000013	0.000046	0.03	0.12	0.03	0.12
Subtotals						11.77	12.27	11.02	11.44

¹ BH denotes unit vented to baghouse. Emissions from baghouse points are computed based on 75% capture efficiency and 99.5% control efficiency.

² The emission unit is not included in the table subtotal. It is an alternate process that, if used, will decrease throughput from the remaining emission units.

³ Baghouse on the Stacker has a collection efficiency of 25 percent and 99.5% control efficiency.

Table IV-C-4: Overland Feed System Emission Units and PTE for PM_{2.5} and PM₁₀

EU	Description	Process tons/hr	Process tons/yr	Controlled PM _{2.5} EF lbs/ton	Controlled PM ₁₀ EF lbs/ton	PM _{2.5} PTE lbs/hr	PM ₁₀ PTE lbs/hr	PM _{2.5} PTE tons/yr	PM ₁₀ PTE tons/yr
A041	Belt Feeds 1-3 to Tunnel Belt 10	1,500	3,500,000	0.000013	0.000046	0.02	0.07	0.02	0.08
A042	Belt 10 to Overland Belt 48 (BH) ¹	1,500	3,500,000	0.0011	0.0011	0.42	0.42	0.49	0.49
A043	Overland Belt 48 to Belts 11 and 50 (BH) ₁	1,500	3,500,000	0.0011	0.0011	0.42	0.42	0.49	0.49
A045	Belt 11 Stacker to Surge Pile (WP1)	750	2,250,000	0.000013	0.000046	0.01	0.03	0.01	0.05
A046	Belt 50 to Stacker 51	750	1,250,000	0.000013	0.000046	0.01	0.03	0.01	0.03
A046a	Stacker 51 to WP2 Side Surge Pile	750	1,250,000	0.000013	0.000046	0.01	0.03	0.01	0.03
Subtotals						0.89	1.01	1.03	1.17

¹ BH denotes unit vented to baghouse. Emissions from baghouse points are computed based on 75% capture efficiency and 99.5% control efficiency.

Table IV-C-5: PTE for PM_{2.5} and PM₁₀ Associated with Blasting¹

EU	Description	Area ft ² /hr	Area ft ² /yr	PM _{2.5} PTE lbs/hr	PM ₁₀ PTE lbs/hr	PM _{2.5} PTE tons/yr	PM ₁₀ PTE tons/yr
A001a	Blasting	35,000	1,109,836	7.15	47.67	0.64	4.26

¹Emission values are based on the AP-42 formula for blasting overburden found in Section 11.9-1 dated July 1998: PM₁₀ (lbs/yr) = 0.000014 (A)^{1.5} x 0.52 scaling factor. Where A = area blasted in square feet.

Table IV-C-6: PTE for NO_x and CO Associated with Blasting¹

EU	Description	ANFO Usage		NO _x		CO	
		tons/hr	tons/yr	lbs/hr	tons/yr	lbs/hr	tons/yr
A001a	Blasting	135	1,500	1,069.20	5.94	5,531.00	30.72

¹Emission factors for NO_x = 7.92 pounds per ton and CO = 40.97 pounds per ton based on 1997 National Institute of Safety and Health (NIOSH) contracted study "A Technique for Measuring Toxic Gases Produced by Blasting Agents."

Table IV-C-7: Wash Plant #1 Emission Units and PTE for PM_{2.5} and PM₁₀

EU	Description	Process tons/hr	Process tons/yr	Controlled PM _{2.5} EF lbs/ton	Controlled PM ₁₀ EF lbs/ton	PM _{2.5} PTE lbs/hr	PM ₁₀ PTE lbs/hr	PM _{2.5} PTE tons/yr	PM ₁₀ PTE tons/yr
A080	VGF 3a through 4 to Belt 25	700	2,000,000	0.000013	0.000046	0.01	0.03	0.013	0.046
A081	Belt 25 Tunnel to Belt 74	700	2,000,000	0.000013	0.000046	0.01	0.03	0.013	0.046
A082	Belt 73 (Spare)	700	2,000,000	0.000013	0.000046	0.01	0.03	0.013	0.046
A083	Belt 74 (mod) to Belts 54, 55, and 30 via Surge Bin	700	3,000,000	0.000013	0.000046	0.01	0.03	0.0195	0.069
A084 ¹	Belt 54 to Wet Screen S-5	350	1,000,000	0.00	0.00	0.00	0.00	0.00	0.00
A085 ¹	Belt 55 to Wet Screen S-6	350	1,000,000	0.00	0.00	0.00	0.00	0.00	0.00
A093 ¹	Belt 30 to Wet Screen S-7	50	1,000,000	0.00	0.00	0.00	0.00	0.00	0.00
A093a ¹	Screens 5-7 to BC57	100	500,000	0.00	0.00	0.00	0.00	0.00	0.00
A093b ¹	Screens 5-7 to BC28	150	428,571	0.00	0.00	0.00	0.00	0.00	0.00
A086 ¹	Screens 5-7 to BC56	100	500,000	0.00	0.00	0.00	0.00	0.00	0.00
A102a ¹	Wet Screen S-7	350	1,000,000	0.00	0.00	0.00	0.00	0.00	0.00
A108 ¹	Screen S-7 to 44" Sand Screw	100	285,714	0.00	0.00	0.00	0.00	0.00	0.00
A086 ¹	Belt to Dewater Screen S-9	100	307,692	0.00	0.00	0.00	0.00	0.00	0.00
A101 ¹	DW Screen S-9 to Stacker BC29	100	307,692	0.00	0.00	0.00	0.00	0.00	0.00
A089 ¹	Stacker BC29 to Stockpile 1/4" chips	250	307,692	0.00	0.00	0.00	0.00	0.00	0.00

EU	Description	Process tons/hr	Process tons/yr	Controlled PM _{2.5} EF lbs/ton	Controlled PM ₁₀ EF lbs/ton	PM _{2.5} PTE lbs/hr	PM ₁₀ PTE lbs/hr	PM _{2.5} PTE tons/yr	PM ₁₀ PTE tons/yr
A099 ¹	Belts 56 and 57 to Belt BC31 or Belt 41	200	1,000,000	0.00	0.00	0.00	0.00	0.00	0.00
A091 ¹	Belt 41 to Belt 36	200	1,000,000	0.00	0.00	0.00	0.00	0.00	0.00
A090 ¹	Belt 36 to Surge Bin SB5	200	1,000,000	0.00	0.00	0.00	0.00	0.00	0.00
A075 ¹	Belt 28 to Dewater Screen	150	428,571	0.00	0.00	0.00	0.00	0.00	0.00
A076 ¹	Dewater Screen to BC41	150	428,571	0.00	0.00	0.00	0.00	0.00	0.00
A106 ¹	Canica VSI Crusher 6a	175	500,000	0.0024	0.0024	0.42	0.6	0.42	0.60
A103 ¹	Canica VSI Crusher 7a	175	500,000	0.0024	0.0024	0.42	0.6	0.42	0.60
A107	Belt 59 to Belt 39 (recirc)	350	1,000,000	0.000013	0.000046	0.01	0.02	0.01	0.02
A107a	Belt 39 to Belt 74	350	1,000,000	0.000013	0.000046	0.01	0.02	0.01	0.02
A107b	Aux Sand Refeed (Loader or Stockpile)	125	357,142	0.000013	0.000046	0.01	0.02	0.01	0.02
A103a ¹	Belt 37 to Belt 38	125	357,142	0.000013	0.000046	0.00	0.01	0.01	0.01
A106a ¹	Belt 38 to Splitter	370	1,057,143	0.000013	0.000046	0.00	0.02	0.02	0.02
A096a ¹	Belt 31 to Belt 40	270	771,429	0.00	0.00	0.00	0.00	0.00	0.00
A092 ¹	Belt 40 to Belt 33	270	771,429	0.00	0.00	0.00	0.00	0.00	0.00
A092a ¹	Belt 33 to Twin Shaft Coarse mat. Wash	270	771,429	0.00	0.00	0.00	0.00	0.00	0.00
A092b ¹	3 Deck Screen (wet process)	270	771,429	0.00	0.00	0.00	0.00	0.00	0.00
A092c ¹	Screen to Belt 34	120	342,857	0.00	0.00	0.00	0.00	0.00	0.00
A092d ¹	Screen to Belt 43 (alt)	100	285,714	0.00	0.00	0.00	0.00	0.00	0.00
A092e ¹	Screen to Stacker ST32	100	285,714	0.00	0.00	0.00	0.00	0.00	0.00
A096 ¹	Stacker ST32 to Size Screen #67/#4	100	285,714	0.00	0.00	0.00	0.00	0.00	0.00
A097 ¹	Belt BC34 to Stacker 35	100	285,714	0.00	0.00	0.00	0.00	0.00	0.00
A098 ¹	Stacker 35 to Bin #4	100	285,714	0.00	0.00	0.00	0.00	0.00	0.00
A096b ¹	Belt 43 to Belt 44 (alt)	120	342,857	0.00	0.00	0.00	0.00	0.00	0.00
A096d ¹	Belt 44 to Belt 57 (alt)	120	342,857	0.00	0.00	0.00	0.00	0.00	0.00
A096c ¹	44" Sand Screw (spare)	100	285,714	0.00	0.00	0.00	0.00	0.00	0.00
A109 ¹	Screens 5, 6, and 7 to Twin 54" Screws	270	771,429	0.00	0.00	0.00	0.00	0.00	0.00
A113 ¹	Dewater Screen S10	370	1,057,143	0.00	0.00	0.00	0.00	0.00	0.00

EU	Description	Process tons/hr	Process tons/yr	Controlled PM _{2.5} EF lbs/ton	Controlled PM ₁₀ EF lbs/ton	PM _{2.5} PTE lbs/hr	PM ₁₀ PTE lbs/hr	PM _{2.5} PTE tons/yr	PM ₁₀ PTE tons/yr
A114 ¹	Belt 60 to Belt 61	340	1,046,154	0.00	0.00	0.00	0.00	0.00	0.00
A114a ¹	Belt 61 to Stacker 42	340	1,046,154	0.00	0.00	0.00	0.00	0.00	0.00
A115 ¹	Stacker 42 to Stockpile	340	1,046,154	0.00	0.00	0.00	0.00	0.00	0.00
A110a ¹	Loader to Aux Hopper	400	500,000	0.00	0.00	0.00	0.00	0.00	0.00
A110b ¹	Belt to Stacker	400	500,000	0.00	0.00	0.00	0.00	0.00	0.00
A110d ¹	Stacker to Stockpile	400	500,000	0.00	0.00	0.00	0.00	0.00	0.00
A110c ¹	Belt (spare)	300	400,000	0.00	0.00	0.00	0.00	0.00	0.00
A110e ¹	Stacker (spare)	300	400,000	0.00	0.00	0.00	0.00	0.00	0.00
A110f ¹	Dewater Screen S-12 (Spare)	200	400,000	0.00	0.00	0.00	0.00	0.00	0.00
A110 ¹	Loader to Aux Refeed Hopper	100	168,750	0.000013	0.000046	0.01	0.01	0.01	0.01
A111 ¹	Belt 72 to Belt 74	100	168,750	0.000013	0.000046	0.01	0.01	0.01	0.01
Subtotals						0.07	0.18	0.09	0.25

¹Wet process (no emissions) denotes emission units processing materials with >10% moisture in the ¼" minus materials.

Table IV-C-8: Wash Plant #2 Emission Units and PTE for PM_{2.5} and PM₁₀

EU	Description	Process tons/hr	Process tons/yr	Controlled PM _{2.5} EF lbs/ton	Controlled PM ₁₀ EF lbs/ton	PM _{2.5} PTE lbs/hr	PM ₁₀ PTE lbs/hr	PM _{2.5} PTE tons/yr	PM ₁₀ PTE tons/yr
A048	VGF 1 and 2 to Belt 12	650	1,500,000	0.000013	0.000046	0.01	0.03	0.01	0.03
A049	Belt 12 Tunnel to Belt 13	650	1,500,000	0.000013	0.000046	0.01	0.03	0.01	0.03
A050	Belt 13 to Surge Bin 4	650	1,500,000	0.000013	0.000046	0.01	0.03	0.01	0.03
A051	Belt 22 to Belt 17	400	923,077	0.000013	0.000046	0.01	0.02	0.01	0.02
A053	Belt 20 to Belt 21	400	923,077	0.000013	0.000046	0.01	0.02	0.01	0.02
A055 ¹	Screen S-4 (Simplicity)	400	923,077	0.00	0.00	0.00	0.00	0.00	0.00
A052 ¹	Belt 17 to East Screen S-4	400	923,077	0.00	0.00	0.00	0.00	0.00	0.00
A062 ¹	Screens S-4 and S-8 to Belt 53	400	923,077	0.00	0.00	0.00	0.00	0.00	0.00
A070 ¹	Screens S-4 and S-8 to Belt 18a	400	923,077	0.00	0.00	0.00	0.00	0.00	0.00
A074 ¹	Screens S-4 and S-8 to Screw Washer	400	923,077	0.00	0.00	0.00	0.00	0.00	0.00
A056 ¹	Screen S-8 (Svedala)	400	923,077	0.00	0.00	0.00	0.00	0.00	0.00

EU	Description	Process tons/hr	Process tons/yr	Controlled PM _{2.5} EF lbs/ton	Controlled PM ₁₀ EF lbs/ton	PM _{2.5} PTE lbs/hr	PM ₁₀ PTE lbs/hr	PM _{2.5} PTE tons/yr	PM ₁₀ PTE tons/yr
A054 ¹	Belt 21 to West Screen S-8	400	923,077	0.00	0.00	0.00	0.00	0.00	0.00
A057 ¹	Screens S-4 and S-8 to Belt 14	400	923,077	0.00	0.00	0.00	0.00	0.00	0.00
A059 ¹	Crusher CR-5 (Canica VSI)	150	250,000	0.00	0.00	0.00	0.00	0.00	0.00
A058 ¹	Belt 14 to Crusher CR-5	150	250,000	0.00	0.00	0.00	0.00	0.00	0.00
A060 ¹	Crusher CR-5 to Belt 19 (recirc.)	150	250,000	0.00	0.00	0.00	0.00	0.00	0.00
A061 ¹	Belt 19 to Surge Bin 4 (recirc.)	150	250,000	0.00	0.00	0.00	0.00	0.00	0.00
A063 ¹	Belt 53 to Screen S-11 (6 x 16)	200	461,538	0.00	0.00	0.00	0.00	0.00	0.00
A064 ¹	Screen S-11 to Belt 15	200	461,538	0.00	0.00	0.00	0.00	0.00	0.00
A068 ¹	Screen S-11 to Belt 24	200	461,538	0.00	0.00	0.00	0.00	0.00	0.00
A068a ¹	Screen S-11 to ST5	200	461,538	0.00	0.00	0.00	0.00	0.00	0.00
A068b ¹	Stacker ST-5 to Stockpile (alt)	50	115,385	0.00	0.00	0.00	0.00	0.00	0.00
A065 ¹	Belt 15 to Coarse Material Washer	100	230,769	0.00	0.00	0.00	0.00	0.00	0.00
A066 ¹	Coarse Washer to Stacker 52	100	230,769	0.00	0.00	0.00	0.00	0.00	0.00
A067 ¹	Stacker 52 to Stockpile	100	230,769	0.00	0.00	0.00	0.00	0.00	0.00
A069 ¹	Stacker 24 to Stockpile	100	230,769	0.00	0.00	0.00	0.00	0.00	0.00
A071 ¹	Belt 18a to Belt 18b	200	461,538	0.00	0.00	0.00	0.00	0.00	0.00
A071a	Belt 18b to Belt 18c	200	461,538	0.00	0.00	0.00	0.00	0.00	0.00
A071b ¹	Belt 18c to Stockpile or Feed Hopper	200	461,538	0.00	0.00	0.00	0.00	0.00	0.00
A117 ¹	Loader to Feed Hopper	200	461,538	0.00	0.00	0.00	0.00	0.00	0.00
A120 ¹	Canica VSI Crusher CR-9	200	461,538	0.00	0.00	0.00	0.00	0.00	0.00
A120h ¹	Canica VSI Crusher CR-9a	200	461,538	0.00	0.00	0.00	0.00	0.00	0.00
A120c ¹	Canica VSI Crushers CR-9 and CR-9a to Belt 77	266	613,846	0.00	0.00	0.00	0.00	0.00	0.00
A120d ¹	Belt 72 to Canica VSI Crushers CR-9 and CR-9a	266	613,846	0.00	0.00	0.00	0.00	0.00	0.00
A120a ¹	3 Deck Size Screen	266	613,846	0.00	0.00	0.00	0.00	0.00	0.00
A120e ¹	Belt 73 to Size Screen	266	613,846	0.00	0.00	0.00	0.00	0.00	0.00

EU	Description	Process tons/hr	Process tons/yr	Controlled PM _{2.5} EF lbs/ton	Controlled PM ₁₀ EF lbs/ton	PM _{2.5} PTE lbs/hr	PM ₁₀ PTE lbs/hr	PM _{2.5} PTE tons/yr	PM ₁₀ PTE tons/yr
A120f ¹	Size Screen to Ubelt and Belt 79	266	613,846	0.00	0.00	0.00	0.00	0.00	0.00
A120b ¹	Belt 79 to Belt 80	66	152,308	0.00	0.00	0.00	0.00	0.00	0.00
A120g	Belt 80 recirc to Belt 72	66	152,308	0.00	0.00	0.00	0.00	0.00	0.00
A121 ¹	Dewatering Screen	260	576,923	0.00	0.00	0.00	0.00	0.00	0.00
A121a ¹	Belt 77 to Dewatering Screen	260	576,923	0.00	0.00	0.00	0.00	0.00	0.00
A121b ¹	Dewatering Screen to Belt 73	260	576,923	0.00	0.00	0.00	0.00	0.00	0.00
A122a ¹	Ubelt to Stacker 78 or Belt 74 (alt feed)	200	461,538	0.00	0.00	0.00	0.00	0.00	0.00
A122 ¹	Stacker 78 to Stockpile	200	461,538	0.00	0.00	0.00	0.00	0.00	0.00
A122b ¹	Belt 74 to Belt 81	200	461,538	0.00	0.00	0.00	0.00	0.00	0.00
A122c ¹	Belt 81 to Belt 82	200	461,538	0.00	0.00	0.00	0.00	0.00	0.00
A122d ¹	Belt 82 to Belt BC12	200	461,538	0.00	0.00	0.00	0.00	0.00	0.00
A075 ¹	Screw to Dewatering Screen	260	576,923	0.00	0.00	0.00	0.00	0.00	0.00
A077 ¹	Belt 65 to Stacker 66	260	576,923	0.00	0.00	0.00	0.00	0.00	0.00
A078 ¹	Stacker 66 to Stockpile	260	576,923	0.00	0.00	0.00	0.00	0.00	0.00
Subtotals						0.04	0.13	0.04	0.15

¹Wet process (no emissions) denotes emission units processing materials with >10% moisture in the ¼" minus materials.

