



MICHELLE LUJAN GRISHAM
GOVERNOR

JAMES C. KENNEY
CABINET SECRETARY

AIR QUALITY BUREAU
NEW SOURCE REVIEW PERMIT
Issued under 20.2.72 NMAC

Certified Mail No: 7016 2070 0000 6771 3274

Return Receipt Requested

NSR Permit No: 0298-M11 Markup-8/29/2022
Facility Name: Chino Mine

Permittee Name: Freeport-McMoRan Chino Mines Co
Mailing Address: PO Box 10, Bayard, NM 88023

TEMPO/IDEA ID No: 526 - PRN20220001
AIRS No: 350170001

Permitting Action: Significant Permit Revision
Source Classification: Major – Title V and PSD Minor

Facility UTM Location: 774,500 m E, 3,631,100 m N, Zone 12,
Datum: WGS84

County: Grant

Air Quality Bureau Contact Joseph Kimbrell
Main AQB Phone No. (505) 476-4300

Elizabeth Bisbey-Kuehn
Bureau Chief
Air Quality Bureau

Date

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PART A FACILITY SPECIFIC REQUIREMENTS**A100 Introduction**

- A. This permit, NSR 0298M11, supersedes all portions of Air Quality Permit NSR 0298M10, issued April 21, 2020, except the portion requiring compliance tests. Compliance test conditions from previous permits, if not completed, are still in effect, in addition to compliance test requirements contained in this permit.

A101 Permit Duration (expiration)

- A. The term of this permit is permanent unless withdrawn or cancelled by the Department.

A102 Facility: Description

- A. The Chino Mine is located near Bayard, New Mexico, within Grant County. The mine produces copper cathode using the Solvent Extraction - Electro-winning (SX/EW) process in the SX/EW Plant and produces copper concentrate using a wet flotation process in the Ivanhoe Concentrator. Mine operations associated with the Santa Rita Pit consist of blasting, loading, hauling, placement of waste rock and leach rock on stockpiles, and transport of concentrator ore to the Primary Crusher. Concentrate slurry from the Ivanhoe Concentrator travels approximately seven miles by pipeline to the Filter and Blending Plants near Hurley, New Mexico where the slurry is dewatered and loaded into rail cars and trucks for transport to off-site smelters for further processing. Ancillary operations at Chino include a portable screening plant operated in the pit area and operation of the Chino Power Plant near Hurley. The Chino Power Plant produces electric power on an as-needed basis from one (1) Westinghouse natural gas-fired turbine and one (1) Nooter/Ericksen natural gas-fired Heat Recovery Steam Generator (HRSG) duct burner. The Cobre Mine is located approximately two miles north of the Chino Mine. The Cobre Mine property is contiguous and adjacent to the Chino Mine property. Mining at the Cobre mine will occur at the Hanover Mountain and Contential Pit. Mined material from Cobre will be transported to Chino using haul trucks traveling over a haul road connecting the two facilities. Additional activities at Cobre includes a contractor owned and operated screening plant and the loading of magnetite into over-the-road trucks and rail cars for transport to customers off-site. There are also two (2) diesel-fired emergency generators at Cobre for use during unplanned power outages and a tailings impoundment from past operations at this site.
- B. This facility is located approximately 3.9 northeast of Bayard, New Mexico in Grant County.

- C. Modification consists of the construction of a material borrow pit near the Cobre Haul road to provide material for maintenance of the facility haul roads. This construction will require four blasts that are to occur separately, but only for this single construction event, these blasts are not to be completed during any other blasting events at the facility. With this revision blasting and material handling at this borrow pit are to be included to the facility emissions. These new emission sources are not to modify any preexisting sources or scenarios. New Units include BORR_BLST: Cobre Haul Road Borrow Pit Blasting and BORR_MH: Cobre Haul Road Borrow Pit Material Handling.. The description of this modification is for informational purposes only and is not enforceable.
- D. Table 102.A and Table 102.B show the total potential emission rates (PER) from this facility for information only. This is not an enforceable condition and excludes emissions from Minor NSR exempt activities per 20.2.72.202 NMAC.