Table IV-C-9: Wash Plant #2 Alternate Canica VSI Circuit Emission Units and PTE for PM_{2.5} and PM₁₀

EU	Description	Process tons/hr	Process tons/yr	Controlled PM _{2.5} EF lbs/ton	Controlled PM ₁₀ EF lbs/ton	PM _{2.5} PTE lbs/hr	PM ₁₀ PTE lbs/hr	PM _{2.5} PTE tons/yr	PM ₁₀ PTE tons/yr
A117	Loader to Feeder	200	200,000	0.000013	0.000046	0.01	0.01	0.01	0.01
A120	Canica VSI Crusher CR-9	100	100,000	0.00007	0.0012	0.01	0.12	0.01	0.06
A120h	Canica VSI Crusher CR-9a	100	100,000	0.00007	0.0012	0.01	0.12	0.01	0.06
A120c	Canica VSI Crusher CR-9 to Belt 77	200	200,000						
A120d	Belt 72 to Canica VSI Crushers CR-9 and CR-9a	200	200,000						
A120a	3 Deck Size Screen	200	200,000	0.00005	0.00074	0.01	0.15	0.01	0.07
A120e	Belt 73 to 3 Deck Size Screen	200	200,000						

EU	Description	Process tons/hr	Process tons/yr	Controlled PM _{2.5} EF lbs/ton	Controlled PM ₁₀ EF lbs/ton	PM _{2.5} PTE lbs/hr	PM ₁₀ PTE lbs/hr	PM _{2.5} PTE tons/yr	PM ₁₀ PTE tons/yr
A120f	3 Deck Size Screen to Ubelt & Belt 79	200	200,000						
A117	Loader to Feeder	200	200,000	0.000013	0.000046	0.01	0.01	0.01	0.01
Subtotals						0.03	0.40	0.03	0.20

Table IV-C-10: Wash Plant #2 Alternate Dewatering Screen Circuit Emission Units and PTE for PM_{2.5} and PM₁₀

EU	Description	Process tons/hr	Process tons/yr	Controlled PM _{2.5} EF lbs/ton	Controlled PM ₁₀ EF lbs/ton	PM _{2.5} PTE lbs/hr	PM ₁₀ PTE lbs/hr	PM _{2.5} PTE tons/yr	PM ₁₀ PTE tons/yr
A120b	Belt 79 to Belt 80	66	66,000	0.000013	0.000046	0.01	0.01	0.01	0.01
A120g	Belt 80 to Belt 72	200	200,000	0.000013	0.000046	0.01	0.01	0.01	0.01
A121	Dewatering Screen	266	266,000	0.00005	0.00074	0.01	0.20	0.01	0.10
A121a	Belt 77 to Dewater Screen	266	266,000						
A121b	Dewatering Screen to Belt 73	266	266,000						
A122a	Ubelt to Stacker 78 or Belt 74 (alt feed)	200	200,000	0.000013	0.000046	0.01	0.01	0.01	0.01
A122	Stacker 78 to Stockpile	200	200,000	0.000013	0.000046	0.01	0.01	0.01	0.01
A122b	Belt 74 to Belt 81	200	200,000	0.000013	0.000046	0.01	0.01	0.01	0.01
A122c	Belt 81 to Belt 82	200	200,000	0.000013	0.000046	0.01	0.01	0.01	0.01
A122d	Belt 82 to Belt BC12	200	200,000	0.000013	0.000046	0.01	0.01	0.01	0.01
A124	Belt (Spare)	200	200,000	0.000013	0.000046	0.01	0.01	0.01	0.01
Subtotals						0.09	0.28	0.09	0.18

Table IV-C-11: Rip Rap/Miscellaneous Screening System Plant Emission Units and PTE for PM_{2.5} and PM₁₀

EU	Description	Process tons/hr	Process tons/yr	Controlled PM _{2.5} EF lbs/ton	Controlled PM ₁₀ EF lbs/ton	PM _{2.5} PTE lbs/hr	PM ₁₀ PTE lbs/hr	PM _{2.5} PTE tons/yr	PM ₁₀ PTE tons/yr
H05c	Loader to Feeder	500	150,000	0.000013	0.000046	0.01	0.02	0.01	0.01
H08	Trommel Screen Hurcules HT182	500	150,000	0.00005	0.00074	0.03	0.37	0.01	0.06
H02	Oversize Reject #1 - #4	250	150,000	0.000013	0.000046	0.01	0.01	0.01	0.01

EU	Description	Process tons/hr	Process tons/yr	Controlled PM _{2.5} EF lbs/ton	Controlled PM ₁₀ EF lbs/ton	PM _{2.5} PTE lbs/hr	PM ₁₀ PTE lbs/hr	PM _{2.5} PTE tons/yr	PM ₁₀ PTE tons/yr
H02a	Grizzly Screen (Loader or Conveyor Feed)	250	75,000	0.00005	0.00074	0.01	0.19	0.01	0.03
H09	Belt R1 to Belt R2	250	75,000	0.000013	0.000046	0.01	0.01	0.01	0.01
H10	Reject Stacker	125	32,500	0.000013	0.000046	0.01	0.01	0.01	0.01
H05	Fines Transfer Belt	50	32,500	0.000013	0.000046	0.01	0.01	0.01	0.01
H05a	Fines Reject Stacker	50	32,500	0.000013	0.000046	0.01	0.01	0.01	0.01
Subtotals						0.10	0.61	0.08	0.14

Table IV-C-12: West Screen Plant Emission Units and PTE for PM_{2.5} and PM₁₀

EU	Description	Process tons/hr	Process tons/yr	Controlled PM _{2.5} EF lbs/ton	Controlled PM ₁₀ EF lbs/ton	PM _{2.5} PTE lbs/hr	PM ₁₀ PTE lbs/hr	PM _{2.5} PTE tons/yr	PM ₁₀ PTE tons/yr
B001	Stockpile to Belt 1	550	1,500,000	0.000013	0.000046	0.01	0.03	0.01	0.03
B002	Belt 1 to Belt 3	550	1,500,000	0.000013	0.000046	0.01	0.03	0.01	0.03
B004	Belt 3 to Splitter (BH) ¹	550	1,500,000	0.0011	0.0011	0.15	0.15	0.21	0.21
B004a	Splitter to Belt 4 (BH) ²¹	220	600,000	0.0011	0.0011	0.06	0.06	0.08	0.08
B006a	Splitter to Belt 5 (BH) ¹	220	600,000	0.0011	0.0011	0.06	0.06	0.08	0.08
B003a	Reject Stacker (alt ops) ²	550	400,000	0.000013	0.000046	0.01	0.03	0.01	0.01
B006	Screen 1 ElJay (BH) ¹	220	600,000	0.0087	0.0087	0.49	0.49	0.66	0.66
B005	Belt 4 to Screen 1	220	600,000						
B022	Screen 1 to Belt 18	220	600,000						
B008	Screen 2 ElJay (BH) ¹	220	600,000	0.0087	0.0087	0.49	0.49	0.66	0.66
B007	Belt 5 to Screen 2	220	600,000						
B024	Screen 2 to Belt 19	220	600,000						
B012a	Splitter to Belt 7	220	600,000	0.000013	0.000046	0.01	0.01	0.01	0.01
B013	Screen 3 (JCI) (BH) ¹	220	600,000	0.0087	0.0087	0.49	0.49	0.66	0.66
B012	Belt 7 to Screen 3	220	600,000						
B013	Screens to Belt 10	220	600,000						
B028	Screen 3 to Belt 15	220	600,000						
B028a	Screens to Belt 17	220	600,000						
B039	Screen 3 to Belt 8	220	600,000						

EU	Description	Process tons/hr	Process tons/yr	Controlled PM _{2.5} EF lbs/ton	Controlled PM ₁₀ EF lbs/ton	PM _{2.5} PTE lbs/hr	PM ₁₀ PTE lbs/hr	PM _{2.5} PTE tons/yr	PM ₁₀ PTE tons/yr
B018	Screens to Belt 20	220	600,000						
B033	Belt 20 (rev) to Belt 11 or Belt 15	110	300,000	0.000013	0.000046	0.01	0.01	0.01	0.01
B029	Belt 14 to Belt 10 or Belt 16	110	300,000	0.000013	0.000046	0.01	0.01	0.01	0.01
B033	Belt 10 to Belt 11	110	300,000	0.000013	0.000046	0.01	0.01	0.01	0.01
B037	Belt 12 to Belt 9	110	300,000	0.000013	0.000046	0.01	0.01	0.01	0.01
B041	Belt 9 to Splitter (recirc)	110	300,000	0.000013	0.000046	0.01	0.01	0.01	0.01
B035	Cone Crusher (BH) ¹	110	300,000	0.0024	0.0024	0.07	0.07	0.09	0.09
B034	Belt 11 to Cone Crusher	110	300,000						
B036	Cone Crusher to Belt 12	110	300,000						
B043	Wet Screen ³	110	300,000	0.00	0.00	0.00	0.00	0.00	0.00
B003	Belt 2 to Wet Screen	110	300,000	0.000013	0.000046	0.01	0.01	0.01	0.01
B016	Belt 16 to Stacker 2	110	300,000	0.000013	0.000046	0.01	0.01	0.01	0.01
B017	Stacker 2 to Stockpile	110	300,000	0.000013	0.000046	0.01	0.01	0.01	0.01
B020	Belt 15 to Stacker 4	140	381,818	0.000013	0.000046	0.01	0.01	0.01	0.01
B027	Stacker 4 to Stockpile	140	381,818	0.000013	0.000046	0.01	0.01	0.01	0.01
B051	Belt 17 to Belt 2	140	381,818	0.000013	0.000046	0.01	0.01	0.01	0.01
B052	Wash Screw to Stacker 3 ³	140	381,818	0.00	0.00	0.00	0.00	0.00	0.00
B053	Stacker 3 to Stockpile 3/8	140	381,818	0.000013	0.000046	0.01	0.01	0.01	0.01
B038	Belt 18 to Belt 13	53.3	145,364	0.000013	0.000046	0.01	0.01	0.01	0.01
B026	Belt 19 to Belt 13	53.3	145,364	0.000013	0.000046	0.01	0.01	0.01	0.01
B040	Belt 8 to Belt 13	53.3	145,364	0.000013	0.000046	0.01	0.01	0.01	0.01
B053	Belt 13 to Belt 13a	160	436,364	0.000013	0.000046	0.01	0.01	0.01	0.01
B054	Belt 13a to Washer or Stacker 1	160	436,364	0.000013	0.000046	0.01	0.01	0.01	0.01
B031	Stacker 1 to Stockpile or alt feed	160	436,364	0.000013	0.000046	0.01	0.01	0.01	0.01
B055	Overland Belt Conveyor Transfer to Belt (to BC10 Tert. feed)	160	436,364	0.000013	0.000046	0.01	0.01	0.01	0.01
B047	7 x 20 Dewater Screen (spare) ³	400	1,500,000	0.00	0.00	0.00	0.00	0.00	0.00

EU	Description	Process tons/hr	Process tons/yr	Controlled PM _{2.5} EF lbs/ton	Controlled PM ₁₀ EF lbs/ton	PM _{2.5} PTE lbs/hr	PM ₁₀ PTE lbs/hr	PM _{2.5} PTE tons/yr	PM ₁₀ PTE tons/yr
B011	Belt 6 (spare)	270	736,364	0.000013	0.000046	0.01	0.01	0.01	0.02
B045	Stacking Conveyor (spare)	400	600,000	0.000013	0.000046	0.01	0.02	0.01	0.01
B046	Belt Conveyor Transfer to Belt (spare)	160	436,364	0.000013	0.000046	0.01	0.01	0.01	0.01
B049	Stacking Conveyor (spare wet process) ³	400	600,000	0.00	0.00	0.00	0.00	0.00	0.00
B050	Stacking Conveyor (spare wet process) ³	400	600,000	0.00	0.00	0.00	0.00	0.00	0.00
B046a	Loader to Aux Refeed Hopper w/Feeder (alt) ²	100	100,000	0.000013	0.000046	(0.01)	(0.01)	(0.01)	(0.01)
B056	Belt to Belt 9 (alt) ²	100	100,000	0.000013	0.000046	(0.01)	(0.01)	(0.01)	(0.01)
Subtotals						2.06	2.12	2.72	2.78

¹BH denotes unit vented to baghouse. Emissions from baghouse points are computed based on 75% capture efficiency and 99.5% control efficiency.

²The emission unit is not included in the table subtotal. It is an alternate process that, if used, will decrease throughput from the remaining emission units.

³Wet process (no emissions) denotes emission units processing materials with >10% moisture in the ¼" minus materials.

Table IV-C-13: Type 2 Plant (Virgin and Recycle) Emission Units and PTE for PM_{2.5} and PM₁₀

EU	Description	Process tons/hr	Process tons/yr	Controlled PM _{2.5} EF lbs/ton	Controlled PM ₁₀ EF lbs/ton	PM _{2.5} PTE lbs/hr	PM ₁₀ PTE lbs/hr	PM _{2.5} PTE tons/yr	PM ₁₀ PTE tons/yr
C001a	Mining ¹	400	500,000	0.0012	0.008	0.48	3.20	0.30	2.00
A012b	Jaw Crusher CR-10	200	250,000	0.001	0.00054	0.20	0.11	0.13	0.07
A012d	VGF2 to Belt 70	200	250,000	0.000013	0.000046	0.01	0.01	0.01	0.01
A012e	Belt 70 to Belt 2a Overland	400	500,000	0.000013	0.000046	0.01	0.02	0.01	0.01
A010	Belt 2a to VGF Feeder or SP	400	500,000	0.000013	0.000046	0.01	0.02	0.01	0.01
A10a	Loader to VGF Feeder	400	500,000	0.000013	0.000046	0.01	0.02	0.01	0.01
C001	Loader to VGF	400	700,000	0.000013	0.000046	0.01	0.02	0.01	0.02
C003	VGF to Belt 3	400	700,000	0.000013	0.000046	0.01	0.02	0.01	0.02
C004	Belt 3 to Belt 4	400	700,000	0.000013	0.000046	0.01	0.02	0.01	0.02
C002	Jaw Crusher	400	700,000	0.0001	0.00054	0.04	0.22	0.04	0.19
C002b	VGF to Jaw Crusher	400	700,000						

EU	Description	Process tons/hr	Process tons/yr	Controlled PM _{2.5} EF lbs/ton	Controlled PM ₁₀ EF lbs/ton	PM _{2.5} PTE lbs/hr	PM ₁₀ PTE lbs/hr	PM _{2.5} PTE tons/yr	PM ₁₀ PTE tons/yr
C002a	Jaw Crusher CR-10 to BC70	400	700,000						
C002c	Jaw Crusher to Belt 3	400	700,000						
C005a	Screen 3 Cedar Rapids	400	700,000	0.00005	0.00074	0.02	0.30	0.02	0.26
C005b	Belt 4 to Screen 3	400	700,000						
C005c	Screen 3 to Stacker 22 (alt) ²	400	700,000						
C005d	Screen 3 to Stacker 15 (alt) ²	400	700,000						
C005e	Screen 3 to Underbelt	400	700,000						
C005f	Screen 3 to Belt 5	400	700,000						
C003b	Stacker 22 to Stockpile (alt) ²	200	350,000	0.000013	0.000046	0.01	0.01	0.01	0.01
C010b	Stacker 15 to Stockpile (alt) ²	150	262,500	0.000013	0.000046	0.01	0.01	0.01	0.01
C031	S3 Underbelt to Stacker	50	87,500	0.000013	0.000046	0.01	0.01	0.01	0.01
C036	Stacker to Stockpile	50	87,500	0.000013	0.000046	0.01	0.01	0.01	0.01
C006	Belt 5 to Belt 6 & 7 (splitter)	350	612,500	0.000013	0.000046	0.01	0.02	0.01	0.01
C008	Screen 1 Cedar Rapids	275	481,250	0.00005	0.00074	0.01	0.20	0.01	0.18
C007	Belt 6 to Screen 1	275	481,250						
C016	Screen 1 to Belt 14	275	481,250						
C009	Screen 2 Cedar Rapids	350	612,500	0.00005	0.00074	0.02	0.26	0.02	0.23
C008a	Belt 7 to Screen 2	350	612,500						
C009a	Screen1 & 2 to Belt 8	350	612,500						
C025	Screen 2 to Belt 21	350	612,500						
C012	Horz. Shaft Impact Crusher	200	350,000	0.0001	0.00054	0.02	0.11	0.02	0.09
C012b	Belt 8 to H.S.I. Crusher	200	350,000						
C012a	H.S.I. to Belt 11	200	350,000						
C013	Belt 11 to Belt 12	200	350,000	0.000013	0.000046	0.01	0.01	0.01	0.01
C013a	Belt 12 to Belt 6&7 (splitter)	200	350,000	0.000013	0.000046	0.01	0.01	0.01	0.01
C017	Belt 14 to Belt 18a	50	87,500	0.000013	0.000046	0.01	0.01	0.01	0.01
C022	Belt 18a to Stacker 17	50	87,500	0.000013	0.000046	0.01	0.01	0.01	0.01

EU	Description	Process tons/hr	Process tons/yr	Controlled PM _{2.5} EF lbs/ton	Controlled PM ₁₀ EF lbs/ton	PM _{2.5} PTE lbs/hr	PM ₁₀ PTE lbs/hr	PM _{2.5} PTE tons/yr	PM ₁₀ PTE tons/yr
C020	Stacker 17 to Stockpile	50	87,500	0.000013	0.000046	0.01	0.01	0.01	0.01
C026	Belt 21 to Belt 20	350	612,500	0.000013	0.000046	0.01	0.02	0.01	0.01
C027	Belt 20 to Belt 16	350	612,500	0.000013	0.000046	0.01	0.02	0.01	0.01
C019	Belt 16 to Stacker	350	612,500	0.000013	0.000046	0.01	0.02	0.01	0.01
C028	Stacker to Stockpile T2	350	612,500	0.000013	0.000046	0.01	0.02	0.01	0.01
C033	Stacker 18 (alt) ²	50	87,500	0.000013	0.000046	0.01	0.01	0.01	0.01
C034	Stacker 19 (alt) ²	50	87,500	0.000013	0.000046	0.01	0.01	0.01	0.01
C011	Belt 9 Spare	200	350,000	0.000013	0.000046	0.01	0.01	0.01	0.01
C035	Belt 19 Spare	200	350,000	0.000013	0.000046	0.01	0.01	0.01	0.01
Subtotals						1.04	4.72	0.77	3.31

¹Mining EF based on two conveyor drop points (controlled).

²The emission unit is not included in the table subtotals. It is an alternate process that, if used, will decrease throughput from the remaining emission units.

Table IV-C-14: Asphalt System Emission Units and PTE for PM_{2.5} and PM₁₀

EU	Description	Process tons/hr	Process tons/yr	Controlled PM _{2.5} EF lbs/ton	Controlled PM ₁₀ EF lbs/ton	PM _{2.5} PTE lbs/hr	PM ₁₀ PTE lbs/hr	PM _{2.5} PTE tons/yr	PM ₁₀ PTE tons/yr
D001	Loader to Hoppers (10 ea.)	360	527,340	0.000013	0.000046	0.01	0.02	0.01	0.01
D011	Loader to 2 RAP Hoppers	64	93,060	0.000013	0.000046	0.01	0.01	0.01	0.01
D002-6d	Belt Feeders 1 – 6d (10 ea)	360	527,340	0.000013	0.000046	0.01	0.02	0.01	0.01
D007	Conveyor 5e to Conveyor 6	360	527,340	0.000013	0.000046	0.01	0.02	0.01	0.01
D009	Screen to Conveyor 8 (BH) ¹	360	527,340	0.0011	0.0011	0.10	0.10	0.07	0.07
D008	Conveyor 6 to Scalping Screen	360	527,340	0.000013	0.000046	0.01	0.02	0.01	0.01
D012	Belts 9 and 10 to Conveyor 11	64	93,060	0.000013	0.000046	0.01	0.01	0.01	0.01
D029	Conveyor 11a to Conv. 11	64	93,060	0.000013	0.000046	0.01	0.01	0.01	0.01
D014	Aztec Drum Mixer (BH) ¹	450	660,000	See Table IV-A-15	See Table IV-A-15	2.21	2.21	1.62	1.62
D010	Conveyor 8 to Drum Mixer	360	527,340	0.000013	0.000046	0.01	0.02	0.01	0.01
D013	Conveyor 11 to Drum Mixer	64	93,060	0.000013	0.000046	0.01	0.01	0.01	0.01
D015	Mixer to Drag Slat Conveyor	450	660,000	Enclosed	Enclosed	0.00	0.00	0.00	0.00

EU	Description	Process tons/hr	Process tons/yr	Controlled PM _{2.5} EF lbs/ton	Controlled PM ₁₀ EF lbs/ton	PM _{2.5} PTE lbs/hr	PM ₁₀ PTE lbs/hr	PM _{2.5} PTE tons/yr	PM ₁₀ PTE tons/yr
D016	Asphalt Silo 1 Loading	450	110,000	0.00006	0.00006	0.03	0.03	0.01	0.01
D019e	Asphalt Silo 1 Un-Loading	450	110,000	0.0005	0.0005	0.23	0.23	0.03	0.03
D017	Asphalt Silo 2 Loading	450	110,000	0.00006	0.00006	0.03	0.03	0.01	0.01
D019e	Asphalt Silo 2 Un-Loading	450	110,000	0.0005	0.0005	0.23	0.23	0.03	0.03
D019a	Asphalt Silo 3 Loading	450	110,000	0.00006	0.00006	0.03	0.03	0.01	0.01
D019f	Asphalt Silo 3 Un-Loading	450	110,000	0.0005	0.0005	0.23	0.23	0.03	0.03
D019b	Asphalt Silo 4 Loading	450	110,000	0.00006	0.00006	0.03	0.03	0.01	0.01
D019g	Asphalt Silo 4 Un-Loading	450	110,000	0.0005	0.0005	0.23	0.23	0.03	0.03
D019c	Asphalt Silo 5 Loading	450	110,000	0.00006	0.00006	0.03	0.03	0.01	0.01
D019h	Asphalt Silo 5 Un-Loading	450	110,000	0.0005	0.0005	0.23	0.23	0.03	0.03
D019i	Asphalt Silo 6 Loading	450	110,000	0.00006	0.00006	0.03	0.03	0.01	0.01
D019j	Asphalt Silo 6 Un-Loading	450	110,000	0.0005	0.0005	0.23	0.23	0.03	0.03
D020	Baghouse to Screw Conveyor	1	250	Enclosed	Enclosed	0.00	0.00	0.00	0.00
D021	Screw Conveyor to Storage	1	250	Enclosed	Enclosed	0.00	0.00	0.00	0.00
D022	Silo to Conveyor 22	1	250	Enclosed	Enclosed	0.00	0.00	0.00	0.00
D023	Screw Conveyor 1 to Conveyor 2	1	250	Enclosed	Enclosed	0.00	0.00	0.00	0.00
D024	Screw Conveyor 21 to 22	1	250	Enclosed	Enclosed	0.00	0.00	0.00	0.00
D025	Asphalt Hauling (0.95 miles RT)	See Table IV-C-23							
D026	Diesel Hot Oil Heater 16	See Table IV-C-16				0.01	0.01	0.05	0.05
D027	Diesel Hot Oil Heater 17	See Table IV-C-16				0.02	0.02	0.08	0.08
D028	Diesel Hot Oil Heater 17a	See Table 18				0.01	0.01	0.05	0.05
Subtotals						3.95	3.99	2.19	2.19

¹BH denotes unit vented to baghouse. Emissions from baghouse points are computed based on 75% capture efficiency and 99.5% control efficiency.

Table IV-C-15: PTE for Asphalt Drum Mixer¹

EU D014	PM _{2.5} /PM ₁₀		NO _x		CO		SO _x		VOC		HAP	
	lbs/hr	tons/yr	lbs/hr	tons/yr	lbs/hr	tons/yr	lbs/hr	tons/yr	lbs/hr	tons/yr	lbs/hr	tons/yr
Diesel	2.21	1.62	26.1	19.14	45	33.00	26.1	19.14	14.4	10.56	3.92	2.87
LPG Firing	2.21	1.62	26.1	12.87	45	33.00	1.67	1.22	14.4	10.56	3.42	2.51
EU PTE	2.21	1.62	26.1	19.14	45	33.00	26.1	19.14	14.4	10.56	3.92	2.87

¹Emission values based on maximum throughput of 450 tons per hour and 660,000 tons per year. The PTE is established using the fuel that results in the highest PTE (Fuel oil). Emission Factor (lbs/ton) for PM = 0.0049 is based on performance test data with plus a 25% margin. Emission Factors (lbs/ton) for NOx = 0.058, CO = 0.10 are based on AP42 11.1-7 adjusted to reflect burner control system. Emission Factor (lbs/ton) for SOx is based on AP42 11.1-7 assuming combustion of on specification fuel oil. Emission factors (lbs/ton) for VOC = 0.032, and HAPs = 0.0076, based on AP42 11.1-7, 11.1-8, 11.1-9, and 1.5-1. Emission factor for SO_x (lbs/ton) = 0.0037, based on SBAPCD sulfur content table converted to lbs/ton (0.017 lb per MMBtu / 0.22 MMBtu per ton).

Table IV-C-16: PTE for Asphalt Hot Oil Heaters¹

EU	PM _{2.5} /PM ₁₀		NO _x		CO		SO _x		VOC		HAP	
	lbs/hr	tons/yr	lbs/hr	tons/yr	lbs/hr	tons/yr	lbs/hr	tons/yr	lbs/hr	tons/yr	lbs/hr	tons/yr
D026 ²	0.01	0.05	0.12	0.53	0.03	0.13	0.04	0.18	0.01	0.01	0.01	0.01
D027 ³	0.012	0.08	0.18	0.79	0.05	0.20	0.06	0.28	0.01	0.01	0.01	0.01
D028 ²	0.01	0.05	0.12	0.53	0.03	0.13	0.04	0.18	0.01	0.01	0.01	0.01
Subtotals	0.04	0.18	0.42	1.85	0.11	0.46	0.14	0.64	0.03	0.03	0.03	0.03

¹Emission factors from AP-42 Tables 1.3-1, 1.3-3, and 1.3-9.

²Based on six (6) gallons per hour and 52,560 gallons per year.

³Based on nine (9) gallons per hour and 78,840 gallons per year.

Table IV-C-17: Road Runner Portable Screen Emission Units and PTE for PM_{2.5} and PM₁₀

EU	Description	Process tons/hr	Process tons/yr	Controlled PM _{2.5} EF lbs/ton	Controlled PM ₁₀ EF lbs/ton	PM _{2.5} PTE lbs/hr	PM ₁₀ PTE lbs/hr	PM _{2.5} PTE tons/yr	PM ₁₀ PTE tons/yr
RS01	Loader to Hopper	150	50,000	0.000013	0.000046	0.01	0.01	0.01	0.01
RS03	Road Runner Incline Screen	150	50,000	0.00005	0.00074	0.01	0.11	0.01	0.02
RS02	Conveyor to Screen	150	50,000						
RS04	Screen to Stacker 1	150	50,000						
RS06	Screen to Stacker 2	150	50,000						
RS08	Underbelt Transfer to Stacker 3	100	33,333	0.000013	0.000046	0.01	0.01	0.01	0.01
RS05	Stacker 1 to Stockpile	50	16,667	0.000013	0.000046	0.01	0.01	0.01	0.01
RS07	Stacker 2 to Stockpile	50	16,667	0.000013	0.000046	0.01	0.01	0.01	0.01
RS09	Stacker 3 to Stockpile	100	33,333	0.000013	0.000046	0.01	0.01	0.01	0.01
RS10	Duetz 63 hp Diesel Engine	500 hrs/yr		See Table IV-C-19		0.13	0.13	0.03	0.03
Subtotals						0.19	0.29	0.09	0.10

Table IV-C-18: Blending System Emission Units and PTE for PM_{2.5} and PM₁₀

EU	Description	Process tons/hr	Process tons/yr	Controlled PM _{2.5} EF lbs/ton	Controlled PM ₁₀ EF lbs/ton	PM _{2.5} PTE lbs/hr	PM ₁₀ PTE lbs/hr	PM _{2.5} PTE tons/yr	PM ₁₀ PTE tons/yr
BS01	Loader to Five Bin System	450	500,000	0.000013	0.000046	0.01	0.02	0.01	0.01
BS02	Belt Feeders to Belt	450	500,000	0.000013	0.000046	0.01	0.02	0.01	0.01
BS03	Splitter to Alt Stacker (pugmill bypass)	450	500,000	0.000013	0.000046	0.01	0.02	0.01	0.01
BS03a	Stacker to Stockpile (bypass)	450	500,000	0.000013	0.000046	0.01	0.02	0.01	0.01
D013d	Pugmill Mixer (mixes supplement, water, and aggregate)	475	517,833	0.0055	0.0055	2.61	2.61	1.42	1.42
BS05a	Belt to Pugmill	450	500,000	0.000013	0.000046	0.01	0.02	0.01	0.01
BS05	Auger to Pugmill	25	8,333	0.000013	0.000046	0.01	0.01	0.01	0.01
D013a	Dual Lime Silo Loading	125	9,000	0.000051	0.00034	0.01	0.04	0.01	0.01
BS06a	Auxiliary Silo (Cement/Lime)	125	9,000	0.000051	0.00034	0.01	0.04	0.01	0.01
BS06	Guppy Silo	25	8,333	0.000051	0.00034	0.01	0.01	0.01	0.01
D013e	Belt Conveyor to Stacker	475	517,833	0.000013	0.000046	0.01	0.02	0.01	0.01
BS08	Stacker to Stockpile	475	517,833	0.000013	0.000046	0.01	0.02	0.01	0.01
Subtotals						2.72	2.86	1.53	1.53

Table IV-C-19: PTE for Diesel Generators

EU	Description	Emission Factor ¹		Pollutant	PTE lbs/hr	PTE tons/yr
A123	Caterpillar Diesel Engine; M/N: XQ225; S/N: 8JJ00309; 306 hp; DOM: 1997 2,000 hrs/yr	2.20E-04	lbs/hr	PM _{2.5} /PM ₁₀	0.07	0.07
		1.092E-02		NOx	3.34	3.34
		9.48E-04		CO	0.29	0.29
		2.05E-03		SOx	0.63	0.63
		2.51E-03		VOC	0.77	0.77
		4.52E-05		Total HAP	0.01	0.01
STM39	Caterpillar Diesel Engine; M/N: XQ225; S/N: 8JJ00651; 306 hp; DOM: 1999 12 gal/hr 2,187 hrs/yr	8.00E-03	lbs/gal	PM _{2.5} /PM ₁₀	0.10	0.10
		2.61E-01		NOx	3.13	3.42
		4.60E-02		CO	0.55	0.60
		7.10E-03		SOx	0.09	0.09
		2.00E-02		VOC	0.24	0.26
		9.59E-03		Total HAP	0.12	0.13

EU	Description	Emission Factor ¹		Pollutant	PTE lbs/hr	PTE tons/yr
GW01	MultiQuip Diesel Engine; M/N: 4SL942; S/N: 3604197; DOM: 1994 75 hp; 2,560 hrs/yr	2.20E-03	lbs/hp-hr	PM _{2.5} /PM ₁₀	0.17	0.21
		3.10E-02		NOx	2.33	2.98
		6.68E-03		CO	0.50	0.64
		2.05E-03		SOx	0.15	0.20
		2.51E-03		VOC	0.19	0.24
		4.52E-05		Total HAP	0.01	0.01
RS10	Duetz Diesel Engine; M/N: 4SL942; S/N: ; 50 kW; 67 hp; DOM: 1990s (nameplate unreadable) 500 hrs/yr	2.0E-03	lbs/hp-hr	PM _{2.5} /PM ₁₀	0.13	0.03
		3.1E-02		NOx	2.08	0.52
		6.68E-03		CO	0.45	0.11
		2.05E-03		SOx	0.14	0.03
		2.51E-03		VOC	0.17	0.04
		4.52E-5		Total HAP	0.01	0.01

¹PM₁₀, CO, and NO_x emission factors are from manufacturers' data. SO_x, VOC, and HAP emission factors are based on AP-42 3.3-1. SO_x based on a maximum 0.05% sulfur content. Emission factors are based on AP-42 3.3-1 default values.

Table IV-C-20: Southern Nevada Ready Mix Plant Emission Units and PTE for PM_{2.5} and PM₁₀

EU	Description	Process tons/hr	Process tons/yr	Controlled PM _{2.5} EF lbs/ton	Controlled PM ₁₀ EF lbs/ton	PM _{2.5} PTE lbs/hr	PM ₁₀ PTE lbs/hr	PM _{2.5} PTE tons/yr	PM ₁₀ PTE tons/yr
F001	Aggregate Unloading to Hopper 1	494	411,625	0.000013	0.000046	0.01	0.02	0.01	0.01
F002	Belt 2 to Stacker 3	494	411,625	0.000013	0.000046	0.01	0.02	0.01	0.01
F003	Stacker 3 to Stockpile	494	411,625	0.000013	0.000046	0.01	0.02	0.01	0.01
F004	Loader to 4 Comp Agg Grind Hoppers (rock/sand)	494	205,812	0.000013	0.000046	0.01	0.02	0.01	0.01
F005	Belt 5 to Belt 7	247	205,812	0.000013	0.000046	0.01	0.01	0.01	0.01
F006	Belt 6 to Belt 7	247	205,812	0.000013	0.000046	0.01	0.01	0.01	0.01
F007	Belt 7 to 4-Comp Agg. Bin 10	247	205,812	0.000013	0.000046	0.01	0.01	0.01	0.01
F009	Belt 8 to 4-Comp Agg. Bin 10	247	205,812	0.000013	0.000046	0.01	0.01	0.01	0.01
F011	Belt 9 to 4-Comp Agg. Bin 10	247	205,812	0.000013	0.000046	0.01	0.01	0.01	0.01
F012	Agg Bin 10 to Hopper 11	79	65,833	Enclosed	Enclosed	0.00	0.00	0.00	0.00
F008	Loader to Agg. Hopper 8a	247	205,812	0.000013	0.000046	0.01	0.01	0.01	0.01
F010	Loader to Agg. Hopper 9a	247	205,812	0.000013	0.000046	0.01	0.01	0.01	0.01
F013	Belt 12 to Belt 13	494	411,625	0.000013	0.000046	0.01	0.02	0.01	0.01

EU	Description	Process tons/hr	Process tons/yr	Controlled PM _{2.5} EF lbs/ton	Controlled PM ₁₀ EF lbs/ton	PM _{2.5} PTE lbs/hr	PM ₁₀ PTE lbs/hr	PM _{2.5} PTE tons/yr	PM _{2.5} PTE tons/yr	
F014a	Loading Station Central Mix (BH) ¹	90	75,000	0.0011	0.0011	0.03	0.03	0.01	0.01	
F019	Batcher 18 to Truck (BH) ¹	90	75,000	0.0011	0.0011	0.03	0.03	0.01	0.01	
F015	Fly Ash 15 Loading (Bin vent) ¹	16	13,125	0.0049	0.0049	0.02	0.02	0.01	0.01	
F017	Cement Silo 14 Loading (Bin vent) ¹	74	61,875	0.00034	0.00034	0.01	0.01	0.01	0.01	
F017a	Cement Silo 14a Loading (Bin vent) ¹	74	61,875	0.00034	0.00034	0.01	0.01	0.01	0.01	
F018	Weigh Batcher Loading 18 (Bin vent) ¹	90	75,000	0.0049	0.0049	0.11	0.11	0.05	0.05	
F016	Ash Silo to Weigh Hopper 18	16	13,125	0.000735	0.0049	0.01	0.08	0.01	0.03	
F023	Fire Storm Propane-Fired Water Heater, 4.0 MMBtu/hr	See Table IV-C-21					0.03	0.03	0.01	0.01
Subtotals						0.33	0.47	0.24	0.26	

¹BH and Bin vent denote units vented to baghouses and bin vents. Emissions from baghouse and bin vent points are computed based on 75% capture efficiency and 99.5% control efficiency.

Table IV-C-21: Ready Mix Plant Hot Water Heater PTE

EU	PM _{2.5} /PM ₁₀		NO _x		CO		SO _x		VOC		HAP	
	lbs/hr	tons/yr	lbs/hr	tons/yr	lbs/hr	tons/yr	lbs/hr	tons/yr	lbs/hr	tons/yr	lbs/hr	tons/yr
F023 ¹	0.03	0.01	0.15	0.09	0.30	0.18	0.01	0.04	0.02	0.01	0.01	0.01

¹NO_x Emissions are based on 30 ppm and CO 100 ppm. All other values based on AP-42.

Table IV-C-22: Con-E-Co Concrete Batch Plant Emission Units and PTE for PM_{2.5} and PM₁₀

EU	Description	Process tons/hr	Process tons/yr	Controlled PM _{2.5} EF lbs/ton	Controlled PM ₁₀ EF lbs/ton	PM _{2.5} PTE lbs/hr	PM ₁₀ PTE lbs/hr	PM _{2.5} PTE tons/yr	PM ₁₀ PTE tons/yr
F025	Agg. Unloading Bellydump	237	80,580	0.000013	0.000046	0.01	0.01	0.01	0.01
F026	Loader to Feedhoppers 1 - 3	237	80,580	0.000013	0.000046	0.01	0.01	0.01	0.01
F026a	Loader to Aux. Feedhopper	237	80,580	0.000013	0.000046	0.01	0.01	0.01	0.01
F027	Belts 1 - 3 to Overhead Bins	237	80,580	0.000013	0.000046	0.01	0.01	0.01	0.01
F027a	Aux Belt to Overhead Bins	237	80,580	0.000013	0.000046	0.01	0.01	0.01	0.01
F027b	Overhead Bins to Weighhopper	237	80,580	0.000013	0.000046	0.01	0.01	0.01	0.01
F027c	Weighhopper to Belt	237	80,580	0.000013	0.000046	0.01	0.01	0.01	0.01
F027d	Belt to Loadout Aggs	237	80,580	0.000013	0.000046	0.01	0.01	0.01	0.01

EU	Description	Process tons/hr	Process tons/yr	Controlled PM _{2.5} EF lbs/ton	Controlled PM ₁₀ EF lbs/ton	PM _{2.5} PTE lbs/hr	PM ₁₀ PTE lbs/hr	PM _{2.5} PTE tons/yr	PM ₁₀ PTE tons/yr
F028	Fly Ash Silo Loading (Bin vent)	45	15,300	0.0049	0.0049	0.06	0.06	0.01	0.01
F028a	Fly Ash Silo to Weigh Batcher	45	15,300	Enclosed	Enclosed	0.00	0.00	0.00	0.00
F029	Cement Silo Loading (Bin vent)	45	15,300	0.00034	0.00034	0.01	0.01	0.01	0.01
F029a	Cement Silo to Weigh Batcher	45	15,300	Enclosed	Enclosed	0.00	0.00	0.00	0.00
F030	Aux Guppy Loading 1 - 4	45	77,175	0.00034	0.00034	0.01	0.02	0.01	0.01
F031	Transit Truck Loading (BH) ¹	58	20,400	0.03	0.0263	0.39	0.39	0.07	0.07
Subtotals						0.54	0.56	0.18	0.18

¹BH and Bin Vent denotes units vented to baghouses and bin vents. Emissions from baghouses and bin vents are computed based on 75% capture efficiency and 99.5% control efficiency.

Table IV-C-23: Haul Road PTE for PM_{2.5} and PM₁₀

EU	Process	Load Limit (tons)	Road Length (miles)	VMT/yr	PM _{2.5} PTE lbs/hr	PM ₁₀ PTE lbs/hr	PM _{2.5} PTE tons/yr	PM ₁₀ PTE tons/yr
H06 ¹	Aggregate	45 tons	0.5	32,866	5.86	39.05	2.41	16.06
	Aggregate Haul Out	45 tons	0.55	29,822				
	Type 2	45 tons	0.35	10,889				
	Mine Haul	45 tons	0.30	6,666				
	Asphalt	25 tons	0.475	25,080				
	Portable Screen Hauling	45 tons	1.0	1,100				
	Blending System	45 tons	0.6	2,000				
	Southern Nevada Ready Mix	20 tons	1.0	25,000				
	Aggregate	40 tons	1.0	3,950				
	Rip Rap	25 tons	3.0	18,000				
	Ready-Mix Hauling	25 tons	0.5	2,500				
	Admixture Haul	25 tons	0.5	227				
	Cyclone Sand	25 tons	0.6	600				
	Cal Portland Hauling	20 tons	1.0	30,000				
	Wet-Cast Cement Haul In	20 tons	0.4 mi.	914				
Wet-Cast Cement Haul Out	20 tons	0.4 mi.	6,720					

Table IV-C-24: Source-wide Stockpile Area PTE for PM_{2.5} and PM₁₀

EU	Description	Acres	PM _{2.5} EF lbs/acre/day	PM ₁₀ EF lbs/acre/day	PM _{2.5} PTE lbs/hr	PM ₁₀ PTE lbs/hr	PM _{2.5} PTE tons/yr	PM ₁₀ PTE tons/yr
G01	Entire Plant	45.0	0.249	1.66	0.47	3.11	2.0445	13.63

Table IV-C-25: Cyclone Sand Loadout System Emission Unit List and PTE for PM_{2.5} and PM₁₀

EU	Description	Process tons/hr	Process tons/yr	Controlled PM _{2.5} EF lbs/ton	Controlled PM ₁₀ EF lbs/ton	PM _{2.5} PTE lbs/hr	PM ₁₀ PTE lbs/hr	PM _{2.5} PTE tons/yr	PM ₁₀ PTE tons/yr
CS01	Loader to Masterscreen Feed Hopper w/ Static Grizzle	25	15,000	0.000013	0.000046	0.01	0.01	0.01	0.01
CS02	Loadout Belt to Pneumatic Truck	25	15,000	0.000013	0.000046	0.01	0.01	0.01	0.01
Subtotals						0.02	0.02	0.02	0.02

Table IV-C-26: Precast Management Mobile Mini Mixer Emission Units and PTE for PM_{2.5} and PM₁₀

EU	Description	Process tons/hr	Process tons/yr	Controlled PM _{2.5} EF lbs/ton	Controlled PM ₁₀ EF lbs/ton	PM _{2.5} PTE lbs/hr	PM ₁₀ PTE lbs/hr	PM _{2.5} PTE tons/yr	PM ₁₀ PTE tons/yr
MM01	2 Comp. Feed Bin	2,370	23,700	0.000013	0.000046	0.03	0.11	0.01	0.01
MM02	Charge Belt	2,370	23,700	0.000013	0.000046	0.03	0.11	0.01	0.01
MM03	3/4 Yard Mixer	330	3,300	0.000285	0.0019	0.09	0.63	0.01	0.01
MM04	Cement Hopper	330	3,300	0.000051	0.00034	0.02	0.11	0.01	0.01
MM05	Disturbed Surfaces	1.5 acres		0.249 lbs/acre-day	1.66 lbs/acre-day	0.02	0.11	0.07	0.45
Subtotals						0.19	1.06	0.11	0.49

Table IV-C-27: Precast Management Mobile Mini Mixer Engines and PTE

EU	Description	PM ₁₀ EF (lbs/hp-hr) ¹	Pollutant	PTE lbs/hr	PTE tons/yr
MM06	Perkins Diesel Engine; M/N: TBD; S/N: TBD; 21 hp; DOM: 2000 500 hrs/yr	2.20E-03	PM _{2.5} /PM ₁₀	0.05	0.01
		3.10E-02	NOx	0.65	0.16
		6.68E-03	CO	0.14	0.04
		2.05E-03	SOx	0.04	0.01
		2.51E-03	VOC	0.05	0.01
		4.52E-05	Total HAP	0.01	0.01
MM08	MQ Power Engine; M/N: DCA25SSIU;	1.30E-03	PM _{2.5} /PM ₁₀	0.04	0.02

EU	Description	PM ₁₀ EF (lbs/hp-hr) ¹	Pollutant	PTE lbs/hr	PTE tons/yr
	S/N: 7105410; 30 hp; DOM: 2000 1,200 hrs/yr	8.91E-03	NO _x	0.27	0.16
		2.43E-03	CO	0.07	0.04
		2.05E-03	SO _x	0.06	0.04
		2.51E-03	VOC	0.08	0.05
		4.52E-05	Total HAP	0.01	0.01

¹Emission factors from AP-42 except PM₁₀, NO_x, and CO which are from manufacturer's emission data sheets.

Table IV-C-28: CalPortland Plant One Emission Units and PTE for PM_{2.5} and PM₁₀

EU	Description	Process tons/hr	Process tons/yr	Controlled PM _{2.5} EF lbs/ton	Controlled PM ₁₀ EF lbs/ton	PM _{2.5} PTE lbs/hr	PM ₁₀ PTE lbs/hr	PM _{2.5} PTE tons/yr	PM ₁₀ PTE tons/yr
STM01	Unloading Aggregate Belly dump	494	642,135	0.000013	0.000046	0.01	0.02	0.01	0.01
STM02	Loader to Aggregate Hopper 1a	123	160,534	0.000013	0.000046	0.01	0.01	0.01	0.01
STM03	Loader to Aggregate Hopper 2a	123	160,534	0.000013	0.000046	0.01	0.01	0.01	0.01
STM04	Loader to Aggregate Hopper 3a	123	160,534	0.000013	0.000046	0.01	0.01	0.01	0.01
STM04a	Loader to Aux. Hopper	123	160,534	0.000013	0.000046	0.01	0.01	0.01	0.01
STM06	Belt 1 to 5 Comp Storage Bin (T. P.)	123	160,534	0.000013	0.000046	0.01	0.01	0.01	0.01
STM07	Belt 2 to 5 Comp Storage Bin	123	160,534	0.000013	0.000046	0.01	0.01	0.01	0.01
STM08	Belt 3 to 5 Comp Storage Bin	123	160,534	0.000013	0.000046	0.01	0.01	0.01	0.01
STM08a	Belt 4 to Weigh Hopper	123	160,534	0.000013	0.000046	0.01	0.01	0.01	0.01
STM10	Weigh Hopper 5 to Underbelt 6	494	642,135	0.000013	0.000046	0.01	0.02	0.01	0.01
STM13	Cement Silo 7 Loading (Bin vent) ¹	74	48,263	0.00034	0.00034	0.01	0.01	0.01	0.01
STM13a	Cement Silo 7a Loading (Bin vent) ¹	74	48,263	0.00034	0.00034	0.01	0.01	0.01	0.01
STM14	Guppy Silo 11 Loading (Bin vent) ¹	16	96,525	0.00034	0.00034	0.01	0.01	0.01	0.01
STM15	Fly Ash Silo 8 Loading (Bin vent) ¹	74	20,475	0.0049	0.0049	0.09	0.09	0.01	0.01
STM16	Cement to Weigh Batcher (Bin vent) ¹	74	96,525	0.01	0.01	0.19	0.19	0.12	0.12
STM17	Fly Ash to Weigh Batcher (Bin vent) ¹	74	96,525	0.01	0.01	0.19	0.19	0.12	0.12
STM18	Transit Truck Loading Station (BH) ¹	90	117,000	0.0087	0.0087	0.30	0.86	0.19	0.56
STM18a	Belt 6 to Transit Truck	90	117,000	0.0011	0.0074	0.10	0.67	0.06	0.43
STM19	Storage Piles- 4 Acres	4.0 Acres	N/A	0.249	1.66	0.04	0.28	0.18	1.21

EU	Description	Process tons/hr	Process tons/yr	Controlled PM _{2.5} EF lbs/ton	Controlled PM ₁₀ EF lbs/ton	PM _{2.5} PTE lbs/hr	PM ₁₀ PTE lbs/hr	PM _{2.5} PTE tons/yr	PM ₁₀ PTE tons/yr
STM19a	Water Heater <1MMBtu/hr (Categorically Exempt)	Categorically Exempt							
Subtotals						1.03	2.43	0.83	2.60

¹BH and Bin vent denote units vented to baghouses and bin vents. Emissions from baghouse and bin vent points are computed based on 75% capture efficiency and 99.5% control efficiency.

Table IV-C-29: Cal Portland Plant Three Emission Units and PTE for PM_{2.5} and PM₁₀

EU	Description	Process tons/hr	Process tons/yr	Controlled PM _{2.5} EF lbs/ton	Controlled PM ₁₀ EF lbs/ton	PM _{2.5} PTE lbs/hr	PM ₁₀ PTE lbs/hr	PM _{2.5} PTE tons/yr	PM ₁₀ PTE tons/yr
STM44	Radial Stacker	474	474,000	0.000013	0.000046	0.01	0.02	0.01	0.01
STM43	Drive over Hopper	474	474,000	0.000013	0.000046	0.01	0.02	0.01	0.01
STM45	Hopper to Agg. Belt 1	95	94,800	0.000013	0.000046	0.01	0.01	0.01	0.01
STM46	Hopper to Agg. Belt 2	95	94,800	0.000013	0.000046	0.01	0.01	0.01	0.01
STM47	Hopper to Agg. Belt 3	95	94,800	0.000013	0.000046	0.01	0.01	0.01	0.01
STM48	Hopper to Agg. Belt 4	95	94,800	0.000013	0.000046	0.01	0.01	0.01	0.01
STM49	Hopper to Agg. Belt 5	95	94,800	0.000013	0.000046	0.01	0.01	0.01	0.01
STM55	Agg. Bin (5 compartment)	474	474,000	0.000013	0.000046	0.01	0.02	0.01	0.01
STM50	Belt 6 to Agg. Bin	95	94,800	0.000013	0.000046	0.01	0.01	0.01	0.01
STM51	Belt 7 to Agg. Bin	95	94,800	0.000013	0.000046	0.01	0.01	0.01	0.01
STM52	Belt 8 to Agg. Bin	95	94,800	0.000013	0.000046	0.01	0.01	0.01	0.01
STM53	Belt 9 to Agg. Bin	95	94,800	0.000013	0.000046	0.01	0.01	0.01	0.01
STM54	Belt 10 to Agg. Bin	95	94,800	0.000013	0.000046	0.01	0.01	0.01	0.01
STM56	Bin to Weigh Hopper	474	474,000	Enclosed	Enclosed	0.00	0.00	0.00	0.00
STM57	Belt A13 to Truck Loadout	474	474,000	0.000051	0.00034	0.02	0.16	0.01	0.08
STM58	Cement Silo #1 Loading	20	20,000	0.000051	0.00034	0.01	0.01	0.01	0.01
STM59	Cement Silo #2 Loading	20	20,000	0.000051	0.00034	0.01	0.01	0.01	0.01
STM60	Fly Ash Silo Loading	30	30,000	0.000735	0.0049	0.02	0.15	0.01	0.07
STM61	Silos to Weigh Batcher	90	90,000	0.000360	0.0024	0.03	0.22	0.02	0.11
STM62	Truck Loading (BH) ¹	90	90,000	0.0087	0.0087	0.20	0.20	0.10	0.10
STM63	Guppy Silo (Bin vent) ¹	60	60,000	0.0034	0.00034	0.05	0.01	0.03	0.01
STM64	Ash Guppy Silo (Bin vent) ¹	30	30,000	0.0049	0.0049	0.04	0.04	0.02	0.02

EU	Description	Process tons/hr	Process tons/yr	Controlled PM _{2.5} EF lbs/ton	Controlled PM ₁₀ EF lbs/ton	PM _{2.5} PTE lbs/hr	PM ₁₀ PTE lbs/hr	PM _{2.5} PTE tons/yr	PM ₁₀ PTE tons/yr
STM65	Cement Silo (Bin vent) ¹	20	20,000	0.0034	0.00034	0.02	0.01	0.01	0.01
STM66	Disturbed Surface	2.0 acres		0.249 lbs/acre/day	1.66 lbs/acre/day	0.14	0.14	0.09	0.61
STM68	Diesel Generator (490 hp, Caterpillar Engine)	See Table 30				0.12	0.12	0.12	0.12
STM19a	Pearson Water Heater <1MMBtu/hr (Categorically Exempt)	Categorically Exempt				--	--	--	--
Subtotals						0.79	1.23	0.55	1.28

¹BH and Bin vent denote units vented to baghouses and bin vents. Emissions from baghouse and bin vent points are computed based on 75% capture efficiency and 99.5% control efficiency.

Table IV-C-30: Cal Portland Diesel Generator PTE

EU	PM _{2.5} /PM ₁₀		NO _x		CO		SO _x		VOC		HAP	
	lbs/hr	tons/yr	lbs/hr	tons/yr	lbs/hr	tons/yr	lbs/hr	tons/yr	lbs/hr	tons/yr	lbs/hr	tons/yr
STM68 490 hp Genset ¹ Make: Caterpillar, M/N: 3406, S/N: 4ZR04354 DOM: 1998	0.12	0.12	8.25	8.25	0.81	0.81	0.18	0.18	0.13	0.13	0.24	0.24

¹Emissions based on AP-42 3.3-a default values.

Table IV-C-31: Aggregate/Cement Products Wet-Cast Plant Emission Units and PTE for PM_{2.5} and PM₁₀

EU	Description	Process tons/hr	Process tons/yr	Controlled PM _{2.5} EF lbs/ton	Controlled PM ₁₀ EF lbs/ton	PM _{2.5} PTE lbs/hr	PM ₁₀ PTE lbs/hr	PM _{2.5} PTE tons/yr	PM ₁₀ PTE tons/yr
AP22	Loader to 4 Comp Agg Bins	16	109,760	0.000013	0.000046	0.01	0.01	0.01	0.01
AP23	Belt Feeders to Belt 2	16	109,760	0.000013	0.000046	0.01	0.01	0.01	0.01
AP24	Belt 2 to Elevator	16	109,760	0.000013	0.000046	0.01	0.01	0.01	0.01
SP25	Elevator to Weigh Hopper	16	109,760	0.00036	0.0024	0.01	0.04	0.02	0.13
AP26	Weigh Hopper to Mixer	16	109,760	0.000013	0.000046	0.01	0.01	0.01	0.01
AP27	Concrete Mixer (Bin vent)	19	133,560	0.000013	0.000046	0.01	0.01	0.01	0.01
AP28	Mixer to Wet Concrete Molding	19	133,560	0.00	Wet Process	0.00	0.00	0.00	0.00

EU	Description	Process tons/hr	Process tons/yr	Controlled PM _{2.5} EF lbs/ton	Controlled PM ₁₀ EF lbs/ton	PM _{2.5} PTE lbs/hr	PM ₁₀ PTE lbs/hr	PM _{2.5} PTE tons/yr	PM ₁₀ PTE tons/yr
AP29	Cement Silo Loading	20	23,800	0.00051	0.0034	0.01	0.07	0.01	0.04
AP40a	Cement Unloading to Silo #2	20	23,800	0.00051	0.0034	0.01	0.07	0.01	0.04
AP30	Silo Screws to Mixer	3	23,800	0.00057	0.0038	0.01	0.01	0.01	0.05
AP40b	Fly Ash Silo loading via pneumatic transfer. Unload via enclosed auger	125	4,000	0.00074	0.0049	0.09	0.61	0.01	0.01
AP31	Storage Piles/Disturbed Surfaces	2.0 acres		0.25 lbs/acre-day	1.66 lbs/acre-day	0.02	0.14	0.09	0.61
AP48	Tumbler (BH) ¹	9	40,000	0.00005	0.00005	0.01	0.01	0.01	0.01
AP47	Hopper Belt to Tumbler	9	40,000	0.00001	0.00005	0.01	0.01	0.01	0.01
AP49	Tumbler to Belt Conveyor	9	40,000	0.00001	0.00005	0.01	0.01	0.01	0.01
Subtotals						0.23	1.02	0.23	0.96

¹BH denotes unit vented to baghouse. Emissions from baghouse is computed based on 75% capture efficiency and 99.5% control efficiency.

Table IV-C-32: Media Blasting Emission Unit and PTE¹

EU	Description	PM ₁₀ EF (lbs/1,000 lbs of abrasive)	PM ₁₀ PTE lbs/hr	PM ₁₀ PTE tons/yr
MB01	Media Blasting Operations, 48"x28"x28" enclosure vented to a dust collector.	0.69	0.50	0.25

¹Based on a sand mass flow rate of 721.7 lbs/hr

Table IV-C-33: Gasoline Dispensing Emission Units and PTE

EU	Description	M/N	S/N	VOC PTE (lbs/hr)	VOC PTE (tons/yr)
FT01	500 gallon above ground gasoline storage tank			0.06	0.26
FT02	500 gallon above ground gasoline storage tank			0.06	0.26
Subtotals				0.12	0.52

D. Performance Testing

All performance tests shall be conducted in accordance with 40 CFR 60 Appendix A - Test Methods, DAQ Performance Test Frequency Guidelines (as revised), and DAQ Guideline on Performance Testing (as revised).

The Permittee shall conduct the performance tests listed in Table IV-D-1 on the Asphalt Drum Mixer (EU: D014) to comply with the requirements of AQR 12.5.2.6(d) and 40 CFR 60 Subpart I:

Table IV-D-1: Asphalt Drum Mixer Performance Testing Protocol Requirements (EU: D014)

Test Point	Pollutant	Method	Frequency
Exhaust Outlet Stack	PM	EPA Method 5	Every 5 Years
Exhaust Outlet Stack	NOx	EPA Method 7E	Every 5 Years
Exhaust Outlet Stack	CO	EPA Method 10 analyzer	Every 5 Years
Stack Gas Parameters	-	EPA Methods 1, 2, 3A, and 4	Every 5 Years

Baghouses subject to 40 CFR 60 Subparts I and OOO will have the performance tests listed in Table IV-D-2 to meet the compliance requirements of the subparts.

Table IV-D-2: Baghouse Performance Testing Protocol Requirements

Test Point	Pollutant	Test Type	Frequency
Exhaust Outlet Stack	PM	EPA Method 5	Every 5 Years
Stack Gas Parameters	-	EPA Methods 1, 2, 3A, and 4	Every 5 Years

The applicable limits for grain loading standard and opacity for the baghouses are listed in Table IV-D-3.

Table IV-D-3: Opacity and PM Testing Protocol Requirements

Baghouse ID	Applicable Limits		Stack Test Frequency
	Opacity	PM Limit	
DC1	7% Subpart OOO	0.05 g/dscm Subpart OOO	Every 5 Years
LMC West 2 hp model 5x4 VSD6	7% Subpart OOO	0.05 g/dscm Subpart OOO	Every 5 Years
DC2	7% Subpart OOO	0.05 g/dscm Subpart OOO	Every 5 Years
Astec 200 hp (twin) Pulsejet	20% Subpart I	0.04gr/dscm Subpart I	Every 5 Years
Donaldson 10 hp	20%	(not subject to NSPS)	Every 5 Years

E. Emissions Monitoring

Compliance Assurance Monitoring (CAM) is intended to provide for monitoring to assess compliance with emission limitations. CAM requirements apply only to those emission units that have some type of emission limitations, use a control device to comply with the limitation, and have a pre-control potential emission that exceeds the major source threshold for the particular pollutant controlled. Certain specific exemptions may apply for emission units subject to other regulatory programs. In some cases, a device used as a control device for some processes may

in fact be integral to another process in other case and exempt for that reason as well. CAM requirements include the development of a monitoring program for a selection of parameters indicative of control device operability and performance and, therefore, compliance with an applicable emission limitation.

The control devices at the source include a number of baghouses used to control PM₁₀ emissions. The only pollutant to be emitted from a single emission unit at an uncontrolled level above the major source threshold is PM₁₀ from the Astec Drum Mixer. Table IV-E-1 lists the emission unit at the source that is subject to the CAM rule.

Table IV-E-1: Emission Units Subject to CAM

EU	Description	Control Device	Pre-control PM ₁₀ Emissions (tpy)
D014	Astec Drum Mixer	Baghouse	161.70

Table IV-E-2: CAM Monitoring Approach – PM₁₀

CAM Element	Indicator 1	Indicator 2
Indicator	Pressure Drop (Δp) Across Baghouse	Daily Method 9 (Opacity)
Measurement Approach	Pressure drop is measured each operating day. An internal inspection of the baghouse is performed monthly.	An EPA Method 9 is conducted daily.
Indicator Range	The baghouse pressure drop will be monitored for compliance and be between 2.0 and 6.0 inches of water when the drum mixer is operating.	Opacity is limited to 10% for an aggregate 6 minute period during any 60 minute period.
Action Threshold	The action threshold for Δp is between 2.0 and 6.0 inches of water. Action thresholds trigger an inspection and corrective action, or documentation that the system is operating normally.	Not applicable
QIP Thresholds	None selected	More than three (3) excursions within a quarterly reporting period
Performance Criteria Data Representativeness	Filterable PM ₁₀ emissions are measured every 5 years using a Method 5.	Observations are made at the baghouse exhaust.
Verification of Operational Status	Not applicable	Not applicable
QA/QC Practices and Criteria	The pressure gauge will be calibrated or replaced annually.	The VE observer will be familiar with baghouse operations and visible emissions.
Monitoring Frequency	Daily	Daily
Data Collection Procedures	The pressure drop is measured each operating day and the baghouse exterior. An internal inspection of the baghouse is performed monthly.	A Method 9 is performed and documented daily.
Averaging Period	Not applicable	Opacity is limited to 10% for an aggregate 6 minute period during any 60 minute period.

V. REGULATORY REVIEW

A. Local Regulatory Requirements

DAQ has determined that the following public law, statutes and associated regulations are applicable:

1. Nevada Revised Statutes (NRS), Chapter 445B;
2. Portions of the AQR included in the State Implementation Plan (SIP) for Clark County, Nevada. SIP requirements are federally enforceable. All requirements from Authority to Construct permits and Section 16 Operating Permits issued by DAQ are federally enforceable because these permits were issued pursuant to SIP-included sections of the AQR; and
3. Portions of the AQR not included in the SIP. These locally applicable requirements are locally enforceable only.

The Nevada Revised Statutes (NRS) and the Clean Air Act Amendments (CAAA) are public laws that establish the general authority for the Regulations mentioned.

The DAQ Part 70 (Title V) Program received Final Approval on November 30, 2001 with publication of that approval appearing in the Federal Register December 5, 2001 Vol. 66, No. 234. AQR Section 12.5 - Part 70 Operating Permits details the Clark County Part 70 Operating Permit Program. These regulations may be accessed on the Internet at:

<http://www.clarkcountynv.gov/Depts/dagem/Pages/CurrentRulesandRegulations.aspx>

Local regulations contain sections that are federally enforceable and sections that are locally enforceable only. EPA has not approved locally enforceable only rules for inclusion into the State Implementation Plan (SIP). Requirements and conditions that appear in the Part 70 OP, which are related only to non-SIP rules, are notated as locally enforceable only.

Table V-A-1: AQR Section 12 Summary Table for This Source

	PM ₁₀	NO _x	CO	SO ₂	VOC	HAP
Air Quality Area	nonattainment	nonattainment (ozone)	PSD	PSD	nonattainment (ozone)	N/A
Source PTE (tpy)	83.79	47.04	67.16	21.10	12.75	3.34
Major Source	70 tpy	100 tpy	100 tpy	100 tpy	100 tpy	Single 10 tpy/ Combined 25 tpy

Discussion: Aggregate Industries is a major source of PM₁₀ and a minor source for all the other regulated pollutants.

AQR SECTION 11 - AMBIENT AIR QUALITY STANDARDS

Discussion: The PSD Class II increment consumption as a result of this modification is listed is outlined in Table V-A-2.

Table V-A-2: PSD Increment Consumption

Pollutant	Averaging Period	PSD Increment Consumption by the Source ($\mu\text{g}/\text{m}^3$)	Location of Maximum Impact	
			UTM X (m)	UTM Y (m)
SO ₂	3-hour	57.78 ¹	661662	3979156
SO ₂	24-hour	18.14 ¹	660968	3979037
SO ₂	Annual	0.58	660667	3979228
NO ₂	Annual	2.19	660265	3979350

¹ Modeled 2nd High Concentration.

Table V-A-2 shows the location of the maximum impact and the potential PSD increment consumed by the source at that location. The impacts are below the PSD increment limits.

B. Federally Applicable Regulations

DAQ has determined that the following federal regulations are applicable:

1. Clean Air Act, as amended (CAAA), Authority: 42 U.S.C. § 7401, et seq
2. Title 40 of the Code of Federal Regulations (CFR)

40 CFR PART 60-STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES:

Subpart A – General Provisions

40 CFR 60.7 – Notification and record keeping

Discussion: This regulation requires notification to DAQ of modifications, opacity testing, records of malfunctions of process equipment, and performance test data. These requirements are found in the Part 70 OP. DAQ requires records to be maintained for five years, a more stringent requirement than the two (2) years required by § 60.7.

40 CFR 60.8 – Performance test

Discussion: These requirements are found in the Part 70 OP. Notice of intent to test, the applicable test methods, acceptable test method operating conditions, and the requirement for three runs are outlined in this regulation. DAQ requirements for initial performance testing are identical to § 60.8. DAQ also requires periodic performance testing on emission units based upon throughput or usage. More discussion is in this document under the compliance section.

40 CFR 60.11 – Compliance with standards and maintenance requirements

Discussion: Aggregate Industries is subject to two NSPS standards: Subpart I – Standards of Performance for Hot Mix Asphalt Facilities and Subpart OOO – Standards of Performance for Nonmetallic Mineral Processing Plants. Compliance requirements for these standards are discussed in corresponding sections.

40 CFR 60.12 – Circumvention

Discussion: These requirements are found in the Part 70 OP. This is also SIP-approved local rule § 80.1.

40 CFR 60.13 – Monitoring requirement

Discussion: The Part 70 OP contains the monitoring conditions. In addition, the CAM plan approved for the monitoring procedures follows the requirements outlined, including the span time and recording time.

Subpart I – Standards of Performance for Hot Mix Asphalt Facilities

40 CFR § 60.90 – Applicability and designation of affected facility.

Discussion: Subpart I applies to the source as a hot mix asphalt plant is operated at the source.

40 CFR 60.92 – Standard for particulate matter.

Discussion: The Permittee is subject to the particulate matter standards and emission limits of the Subpart. The permitted emission limits of 0.04 grains per dry standard cubic foot and 20 percent opacity are as stringent as the limits in the Subpart.

40 CFR 60.93 - Test methods and procedures.

Discussion: The Permittee shall determine compliance with the PM standards using test methods described in this subsection. Opacity standards to be demonstrated using Method 9, annually, and the PM emission standards are to be demonstrated using Method 5, every five years. These requirements are found in the Part 70 OP.

Subpart 000 – Standards of Performance for Nonmetallic Mineral Processing Plants

40 CFR § 60.670 – Applicability and designation of affected facility.

Discussion: Subpart 000 applies to the source because it is screening operation with crushers.

40 CFR 60.672 – Standard for particulate matter.

Discussion: The Permittee is subject to the requirements of particulate matter standards and emission limits, including the PM limit and opacity limits, as described in Tables 2 and 3 of the Subpart. These requirements are found in the Part 70 OP.

40 CFR 60.675 - Test methods and procedures.

Discussion: The Permittee shall determine compliance with the PM standards using test methods described in this subsection. Opacity standards to be demonstrated using Method 9, annually, and the PM emission standards are to be demonstrated using Method 5, every five years. These requirements are found in the Part 70 OP.

40 CFR 60.676 – Reporting and recordkeeping.

Discussion: The Permittee shall submit to the Administrator and to the Control Officer information required by this subsection. Specific record keeping and reporting requirements are identified in the Part 70 OP.

Subpart III – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

40 CFR 60.4200 – Applicability Determination

Discussion: The provisions of this subpart are applicable to manufacturers, owners, and operators of stationary compression ignition (CI) internal combustion engines (ICE) with a displacement less than 30 liters per cylinder where the model year is 2007 or later, for engines that are not fire pumps, and July 1, 2006, for ICE certified by National Fire Protection Association as fire pump engines. This subpart does not apply to diesel engines at this source as all were manufactured prior to the applicability date.

40 CFR PART 64 – COMPLIANCE ASSURANCE MONITORING

40 CFR 64.2 – Applicability

Discussion: The Astec Drum Mixer (EU: D014) is subject to CAM. The Drum Mixer emissions are controlled by a baghouse for PM₁₀. Based on CAM Plan applicability criteria, CAM is applicable to a pollutant with a control device, in this case PM₁₀.

Daily measurements of pressure differential between inlet and outlet of the baghouse for PM₁₀ and visible emission for opacity were selected as CAM indicators. For opacity readings, the visible emissions of 10% or less opacity demonstrates compliance. The key elements of the monitoring approach are presented in Section IV-E of this TSD.

40 CFR PART 72 – ACID RAIN PERMITS REGULATION

Subpart A – Acid Rain Program General Provisions

40 CFR 72.6 – Applicability

Discussion: Aggregate Industries does not include any fossil fuel-fired electric utility unit as defined in 40 CFR Part 72; therefore, the provisions of this regulation do not apply.

40 CFR PART 73 – ACID RAIN SULFUR DIOXIDE ALLOWANCE SYSTEM

Discussion: The provisions of this regulation do not apply based on 40 CFR Part 72.6.

40 CFR PART 75 – CONTINUOUS EMISSION MONITORING

Discussion: Aggregate Industries is not subject to the Acid Rain emission limitations of 40 CFR Part 72; therefore, the source is not subject to the monitoring requirements 40 CFR Part 75.

40 CFR PARTS 51, 52, 70, and 71

On June 3, 2010, EPA published the final Prevention of Significant Deterioration (PSD) and Title V Greenhouse Gas Tailoring Rule (herein referred to as the Tailoring Rule; 75 FR 31514), setting thresholds for GHG emissions that define when permits under these programs are required for new and existing industrial facilities.

Step 2 of the Tailoring Rule implementation began on July 1, 2011. Under Step 2, “anyway” title V sources—that is, sources already subject to title V based on non-GHGs and that are covered under Step 1 previously—will continue to be subject to title V. In addition, GHG emission sources that equal or exceed the 100,000 tpy CO₂e threshold will be required to obtain a title V permit if they do not already have one. It is important to note that the requirement to obtain a title V permit will not, by itself, result in the triggering of additional substantive requirements or control of GHG. Rather, these new title V permits will simply incorporate whatever applicable CAA requirements, if

any, apply to the source being permitted. Both of the following conditions need to be met in order for title V to apply under Step 2 to a GHG emission source: (1) An existing or newly constructed source emits or has the potential to emit GHGs in amounts that equal or exceed 100 tpy calculated as the sum of the six well-mixed GHGs on a mass basis (no GWPs applied). (2) An existing or newly constructed source emits or has the potential to emit GHGs in amounts that equal or exceed 100,000 tpy calculated as the sum of the six well-mixed GHGs on a CO₂e basis.

The Permittee's estimated CO₂ emissions are 13,834.26 tpy and therefore, the source is not subject to the requirements of the Tailoring Rule. Table V-B-1 shows the CO₂ for each fuel-burning emission unit at the source.

Table V-B-1: Greenhouse Gas Emissions (CO₂)

EU	EU Type	Annual Usage	EF	U.S. Tons	Metric Tons
A14	Asphalt Drum Mixer	660,000 ton/yr	33 lbs/ton ¹	10890.00	9879.19
D026, D027, and D028	Asphalt Heaters	183,960 gal/yr	22.3 lbs/gal ²	2051.15	1860.77
A123	Diesel Generators	306 hp and 2,000 hrs	1.15 lbs/hp-hr ³	351.90	319.24
STM39		306 hp and 2,187 hrs		384.80	349.09
GW01		75 hp and 2,560 hrs		110.40	100.15
RS10		67 hp and 500 hrs		19.26	17.47
MM06		21 hp and 500 hrs		6.04	5.48
MM08		30 hp and 1,200 hrs		20.70	18.78
Totals				13,834.26	12,550.16

¹Emission factor based on AP-42 Section 11.1.

²Emission factor based on AP-42 Section 1.3.

³Emission factor based on AP-42 Section 3.1.

VI. COMPLIANCE

A. Compliance Certification

Requirements for compliance certification:

- (a) Regardless of the date of issuance of this Part 70 OP, the schedule for the submittal of reports to the DAQ shall be as follows:

Table VI-A-1: Reporting Schedule

Required Report	Applicable Period	Due Date ¹
Semi-annual Report for 1st Six-Month Period	January, February, March, April, May, June	July 30 each year
Semi-annual Report for 2 nd Six-Month Period, Any additional	July, August, September, October, November, December	January 30 each year

Required Report	Applicable Period	Due Date ¹
annual records required.		
Annual Compliance Certification Report	Calendar Year	January 30 each year
Annual Emission Inventory Report	Calendar Year	March 31 each year
Excess Emission Notification	As Required	Within 24 hours of the time the Permittee first learns of the excess emissions
Excess Emission Report	As Required	Within 72 hours of the notification
Deviation Report	As Required	Along with semi-annual reports
Performance Testing	As Required	Within 60 days from the end of the test.

¹If the due date falls on a Saturday, Sunday or a Federal or Nevada holiday, then the submittal is due on the next regularly scheduled business day.

- (b) A statement of methods used for determining compliance, including a description of monitoring, recordkeeping, and reporting requirements and test methods.
- (c) A schedule for submission of compliance certifications during the permit term.
- (d) A statement indicating the source's compliance status with any applicable enhanced monitoring and compliance certification requirements of the Act.

B. Compliance Summary – Clark County Air Quality Regulations

Citation	Title	Applicability	Applicable Test Method	Compliance Status
AQR Section 0	Definitions.	Applicable – Aggregate Industries will comply with all applicable definitions as they apply.	Aggregate Industries will meet all applicable test methods should new definitions apply.	Aggregate Industries complies with applicable requirements.
AQR Section 4	Control Officer.	Applicable – The Control Officer or his representative may enter into Aggregate Industries property, with or without prior notice, at any reasonable time for purpose of establishing compliance.	Aggregate Industries will allow Control Officer to enter Station property as required.	Aggregate Industries complies with applicable requirements.
AQR Section 11	Ambient Air Quality Standards.	Applicable – Aggregate Industries is a source of air pollutants.	Aggregate Industries demonstrated compliance in the ATC permit application with air dispersion modeling.	Aggregate Industries complies with applicable requirements.
AQR Section 12.4 (07/01/2010)	Authority to Construct Application and Permit Requirements for Part 70 Sources	Applicable – Aggregate Industries applied for and the ATC certificates were issued before commencing construction.	Aggregate Industries received the ATC permits to construct.	Aggregate Industries complies with applicable requirements.
AQR Section 12.5	Part 70 Operating Permit Requirements	Applicable – Aggregate Industries applied for the Title V Operating Permit within the required time frame.	Aggregate Industries shall submit applications for new units within 12 months of startup.	Aggregate Industries complies with applicable requirements.

Citation	Title	Applicability	Applicable Test Method	Compliance Status
AQR Section 14.1.1 Subpart A	NSPS – General Provisions	Applicable – Aggregate Industries is an affected facility (for NSPS Subparts I and OOO) under the regulations. Section 14 is locally enforceable; however, the NSPS standards referenced are federally enforceable.	Applicable testing, monitoring, recordkeeping and reporting requirements.	Aggregate Industries complies with applicable requirements.
AQR Section 14.1.21 Subpart I	New Source Performance Standards – Standards of Performance for Hot Mix Asphalt Facilities	Applicable – Aggregate Industries has emission units processing hot mix asphalt.	Applicable performance tests requirements.	Aggregate Industries complies with applicable requirements.
AQR Section 14.1.94 Subpart OOO	New Source Performance Standards – Standards of Performance for Nonmetallic Mineral Processing Plants	Applicable – Aggregate Industries has emission units processing more than 25 tons per hour of the mineral material.	Applicable performance tests, opacity tests, monitoring, recordkeeping and reporting requirements.	Aggregate Industries complies with applicable requirements.
AQR Section 18	Permit and Technical Service Fees	Applicable – Aggregate Industries will be required to pay all required/applicable permit and technical service fees.	Aggregate Industries is required to pay all required/applicable permit and technical service fees.	Aggregate Industries complies with applicable requirements.
AQR Section 21	Acid Rain Permits	Not Applicable – per 40 CFR 72.6(b)(1).	Not Applicable.	Not Applicable.
AQR Section 22	Acid Rain Continuous Emission Monitoring	Not Applicable – per 40 CFR 72.6(b)(1).	Not Applicable.	Not Applicable.
AQR Section 25	Upset/Breakdown, Malfunctions	Applicable – Any upset, breakdown, emergency condition, or malfunction which causes emissions of regulated air pollutants in excess of any permit limits shall be reported to Control Officer. Section 25.1 is locally and federally enforceable.	Any upset, breakdown, emergency condition, or malfunction in which emissions exceed any permit limit shall be reported to the Control Officer within one (1) hour of onset of such event.	Aggregate Industries complies with applicable requirements.
AQR Section 26	Emissions of Visible Air Contaminants	Applicable – Opacity for the Aggregate Industries processing equipment must not exceed 20 percent for more than 6 consecutive minutes.	Compliance determined by EPA Method 9.	Aggregate Industries complies with applicable requirements.
AQR Section 27	Particulate Matter from Process Weight Rate	Applicable - The PM ₁₀ hourly emission rate for the process is below the rate established in Section 27 requirements.	Applicable, monitoring, recordkeeping and reporting requirements.	Aggregate Industries complies with applicable requirements.

Citation	Title	Applicability	Applicable Test Method	Compliance Status
AQR Section 28	Fuel Burning Equipment	Applicable – The PM emission rate for the fuel burning equipment is well below those established based on Section 28 requirements.	Maximum allowable PM emission rate determined from equation in Section 28.	Aggregate Industries complies with applicable requirements.
AQR Section 29	Sulfur Content of Fuel Oil	Applicable – The diesel fuel that will be burned at the facility will require low sulfur fuel with sulfur content less than 0.05 percent by weight. Section 29 is locally enforceable only.	Fuel sulfur content verification obtained from fuel oil supplier.	Aggregate Industries complies with applicable requirements.
AQR Section 40	Prohibition of Nuisance Conditions	Applicable – No person shall cause, suffer or allow the discharge from any source whatsoever such quantities of air contaminants or other material which cause a nuisance. Section 40 is locally enforceable only.	Aggregate Industries air contaminant emissions controlled by pollution control devices or good combustion in order not to cause a nuisance.	Aggregate Industries complies with applicable requirements.
AQR Section 41	Fugitive Dust	Applicable – Aggregate Industries shall take necessary actions to abate fugitive dust from becoming airborne.	Aggregate Industries utilizes appropriate best practices to not allow airborne fugitive dust.	Aggregate Industries complies with applicable requirements.
AQR Section 42	Open Burning	Applicable – In event Aggregate Industries burns combustible material in any open areas, such burning activity will have been approved by Control Officer in advance. Section 42 is a locally enforceable rule only.	Aggregate Industries will contact the DAQ and obtain approval in advance for applicable burning activities as identified in the rule.	Aggregate Industries complies with applicable requirements.
AQR Section 43	Odors in the Ambient Air	Applicable – An odor occurrence is a violation if the Control Officer is able to detect the odor twice within a period of an hour, if the odor causes a nuisance, and if the detection of odors is separated by at least fifteen minutes. Section 43 is a locally enforceable rule only.	Aggregate Industries will not operate its source in a manner which will cause odors. Aggregate Industries has a natural gas fired source and is not expected to cause odors.	Aggregate Industries complies with applicable requirements.
AQR Section 70.4	Emergency Procedures	Applicable – Aggregate Industries submitted an emergency standby plan for reducing or eliminating air pollutant emissions in the Section 16 Operating Permit Application.	Aggregate Industries submitted an emergency standby plan and received the Section 16 Operating Permit.	Aggregate Industries complies with applicable requirements.

C. Compliance Summary – Federal Air Quality Regulations

Citation	Title	Applicability	Applicable Test Method	Compliance Status
40 CFR Part 51.165	Nonattainment NSR requirements.	Applicable – Aggregate Industries is a major source for a nonattainment pollutant in a nonattainment area.	In the event Aggregate Industries undertakes any modification, NAFB will have to apply proper control technologies as applicable.	Aggregate Industries complies with applicable requirements.
40 CFR 52.21	Prevention of Significant Deterioration (PSD)	Applicable – Aggregate Industries is a major source and is listed as one of the 28 source categories.	BACT analysis, air quality analysis using modeling, and visibility and additional impact analysis performed for original ATC permits.	Aggregate Industries complies with applicable sections as required by PSD regulations.
40 CFR 52.1470	SIP Rules	Applicable – Aggregate Industries is classified as a Title V source, and SIP rules apply.	Applicable monitoring and record keeping of emissions data.	Aggregate Industries is in compliance with applicable state SIP requirements including monitoring and record keeping of emissions data.
40 CFR 60, Subpart A	Standards of Performance for New Stationary Sources (NSPS) – General Provisions	Applicable – Aggregate Industries is an affected facility under the regulations.	Applicable monitoring, recordkeeping, and reporting requirements.	Aggregate Industries complies with applicable requirements.
40 CFR Part 60, Subpart I	New Source Performance Standards – Standards of Performance for Hot Mix Asphalt Facilities.	Applicable – Aggregate Industries is an affected facility under the regulations.	Applicable performance tests requirements.	Aggregate Industries complies with applicable requirements.
40 CFR Part 60, Subpart OOO	New Source Performance Standards – Standards of Performance for Nonmetallic Mineral Processing Plants	Applicable – Aggregate Industries is an affected facility under the regulations.	Applicable monitoring, recordkeeping, and reporting requirements.	Aggregate Industries complies with applicable requirements.
40 CFR Part 60, Subpart IIII	Standards of Performance for New Stationary Sources (NSPS) – Stationary Compression Ignition (CI) Internal Combustion Engines (ICE)	Not Applicable – Aggregate Industries does not operate an applicable unit.	Not Applicable	Not Applicable
40 CFR 60	Appendix A, Method 9 or equivalent, (Opacity)	Applicable – Emissions from stacks are subject to opacity standards.	Opacity determined by EPA Method 9.	Aggregate Industries complies with applicable requirements.

Citation	Title	Applicability	Applicable Test Method	Compliance Status
40 CFR 64	Compliance Assurance Monitoring	Applicable – Aggregate Industries has PM ₁₀ emissions that have an emission standard and use an active control device.	Aggregate Industries monitors pressure differential and opacity to demonstrate compliance with PM ₁₀ emission limitations.	Aggregate Industries complies with applicable requirements.
40 CFR 70	Federally Mandated Operating Permits	Applicable – Aggregate Industries is a major stationary source and under 40 CFR 70 the initial Title V permit application was submitted as required. Renewal applications are due between 6 and 18 months prior to expiration. Revision applications will be submitted within 12 months or commencing operation of any new emission unit. Section 19 is both federally and locally enforceable	Aggregate Industries is required to submit revision applications within 12 months of startup.	Aggregate Industries complies with applicable requirements.
40 CFR 72	Acid Rain Permits Regulation	Not Applicable.	Not Applicable.	Not Applicable.
40 CFR 73	Acid Rain Sulfur Dioxide Allowance System	Not Applicable.	Not Applicable.	Not Applicable.
40 CFR 75	Acid Rain CEMS	Not Applicable.	Not Applicable.	Not Applicable.

D. Summary of Monitoring for Compliance

Table VI-D-1: Summary of Monitoring for Compliance

EU	Process Description	Monitored Pollutants	Applicable Subsection Title	Requirements	Compliance Monitoring
A001, A02a, and A012	Primary Feed (Mountain Top) – Mining, Crushing, and Stacking	PM ₁₀	AQR Sections 12.5	Less than ten percent opacity for periods aggregating more than 3 minutes in any 60-minute period.	Recordkeeping is required for compliance demonstration.
A001a	Primary Feed (Mountain Top) – Blasting	PM ₁₀	AQR Sections 12.5	Limited blasting area and amount of blasting agent.	Recordkeeping is required for compliance demonstration.
A013, A022, A037, and A038c	Secondary Aggregate Plant – Screens, Conveyors, and Transfer Points	PM ₁₀	40 CFR 60, Subpart 000	Less than ten percent opacity for periods aggregating more than 3 minutes in any 60-minute period.	Recordkeeping is required for compliance demonstration.
A016, A018, A025, A026, A029, and A040	Secondary Aggregate Plant – Screens, Conveyors, and Transfer Points with baghouse control	PM ₁₀	40 CFR 60, Subpart 000	Less than seven percent opacity for periods aggregating more than 3 minutes in any 60-minute period.	Recordkeeping is required for compliance demonstration. Daily monitoring of pressure drop across baghouse with the pressure differential gauge. Daily visual observations of baghouse or stack discharge.

EU	Process Description	Monitored Pollutants	Applicable Subsection Title	Requirements	Compliance Monitoring
A015, A020, and A032	Secondary Aggregate Plant – Crushers CR-1, CR-2, and CR-3 with baghouse control	PM ₁₀	40 CFR 60, Subpart 000	Less than seven percent opacity for periods aggregating more than 3 minutes in any 60-minute period.	Recordkeeping is required for compliance demonstration. Daily monitoring of pressure drop across baghouse with the pressure differential gauge. Daily visual observations of baghouse or stack discharge.
A041	Overland Feed System – Conveyors and Transfer Points with baghouse control	PM ₁₀	AQR Sections 12.5	Less than seven percent opacity for periods aggregating more than 3 minutes in any 60-minute period.	Recordkeeping is required for compliance demonstration. Daily monitoring of pressure drop across baghouse with the pressure differential gauge. Daily visual observation of baghouse or stack discharge.
A046	Overland Feed System – Conveyors and Transfer Points	PM ₁₀	AQR Sections 12.5	Less than ten percent opacity for periods aggregating more than 3 minutes in any 60-minute period.	Recordkeeping is required for compliance demonstration.
A080	Wash Plant #1 – Conveyors and Transfer Points	PM ₁₀	40 CFR 60, Subpart 000	Less than ten percent opacity for periods aggregating more than 3 minutes in any 60-minute period.	Recordkeeping is required for compliance demonstration.
A084, A085, A102a, A086, A096a, A096, A096b, A096c, A099, A110a, A110b, A110c, and A114	Wash Plant #1 – Screens, Conveyors, and Transfer Points	PM ₁₀	40 CFR 60, Subpart 000	No visible emissions.	Recordkeeping is required for compliance demonstration.

EU	Process Description	Monitored Pollutants	Applicable Subsection Title	Requirements	Compliance Monitoring
A103a, A106a	Wash Plant #1 – Crusher CR-7a	PM ₁₀	40 CFR 60, Subpart 000	No visible emissions.	Recordkeeping is required for compliance demonstration.
A110 and A111	Wash Plant #1 – Conveyors and Transfer Points	PM ₁₀	40 CFR 60, Subpart 000	Less than ten percent opacity for periods aggregating more than 3 minutes in any 60-minute period.	Recordkeeping is required for compliance demonstration.
A048 and A051	Wash Plant #2 – Conveyors and Transfer Points	PM ₁₀	40 CFR 60, Subpart 000	Less than ten percent opacity for periods aggregating more than 3 minutes in any 60-minute period.	Recordkeeping is required for compliance demonstration.
A055, A056, A059, A061, A063, A065, A069, A071, A117, A120, A120a, A120b, A121, A122, A122b, A075, and A077	Wash Plant #2 – Screens, Conveyors, Transfer Points, and Crushers (normal operations)	PM ₁₀	40 CFR 60, Subpart 000	No visible emissions.	Recordkeeping is required for compliance demonstration.
A117, A122, A120b, A121, A122b	Wash Plant#2 – Screens, Conveyors, and Transfer Points, (alternate operation)	PM ₁₀	40 CFR 60, Subpart 000	Less than seven percent opacity for periods aggregating more than 3 minutes in any 60-minute period.	Recordkeeping is required for compliance demonstration.
A120	Wash Plant#2 – Crusher (alternate operation)	PM ₁₀	40 CFR 60, Subpart 000	Less than twelve percent opacity for periods aggregating more than 3 minutes in any 60-minute period.	Recordkeeping is required for compliance demonstration.
H02, H02a, H05 and H05c	Rip Rap/Miscellaneous Screening System – Screen and Transfer Points	PM ₁₀	AQR Sections 12.5 and 26	Less than ten percent opacity for periods aggregating more than 3 minutes in any 60-minute period.	Recordkeeping is required for compliance demonstration.

EU	Process Description	Monitored Pollutants	Applicable Subsection Title	Requirements	Compliance Monitoring
B001, B006, B008, and B013	West Screen Plant – Screens, Conveyors, and Transfer Points with baghouse control	PM ₁₀	40 CFR 60, Subpart OOO	Less than seven percent opacity for periods aggregating more than 3 minutes in any 60-minute period.	Recordkeeping is required for compliance demonstration. Daily monitoring of pressure drop across baghouse with the pressure differential gauge. Daily visual observations of baghouse or stack discharge.
B033, B043, B016, B027, B020, B038, B047, B011, B045, and B046	West Screen Plant – Screens, Conveyors, and Transfer Points	PM ₁₀	40 CFR 60, Subpart OOO	Less than ten percent opacity for periods aggregating more than 3 minutes in any 60-minute period.	Recordkeeping is required for compliance demonstration.
B035	West Screen Plant – Cone crusher with baghouse control	PM ₁₀	40 CFR 60, Subpart OOO	Less than seven percent opacity for periods aggregating more than 3 minutes in any 60-minute period.	Recordkeeping is required for compliance demonstration. Daily monitoring of pressure drop across baghouse with the pressure differential gauge. Daily visual observations of baghouse or stack discharge.
C001a, A012d, A010, C001, C005a, C003b, C031, C006, C008, C009, C013, C017, C026, C033, and C011	Type 2 Plant – Screens, Conveyors, and Transfer Points	PM ₁₀	40 CFR 60, Subpart OOO	Less than ten percent opacity for periods aggregating more than 3 minutes in any 60-minute period.	Recordkeeping is required for compliance demonstration.
A012b, C002, C012	Type 2 Plant – Crushers CR-10, Jaw Crusher, and HSI Crusher	PM ₁₀	40 CFR 60, Subpart OOO	Less than fifteen percent opacity for periods aggregating more than 3 minutes in any 60-minute period.	Recordkeeping is required for compliance demonstration.

EU	Process Description	Monitored Pollutants	Applicable Subsection Title	Requirements	Compliance Monitoring
D001, D002-6d, D010, D012, D016, D017, D019a - D019c, and D019i	Asphalt System – Loaders, Conveyors, Screening, Asphalt Silo Loading/Unloading	PM ₁₀	40 CFR 60, Subpart I	Less than twenty percent opacity for periods aggregating more than 3 minutes in any 60-minute period. Stack emissions less than 0.04 gr/dscf	Recordkeeping is required for compliance demonstration.
D009	Asphalt System – Conveyor with baghouse control	PM ₁₀	40 CFR 60, Subpart I	Less than seven percent opacity for periods aggregating more than 3 minutes in any 60-minute period.	Recordkeeping is required for compliance demonstration. Daily monitoring of pressure drop across baghouse with the pressure differential gauge. Daily visual observations of baghouse or stack discharge.
D014	Asphalt System – Asphalt Astec Drum Mixer with baghouse control	PM ₁₀ , NO _x , and CO	40 CFR 60, Subpart I	Less than seven percent opacity for periods aggregating more than 3 minutes in any 60-minute period. Stack emissions less than 0.04 gr/dscf.	Recordkeeping is required for compliance demonstration. Daily monitoring of pressure drop across baghouse with the pressure differential gauge. Daily visual observations of baghouse or stack discharge.
D020	Asphalt System – Baghouse, Silo, and Screw Conveyor	PM ₁₀	40 CFR 60, Subpart I	No visible emissions. Stack emissions less than 0.04 gr/dscf.	Recordkeeping is required for compliance demonstration.

EU	Process Description	Monitored Pollutants	Applicable Subsection Title	Requirements	Compliance Monitoring
D026 – D028	Asphalt System – Diesel-Powered Hot Oil Heaters 16, 17, and 17a	PM ₁₀ , CO, NO _x , SO ₂ , VOC, HAPs	AQR Section 26	Less than twenty percent opacity for periods aggregating more than 6 minutes in any 60-minute period. Low Sulfur (0.05 percent or less by weight) diesel fuel.	Recordkeeping is required for compliance demonstration.
RS01, RS03, and RS05	Road Runner Portable Screen Plant – Screen, Conveyors, and Transfer Points	PM ₁₀	AQR Sections 12 19, and 26	Less than ten percent opacity for periods aggregating more than 3 minutes in any 60-minute period.	Recordkeeping is required for compliance demonstration.
BS01, D013d, D013a, and D013e	Blending System – Conveyors, Transfer Points, and Lime Silo	PM ₁₀	AQR Sections 12 19, and 26	Less than ten percent opacity for periods aggregating more than 3 minutes in any 60-minute period.	Recordkeeping is required for compliance demonstration.
F001, F004, F005, F008, F014a, and F018	Southern Nevada Ready Mix Plant – Conveyors and Transfer Points,	PM ₁₀	AQR Sections 12 19, and 26	Less than ten percent opacity for periods aggregating more than 3 minutes in any 60-minute period.	Recordkeeping is required for compliance demonstration.
F015, F017, and F017a	Southern Nevada Ready Mix Plant – Silos	PM ₁₀	AQR Sections 12 19, and 26	Less than seven percent opacity for periods aggregating more than 3 minutes in any 60-minute period.	Recordkeeping is required for compliance demonstration.
F023	Southern Nevada Ready Mix Plant – Water Heater	PM ₁₀	AQR Sections 12 and 19	Less than twenty percent opacity for periods aggregating more than 3 minutes in any 60-minute period.	Recording is required for compliance demonstration.

EU	Process Description	Monitored Pollutants	Applicable Subsection Title	Requirements	Compliance Monitoring
F025, F026, F027, F030, and F031	Con-E-Co Concrete Batch Plant – Conveyors and Transfer Points,	PM ₁₀	AQR Sections 12 and 26	Less than 20 percent opacity for periods aggregating more than 3 minutes in any 60-minute period.	Recordkeeping is required for compliance demonstration.
F028 and F029	Con-E-Co Concrete Batch Plant – Silos	PM ₁₀	AQR Sections 12 and 26	Less than seven percent opacity for periods aggregating more than 3 minutes in any 60-minute period.	Recordkeeping is required for compliance demonstration.
H06	Materials Haul Road	PM ₁₀	AQR Sections 12, 19, and 26	Less than twenty percent opacity for periods aggregating more than 3 minutes in any 60-minute period. Treated with chemical or organic dust suppressant or watered.	Recording is required for compliance demonstration.
G01	Materials Disturbed Surfaces	PM ₁₀	AQR Sections 12, 19, and 26	Less than twenty percent opacity for periods aggregating more than 3 minutes in any 60-minute period.	Recording is required for compliance demonstration.
CS01 and CS02	Cyclone Sand Loadout	PM ₁₀	AQR Sections 12, 19, and 26	Less than twenty percent opacity for periods aggregating more than 3 minutes in any 60-minute period.	Recording is required for compliance demonstration.
MM01, MM03, MM04, and MM05	Precast Management Mobile Mini Mixer System – Transfer Points	PM ₁₀	AQR Sections 12, 19, and 26	Less than twelve percent opacity for periods aggregating more than 3 minutes in any 60-minute period.	Recordkeeping is required for compliance demonstration.

EU	Process Description	Monitored Pollutants	Applicable Subsection Title	Requirements	Compliance Monitoring
STM01, STM06, STM08a	CalPortland Plant One – Transfer Points	PM ₁₀	AQR Sections 12, 19, and 26	Less than ten percent opacity for periods aggregating more than 3 minutes in any 60-minute period.	Recordkeeping is required for compliance demonstration.
STM13, STM13A, STM14, STM15, STM16, and STM18	CalPortland Plant One – Silos and Truck Loading	PM ₁₀	AQR Sections 12, 19, and 26	Less than seven percent opacity for periods aggregating more than 3 minutes in any 60-minute period.	Recordkeeping is required for compliance demonstration.
STM19	CalPortland Plant One – Storage Piles	PM ₁₀	AQR Sections 12, 19, and 26	Less than twenty percent opacity for periods aggregating more than 3 minutes in any 60-minute period.	Recording is required for compliance demonstration.
STM44, STM43, STM55	CalPortland Plant Three – Transfer Points	PM ₁₀	AQR Sections 12, 19, and 26	Maintaining 5.0 percent moisture content (96.6 percent control efficiency). Less than ten percent opacity for periods aggregating more than 3 minutes in any 60-minute period.	Weekly moisture testing with ASTM Method C 566-97. Recordkeeping is required for compliance demonstration.
STM58, STM59, STM60, STM61, STM63, STM64, and STM65	CalPortland Plant Three – Silos and Truck Loading	PM ₁₀	AQR Sections 12, 19, and 26	Less than seven percent opacity for periods aggregating more than 3 minutes in any 60-minute period.	Recordkeeping is required for compliance demonstration.
STM66	CalPortland Plant Three – Disturbed Surfaces	PM ₁₀	AQR Sections 12, 19, and 26	Less than twenty percent opacity for periods aggregating more than 3 minutes in any 60-minute period.	Recording is required for compliance demonstration.

EU	Process Description	Monitored Pollutants	Applicable Subsection Title	Requirements	Compliance Monitoring
AP22	Wet-Cast Plant – Conveyors and Transfer Points	PM ₁₀	AQR Sections 12, 19, and 26	Less than fifteen percent opacity for periods aggregating more than 3 minutes in any 60-minute period.	Recordkeeping is required for compliance demonstration.
AP27, AP29, AP40a, AP40b, and AP48	Wet-Cast Plant – Mixer, Conveyors and Transfer Points	PM ₁₀	AQR Sections 12, 19, and 26	Less than seven percent opacity for periods aggregating more than 3 minutes in any 60-minute period.	Recordkeeping is required for compliance demonstration.
AP31	Wet-Cast Plant – Disturbed Surfaces	PM ₁₀	AQR Sections 12, 19, and 26	Less than twenty percent opacity for periods aggregating more than 3 minutes in any 60-minute period.	Recording is required for compliance demonstration.
A123, MM06, MM08, STM39, STM68, GW01, and RS10	Diesel Generators	PM ₁₀ , CO, NO _x , SO ₂ , VOC, HAPs	AQR Sections 12, 19, and 26	Less than twenty percent opacity for periods aggregating more than 6 minutes in any 60-minute period. Low Sulfur (0.05 percent or less by weight) diesel fuel. Engines shall be turbocharged and aftercooled (A123, STM39 and STM68).	Recordkeeping is required for compliance demonstration.

E. Permit Shield

With a supplemental application submitted on February 13, 2012, the source requested a permit shield for the following applicable requirements. Compliance with the terms contained in the permit shall be deemed compliance with the following applicable requirements in effect on the date of permit issuance:

Permit Issuance: November 30, 2012

Table VI-E-1: Applicable Requirements Related to Permit Shield

Citation	Title
40 CFR 60 Subpart IIII	NSPS – Stationary Compression Ignition Internal Combustion Engines
40 CFR 63 Subpart ZZZZ	NESHAP – Stationary Reciprocating Internal Combustion Engines
40 CFR 60 Subpart OOO	NSPS – Standards of Performance for Nonmetallic Mineral Processing Plants
40 CFR 60 Subpart I	NSPS – Standards of Performance for Hot Mix Asphalt Facilities
40 CFR 64.2	Compliance Assurance Monitoring
40 CFR 98 Subpart C	Mandatory Greenhouse Gas Reporting – General Stationary Fuel Combustion Sources
AQR Section 26.1.1	Emission of Visible Air Contaminants
AQR Section 45.1	Idling of Diesel Powered Motor Vehicles

The source also requested a permit shield for AQR 12.4.3.1(e) and 12.5.2.6(d), which was not given as these regulations are the basis for permit conditions and do not contain the specific permit limit the source was requesting shielding for. Also, these regulations will apply to new and modified emission units with each permitting action.

Table VI-E-2: Streamlining Demonstration for Permit Shield

EU	Regulation (40 CFR)	Regulatory Standard	Permit Limit	Value Comparison (in Units of the Permit Limit)			Averaging Period Comparison			Streamlining Statement for Shielding Purposes
				Standard Value	Permit Limit Value	Is Permit Limit Equal or More Stringent?	Standard Averaging Period	Permit Limit Averaging Period	Is Permit Limit Equal or More Stringent?	
D009, D014	60. (Subpart I)	≤20% (Opacity)	≤20%	≤20%	≤20%	Yes	6 minute	6 minute	Yes	The permit limit is equally as stringent as the standard
D009	60. (Subpart I)	0.04 gr/dscm	0.04 gr/dscm	0.04 gr/dscm	0.04 gr/dscm	Yes	6 minute	6 minute	Yes	The permit limit is equally as stringent as the standard

EU	Regulation (40 CFR)	Regulatory Standard	Permit Limit	Value Comparison (in Units of the Permit Limit)			Averaging Period Comparison			Streamlining Statement for Shielding Purposes
				Standard Value	Permit Limit Value	Is Permit Limit Equal or More Stringent?	Standard Averaging Period	Permit Limit Averaging Period	Is Permit Limit Equal or More Stringent?	
A038c, A106a, A120a, A120b, A121, A122, A122b, H05c, H02, H02a, H05, B016, B038, B047, B045, B046, A010, C009, C009, C026, RS01, RS03, BS01, D013d, D013e, CS01	60.672 (Subpart 000)	≤7% (Opacity)	≤7%	≤7%	≤7%	Yes	6 minute	6 minute	Yes	The permit limit is equally as stringent as the standard
A015, A016, A018, A020, A025, A026, A029, A032, A040, B001, B006, B008, B013, B035										
A103a, A106a, A120	60.672 (Subpart 000)	≤12% (Opacity)	≤12%	≤12%	≤12%	Yes	6 minute	6 minute	Yes	The permit limit is equally as stringent as the standard
A015, A016, A018, A020, A025, A026, A029, A032, A040, B001, B006, B008, B013, B035	60.672 (Subpart 000)	0.05 gr/dscm	0.05 gr/dscm	0.05 gr/dscm	0.05 gr/dscm	Yes	6 minute	6 minute	Yes	The permit limit is equally as stringent as the standard

EU	Regulation (40 CFR)	Regulatory Standard	Permit Limit	Value Comparison (in Units of the Permit Limit)			Averaging Period Comparison			Streamlining Statement for Shielding Purposes
				Standard Value	Permit Limit Value	Is Permit Limit Equal or More Stringent?	Standard Averaging Period	Permit Limit Averaging Period	Is Permit Limit Equal or More Stringent?	
A02a, A015, A020, A032, A059, B035, A012b, C002, C012	60.672 (Subpart OOO)	≤15% (Opacity)	≤15%	≤15%	≤15%	Yes	6 minute	6 minute	Yes	The permit limit is equally as stringent as the standard
A013, A015, A016, A018, A020, A022, A025, A026, A029, A032, A037, A040, A041, A046, A080, A11A, A048, A051, A059, A061, B001, B006, B008, B013, B033, B035, B043, B027, B020, B038, B011, A012d, A010, C005A, C031, C006, C008, C009, C013, C017, C026, C011	60.672 (Subpart OOO)	≤10% (Opacity)	≤10%	≤10%	≤10%	Yes	6 minute	6 minute	Yes	The permit limit is equally as stringent as the standard
A123, MM06, MM08, STM39, STM68, GW01, and RS10	ZZZZ	Various maintenance requirements		N/A		Yes	Compliance demonstrated by keeping records of maintenance and engine manufacturer's certified emissions data		Yes	The permit requirements and federal standards are identical

EU	Regulation (40 CFR)	Regulatory Standard	Permit Limit	Value Comparison (in Units of the Permit Limit)			Averaging Period Comparison			Streamlining Statement for Shielding Purposes
				Standard Value	Permit Limit Value	Is Permit Limit Equal or More Stringent?	Standard Averaging Period	Permit Limit Averaging Period	Is Permit Limit Equal or More Stringent?	
	63.11116(a) (CCCCCC)	<ol style="list-style-type: none"> 1. Cover open gasoline containers 2. Storage tank fill pipes seal with gasket 3. Minimize gasoline sent to open waste collection systems 4. Minimize spills and clean up expeditiously 5. Submerged fill pipe maximum 6" from bottom of tank. 		N/A		Yes		Compliance is demonstrated by maintaining records and submitting reports as specified in 63.11125 and 63.11126	Yes	The permit requirements and federal standards are identical

VII. ADMINISTRATIVE REQUIREMENTS

AQR Section 12.5 requires that DAQ identify the original authority for each term or condition in the Part 70 Operating Permit. Such reference of origin or citation is denoted by [italic text in brackets] after each Part 70 Permit condition.

DAQ proposes to issue the Part 70 Operating Permit conditions on the following basis:

Legal:

On December 5, 2001, in Federal Register Volume 66, Number 234 FR30097 the EPA fully approved the Title V Operating Permit Program submitted for the purpose of complying with the Title V requirements of the 1990 Clean Air Act Amendments and implementing Part 70 of Title 40 Code of Federal Regulations.

Factual:

Aggregate Industries has supplied all the necessary information for DAQ to draft Part 70 Operating Permit conditions encompassing all applicable requirements and corresponding compliance.

Conclusion:

DAQ has determined that Aggregate Industries will continue to determine compliance through the use of performance testing, quarterly reporting, and daily recordkeeping, coupled with annual certifications of compliance. DAQ proceeds with the preliminary decision that a Part 70 Operating Permit should be issued as drafted to Aggregate Industries for a period not to exceed five (5) years.

VII. ATTACHMENTS

Permit Shield

Shielded Emission Units	Applicable Requirement	Regulatory Requirements and Basis
A123, STM39, GW01, STM68, RS10, MM06, and MM08	40 CFR Part 60 Subpart IIII	As specified in 40 CFR Part 60.420(2) this regulation applies to stationary diesel engines manufactured after April 1, 2006 or stationary diesel engines modified /reconstructed after July 11, 2005. The subject units were manufactured prior to this date and have not undergone reconstruction or modification <u>therefore this rule does not apply</u> . Further, irrespective of the manufacture date, all such engines are portable. An engine that is portable or transportable, meaning designed to be and capable of being carried or moved from one location to another. An indication of transportability include, but are not limited to, wheels, skids, carrying handles, dolly, trailer or platform. This shield shall become void if subject units are modified or reconstructed.
A123, STM39, GW01, STM68, RS10, and MM06 and MM08	40 CFR Part 60 Subpart ZZZZ	This regulation applies to Stationary RICE engines at Area or Major Sources of HAPS. The subject site is an Area source of HAPs The rule applies to such engines constructed before June 12, 2006 which is the case for each of the subject units. However, each of the engines meets the definition of a mobile / non road engine as defined in 1068.30. Under 40 CFR 1068.30 an engine is portable or transportable, meaning designed to be and capable of being carried or moved from one location to another. An indication of transportability include, but are not limited to, wheels, skids, carrying handles, dolly, trailer or platform. If any of the subject units cease to meet the criteria of portability (e.g. being mounted on a towable trailer), this shield shall become void.
Screens, Belts, Transfer Points, Storage Bins including A013, A015, A06, A018, A020, A022, A025, A026, A029, A032,	40 CFR Subpart OOO - Screens, conveyors, and transfer points which commenced construction after <u>August 31, 1983 but before</u>	The owner or operator must meet the following fugitive emissions limit for grinding mills, screening operations, bucket elevators, transfer points on belt conveyors, bagging operations, storage bins, enclosed truck or railcar loading stations or from any other affected facility (as defined in

Shielded Emission Units	Applicable Requirement	Regulatory Requirements and Basis
<p>A037, A040, A041, A080, A111, A048, A051, A059, A061, B001, B08, B013, B033, B035, B043, B027, B020, B038, B011, A12d, A010, C005a, C031, C006, C008, C009, C013, C017, C026, and C011</p>	<p><u>April 22, 2008.</u> 40 CFR 60.672 *** Must have crusher in process line to be subject to this Subpart. *** Truck Dumping operations, Hopper Loading and Stacking operations are exempt from Subpart [60.672&60.670] *** Wet process</p>	<p>§§60.670 and 60.671) to an average opacity of 10 percent as determined using EPA Reference Method 9. [40 CFR 60.670 Table 3] When determining compliance with the fugitive emissions standard for any affected facility described under §60.672(b) or §60.672(e)(1) of this subpart, the duration of the Method 9 observations must meet procedures stated on 60.675 and must be 30 minutes (five 6-minute averages). [40 CFR 60.675(3)] For those units which have demonstrated initial opacity compliance, the duration of repeat annual Method 9 testing may be reduced to 6 minutes as outlined. [60.11 Appendix A-4] Monitoring and Record Keeping Requirement as outlined in 60.7 and 60.674 shall also apply. Except as provided in 60.670(d) this permit shield shall become void if subject units are reconstructed as defined in 60.673. The 40 CFR 60.670 opacity limits are more stringent than AQR Section 26.1 opacity requirements which limit all sources to 20% based on a 6 minute average. Compliance with AQR Section 26 will therefore be met or subsumed by meeting the Subpart OOO opacity, monitoring, record keeping, and testing requirements. AQR Section 41.1 fugitive dust rules do not apply to any of the subject emission units.</p>
<p>Crushers A02a, A015, A020, A032, A059, B035, A12b, C002, C012</p>	<p>40 CFR Subpart OOO NSPS – Crushers which commenced construction after <u>August 31, 1983</u> but before <u>April 22, 2008.</u></p>	<p>The owner or operator must meet the following fugitive emissions limit for crushers (as defined in §§60.670 and 60.671) to an average opacity of 15 percent as determined using EPA Reference Method 9. [40 CFR 60.670 Table 3]</p>

Shielded Emission Units	Applicable Requirement	Regulatory Requirements and Basis
	<p>40 CFR 60.672 *** Truck Dumping operations, Hopper Loading and Stacking operations are exempt from Subpart [60.672&60.670] *** The opacity limits do not apply to crushers where a capture system is used except for any fugitive uncollected portion of emissions from such units.</p>	<p>When determining compliance with the fugitive emissions standard for any affected facility described under §60.672(b) or §60.672(e)(1) of this subpart, the duration of the Method 9 observations must meet procedures stated on 60.675 and must be 30 minutes (five 6-minute averages). <i>[40 CFR 60.675(3)]</i> For those units which have demonstrated initial opacity compliance, the duration of repeat annual Method 9 testing may be reduced to 6 minutes as outlined. <i>[60.11 Appendix A-4]</i></p> <p>Monitoring and Record Keeping Requirement as outlined in 60.7 and 60.674 shall also apply.</p> <p>Except as provided in 60.670(d) this permit shield shall become void if subject units are reconstructed as defined in 60.673.</p> <p>The 40 CFR 60.670 opacity limits are more stringent than AQR Section 26.1 opacity requirements which limit all sources to 20% based on a 6 minute average. Compliance with AQR Section 26 will therefore be met or subsumed by meeting the Subpart OOO opacity, monitoring, record keeping, and testing requirements.</p> <p>AQR Section 41.1 fugitive dust rules do not apply to any of the subject emission units.</p>
<p>Screens, Belts, Transfer Points, Storage Bins including A038C, A103a, A106a, A120a, A120b, A121, A122, A122b, H05c, H02, H02a, H05 B016, B038, B047, B045, B046,</p>	<p>40 CFR Subpart OOO NSPS – Crushers which commenced construction after <u>April 22, 2008</u>. 40 CFR 60.672 *** Must have crusher in process line to be subject to this Subpart.</p>	<p>The owner or operator must meet the following fugitive emissions limit for crushers (as defined in §§60.670 and 60.671) to an average opacity of 7 percent as determined using EPA Reference Method 9. <i>[40 CFR 60.670 Table 3]</i> When determining compliance with the fugitive emissions standard for any affected facility described under §60.672(b) or §60.672(e)(1) of this subpart, the duration of the Method 9</p>

Shielded Emission Units	Applicable Requirement	Regulatory Requirements and Basis
<p>A010, C009,C026, RS01, RS03, BS01, D013d, D013e, CS01</p>	<p>*** Truck Dumping operations, Hopper Loading and Stacking operations are exempt from Subpart [60.672&60.670]</p>	<p>observations must meet procedures stated on 60.675 and must be 30 minutes (five 6-minute averages). <i>[40 CFR 60.675(3)]</i> For those units which have demonstrated initial opacity compliance, the duration of repeat annual Method 9 testing may be reduced to 6 minutes as outlined. <i>[60.11 Appendix A-4]</i></p> <p>Monitoring and Record Keeping Requirement as outlined in 60.7 and 60.674 shall also apply.</p> <p>Except as provided in 60.670(d) this permit shield shall become void if subject units are reconstructed as defined in 60.673.</p> <p>The 40 CFR 60.670 opacity limits are more stringent than AQR Section 26.1 opacity requirements which limit all sources to 20% based on a 6 minute average. Compliance with AQR Section 26 will therefore be met or subsumed by meeting the Subpart OOO opacity, monitoring, record keeping, and testing requirements.</p> <p>AQR Section 41.1 fugitive dust rules do not apply to any of the subject emission units.</p>
<p>Crushers A103a, A106a, A120</p>	<p>40 CFR Subpart OOO NSPS – Crushers which commenced construction after <u>April 22, 2008</u>. 40 CFR 60.672 *** The opacity limits do not apply to crushers where a capture system is used except for any fugitive uncollected portion of emissions from such</p>	<p>The owner or operator must meet the following fugitive emissions limit for crushers (as defined in §§60.670 and 60.671) to an average opacity of 12 percent as determined using EPA Reference Method 9. <i>[40 CFR 60.670 Table 3]</i> When determining compliance with the fugitive emissions standard for any affected facility described under §60.672(b) or §60.672(e)(1) of this subpart, the duration of the Method 9 observations must meet procedures stated on 60.675 and must be 30 minutes (five 6-minute averages).</p>

Shielded Emission Units	Applicable Requirement	Regulatory Requirements and Basis
	units.	<p><i>[40 CFR 60.675(3)]</i> For those units which have demonstrated initial opacity compliance, the duration of repeat annual Method 9 testing may be reduced to 6 minutes as outlined. <i>[60.11 Appendix A-4]</i></p> <p>Monitoring and Record Keeping Requirement as outlined in 60.7 and 60.674 shall also apply.</p> <p>Except as provided in 60.670(d) this permit shield shall become void if subject units are reconstructed as defined in 60.673.</p> <p>The 40 CFR 60.670 opacity limits are more stringent than AQR Section 26.1 opacity requirements which limit all sources to 20% based on a 6 minute average. Compliance with AQR Section 26 will therefore be met or subsumed by meeting the Subpart OOO opacity, monitoring, record keeping, and testing requirements.</p> <p>AQR Section 41.1 fugitive dust rules do not apply to any of the subject emission units.</p>
<p>Subpart OOO Baghouse (capture systems) DC1 venting A015, A016, A020, A025, A026, A029, A032, A040 and LMC West Baghouses DC3 and DC3 venting A041, and DC2 venting B001, B006, B008, B013, and B035</p>	<p>40 CFR Subpart OOO NSPS – Baghouses which commenced construction after <u>August 31, 1983 but before April 22, 2008.</u> 40 CFR 60.672 *** Must have crusher in process line to be subject to this Subpart. *** Truck Dumping operations, Hopper Loading and Stacking operations are exempt from Subpart [60.672&60.670]</p>	<p>The owner or operator must meet the following emissions limits for stack emission for affected facilities with baghouses (as defined in §§60.670 and 60.671):</p> <ol style="list-style-type: none"> 1) Average opacity of 7 percent as determined using EPA Reference Method 9 <i>[40 CFR 60.670 Table 3]</i> 2) Stack grain loading limit of 0.05g/DSCM or 0.022 gr/DSCF <p>When determining compliance with these emission limits the testing requirements stated in 60.8, 60.11 and 60.675(b) shall apply.</p> <p>Testing shall be repeated every 5 years prior to the</p>

Shielded Emission Units	Applicable Requirement	Regulatory Requirements and Basis
		<p>anniversary date of the last approved 5 year test. [AQR 12.5.2.6(d)]</p> <p>For those units which have demonstrated initial opacity compliance, the duration of repeat annual Method 9 testing may be reduced to 6 minutes as outlined. [60.11 Appendix A-4]</p> <p>Monitoring and Record Keeping Requirement as outlined in 60.7 and 60.674 shall also apply as applicable.</p> <p>Except as provided in 60.670(d) this permit shield shall become void if subject units are reconstructed as defined in 60.673.</p> <p>The 40 CFR 60.670 opacity limits are more stringent than AQR Section 26.1 opacity requirements which limit all sources to 20% based on a 6 minute average. Compliance with AQR Section 26 will therefore be met or subsumed by meeting the Subpart OOO opacity, monitoring, record keeping, and testing requirements.</p> <p>AQR Section 41.1 fugitive dust rules do not apply to any of the subject emission units.</p>
<p>Asphalt Plant Cold Feed system including D001-D010 inclusive, D020 and Baghouse House Venting Drum Mixer D014</p>	<p>40 CFR Subpart I NSPS Standards of Performance for Hot Mix Asphalt Facilities and AQR 12.5.2.6(d)</p> <p>***D016-D019i Silo Loading and Unloading are not Subpart I affected facilities</p>	<p>The subject Emission Units are affected facilities as defined in 40 CFR 60.90. The following particulate emission limits as stated in 60.92 apply to these units.</p> <ol style="list-style-type: none"> 1) Stack PM emission shall be limited 0.04 gr/DSCF as determined using the test procedures stated in 60.63 (Method 5) 2) Opacity shall be limited to 20% as determined using EPA Reference Method 9. <p>Stack Particulate Testing shall be repeated every 5 years prior</p>

Shielded Emission Units	Applicable Requirement	Regulatory Requirements and Basis
		<p>to the anniversary date of the last approved 5 year test. [AQR 12.5.2.6(d)]</p> <p>Annual Method 9 testing may be reduced to 6 minutes as outlined after the Initial Performance Testing is completed. [60.11 Appendix A-4]</p> <p>Compliance with the NOx limit per Method 7E and CO limits per Method as stated in this permit shall be tested every 2 years prior to the anniversary date of the last approved test 2 year test. [AQR 12.5.2.6(d)]</p> <p>Except as provided in 60.670(d) this permit shield shall become void if subject units are reconstructed as defined in 60.673.</p> <p>The 40 CFR 60.92 opacity limit is equally stringent to AQR Section 26.1 opacity requirements which limit all sources to 20% based on a 6 minute average. Compliance with AQR Section 26 will therefore be met or subsumed by meeting the Subpart I opacity requirements.</p> <p>AQR Section 41.1 fugitive dust rules do not apply to any of the subject emission units.</p>
<p>Dry Process Units Not Subject to federal NSPS (Subpart I or Subpart OOO) including A001 (mining), A12 (stacker), A40 (stacker), A038c (stacker), A041 (stacker), A046, A110 (loading), B016 (Stacker 2), B038 (stacker 1), B045 (stacker), B046 (loading refeed), C003b (stackers</p>	<p>AQR Section 26.1.1 DAQ general opacity rule.</p>	<p>Unless specified elsewhere, the Permittee shall not discharge into the atmosphere from any of the subject emission units any air contaminant in excess of an average of 20 percent opacity for a period of more than six consecutive minutes. [AQR26.1.1]</p> <p>This permit shield shall cease to apply to stackers if they are used in alternate scenarios as belt conveyors. In this case, a Subpart OOO 7% limit shall apply, or to emission units that are modified or reconstructed as outlined in 60.673.</p>

Shielded Emission Units	Applicable Requirement	Regulatory Requirements and Basis
22,15), C031 (stacker), C017 (stacker), C026 (stacker), C033 (stackers 18 & 19), D016 through D019i, D026 through D028, CS02 (loadout), Gensets A123,STM39, GW01, and RS10, Ready Mix Units F001 through F031, MM01 through MM06, MM08, STM01 through STM18, STM44 through STM65, STM68, and AP22 through AP48		<p>The Permittee shall not discharge from any source whatsoever quantities of air contaminants or other material which cause a nuisance. <i>[AQR 40.1]</i></p> <p>AQR Section 41.1 fugitive dust rules do not apply to any of the subject emission units.</p>
Disturbed Surfaces/Storage Piles (G01), and Haul Roads (H06 and D25)	AQR 26.1	<p>Unless specified elsewhere, the Permittee shall not discharge into the atmosphere from any of the subject emission units any air contaminant in excess of an average of 20 percent opacity for a period of more than six consecutive minutes. <i>[AQR26.1.1]</i></p> <p>The Permittee shall sweep and or rinse roads accessing or located on the site as necessary to remove observable deposits and so as not to exhibit and average opacity greater than 20 percent. <i>[12.4.3.1(e)]</i></p> <p>The permit shall not allow controllable fugitive dust to become Airborne without taking reasonable precautions. <i>[12.4.3.1(e)]</i></p> <p>The Permittee shall not cause or allow the discharge of controllable fugitive dust in excess of 100 yards from the point of origin or beyond the property on which the emissions originate, whichever is less. <i>[12.4.3.1(e)]</i></p> <p>Fugitive dust emissions from any disturbed area shall be controlled by applying paving, gravel, dust palliative, or</p>

Shielded Emission Units	Applicable Requirement	Regulatory Requirements and Basis
		<p>watering to form crust. [12.4.3.1(e)]</p> <p>Fugitive dust emissions from any unpaved parking lot shall be controlled by applying paving, dust palliative, or alternative approved by the control officer regardless of the number of days of use. [12.4.3.1(e)]</p> <p>Where a stationary source, or a portion thereof, is to be closed or idled for a period of 30 days or more, long-term stabilization of disturbed areas shall be implemented within 10 days following the cessation of active operations. Long-term stabilization includes, but is not limited to one or more of the following: applying water to form a crust, applying palliatives, applying gravel, paving, denying unauthorized access or other effective control measure to prevent fugitive dust from becoming airborne. [AQR 12.4.3.1(e)]</p> <p>The Permittee shall not discharge from any source whatsoever quantities of air contaminants or other material which cause a nuisance. [AQR 40.1]</p>
<p>Compliance Assurance Monitoring (CAM) EU D014 Baghouse.</p>	<p>40 CFR 64.2 <i>Based on CAM applicability criteria, the Sloan Quarry is subject to the CAM rule. The baghouse venting the drum mixer is a control device as defined, and the asphalt plant is subject to an emission limit under 40 CFR Part 60 Subpart I. While the controlled PTE of the drum mixer is only 4 TPY, the uncontrolled emissions would be greater than 70 TPY (4 / .01=400), thus CAM will be triggered.</i></p>	<p>In order to comply the Compliance Assurance Monitoring requirement stated in 64.2, the Permittee will be required to meet the following:</p> <p>The Permittee will operate the subject control device in accordance with an approved CAM plan. [40 CFR 64.2] which will be submitted to the control officer for review. At a minimum the CAM plan shall require:</p> <p>Daily magnehelic gauge monitoring and recording of the baghouse pressure drop. [40 CFR 64.2]</p> <p>Daily visible emission inspection of stack discharges. If emissions are present a certified Method 9 observation shall</p>

Shielded Emission Units	Applicable Requirement	Regulatory Requirements and Basis
		<p>be completed. Annual Method 9 testing. [40 CFR 64.2]</p> <p>Operation and Maintenance in accordance with an SOP manual provided by the manufacturer. All specified inspections and maintenance shall be documented on a field baghouse inspection log. [40 CFR 64.2]</p> <p>Hourly readings of oxygen sensor installed to optimize combustion process. [40 CFR 64.2]</p>
<p>Green House Gas Reporting Rule 40 CFR Part 98 Subpart C General Combustion Sources</p>	<p>Mandatory Reporting of Greenhouse Gases Rule (74 FR 56260) and 40 CFR Part 98</p>	<p>On October 30, 2009, the U.S. Environmental Protection Agency (EPA) published a rule for the mandatory reporting of greenhouse gases (GHG) from large GHG emissions sources in the United States. Implementation of 40 CFR Part 98 is referred to as the Greenhouse Gas Reporting Program (GHGRP). The greenhouse gas reporting rule applies to large stationary combustion sources which emit 25,000 metric tons or more of carbon dioxide (CO₂) equivalent per year from permitted non-mobile equipment.</p> <p>Based on current Part 70 operation limits on asphalt production, and hour limits on diesel generators and other permitted fuel burning units the current PTE for greenhouse gas emission from the subject source have been computed to be well below the subject 25000 metric ton reporting threshold at 12,850 metric tons. As such the requirements of this subpart are currently not applicable.</p> <p>Should any applicable fuel burning emission unit by modified this shield shall become void, until the requirements of the CHG rule are re-evaluated.</p>
<p>Idling Of Diesel Powered Equipment</p>	<p>Section 45.1 AQR</p>	<p>Except as otherwise provided in this subsection, a person shall not idle the engine</p>

Shielded Emission Units	Applicable Requirement	Regulatory Requirements and Basis
		of a diesel truck or a diesel bus for more than 15 consecutive minutes. [AQR 45.1]
PM10 Postconstruction monitoring activities	Postconstruction monitoring activities shall be subject to DAQ Ambient Monitoring Policy, the EPA interim document for continuous PM10 monitoring and the relevant provisions of 40 CFR, Parts 50, 51, 52, 53 and 58. [AQR 12.5.2.6(d)]	<p>The permittee is required to maintain a PM10 Beta Attenuation Monitor onsite at a location which has been approved by the control officer. [AQR 12.5.2.6(d)]</p> <p>Postconstruction monitoring activities shall be subject to DAQ Ambient Monitoring Policy, the EPA interim document for continuous PM10 monitoring and the relevant provisions of 40 CFR, Parts 50, 51, 52, 53 and 58. [AQR 12.5.2.6(d)]</p>