Table 102.A: Total Potential Emission Rate (PER) from Entire Facility

Pollutant	Emissions (tons per year)
Nitrogen Oxides (NO _x) (non-fugitives of 197.88)	281.6
Carbon Monoxide (CO) (non-fugitives of 98.25)	1452.9
Volatile Organic Compounds (VOC) (non-fugitives of 16.59)	21.4
Sulfur Dioxide (SO ₂) (non-fugitives of 3.98)	4.1
Particulate Matter (PM) (non-fugitives of 13.66)	17,641.6
Particulate Matter less than 10 microns (PM ₁₀) (non-fugitives of 13.66)	4,697.0
Particulate Matter less than 2.5 microns (PM _{2.5}) (non-fugitives of 13.66)	503.4
Greenhouse Gas (GHG)(CO ₂ e)	355,886.8

Note: Total Potential Pollutant Emissions in Table 102.A, may include fugitive emissions; routine or predictable, startup, shutdown, and maintenance emissions (SSM); and permitted malfunction allowances if these are a sources of regulated air pollutants from this facility.

Table 102.B: Total Potential Emissions Rate (PER) for *Hazardous Air Pollutants (HAPs) that exceed 1.0 ton per year

Pollutant	Emissions (tons per year)
Formaldehyde	1.5
Toluene	1.3
Total HAPs**	5.4

* HAP emissions are included in the Table 102.A VOC emissions total.

** Total HAP emissions may not agree with the sum of individual HAPs because only individual HAPs emitted at a rate greater than 1.0 ton per year are listed in Table 102.B.

A103 Facility: Applicable Regulations

A. The permittee shall comply with all applicable sections of the requirements listed in Table 103.A.

Table 103.A: Applicable Requirements

Applicable Requirements	Federally Enforceable	Unit No.
20.2.1 NMAC General Provisions	X	Entire Facility
20.2.3 NMAC Ambient Air Quality Standards	X	Entire Facility
20.2.7 NMAC Excess Emissions	X	Entire Facility
20.2.61 NMAC Smoke and Visible Emissions	X	SX/EW Boilers No1, No 2, and No3, F-2-1-1.4, F-2-1-1.5, CB SCRNG, CH SCRNG, ENG-1
20.2.70 NMAC Operating Permits	X	Entire Facility
20.2.71 NMAC Operating Permit Emission Fees	X	Entire Facility
20.2.72 NMAC Construction Permit	X	Entire Facility
20.2.73 NMAC Notice of Intent and Emissions Inventory Requirements	X	Entire Facility
20.2.75 NMAC Construction Permit Fees	X	Entire Facility
20.2.77 NMAC New Source Performance Standards	X	Units subject to 40 CFR 60—
20.2.82 NMAC MACT Standards for Source Categories of HAPS	X	Units subject to 40 CFR 63
40 CFR 50 National Ambient Air Quality Standards	X	Entire Facility
40 CFR 60, Subpart A, General Provisions	X	Entire Facility
40 CFR 60.40c, Subpart Dc, Subpart Dc, Performance Standards for Small Industrial-Commercial-Institutional Steam Generating Units	X	F-2-1-1.5 (HRSG)
40 CFR 60.330, Subpart GG, Standards of Performance for Stationary Gas Turbines	X	F-2-1-1.4 (Combustion Turbine)
40 CFR 60.380, Subpart LL, Standards of Performance for Metallic Mineral Processing Plants	X	PC-01, PC DUMP, CTS-01, CV-01A, CV-01B, CV-01C, SAG-F1, IC-01, SCDP
40 CFR 60.380, Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants	X	WH Crush
40 CFR 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines	X	CB SCRNG, CH SCRNG (Screening Plant Engine)
40 CFR 63, Subpart A, General Provisions	X	Units subject to 40 CFR 63
40 CFR 63, Subpart CCCCC, National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities	X	All GDFs

Table 103.A: Applicable Requirements

Applicable Requirements	Federally Enforceable	Unit No.
40 CFR 63, Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines	X	CB SCRNG, CH SCRNG (Screening Plant Engine); ENG-1
40 CFR 82, Subpart F, Protection of Stratospheric Ozone, Service, Maintenance and Repair of Air Conditioners	X	Entire Facility

A104 Facility: Regulated Sources

- A. Table 104.A lists the emission units authorized for this facility. Emission units identified as exempt activities (as defined in 20.2.72.202 NMAC) and/or equipment not regulated pursuant to the Act are not included.

Table 104.A: Regulated Sources List

Unit No.	Source Description	Make	Model	Serial No.	Construction/Reconstruction Date	Manufacture Date	Manufacturer Rated Capacity /Permitted Capacity
Chino/Cobre Mining Operations							
CM BLST	Chino Mine Blasting	N/A		N/A	N/A	N/R	400,000 pounds per day of blasting agent
CM MH	Chino Mine Material Handling	N/A		N/A	N/A	N/R	Max-daily 1,000,000 tons; Max-annual 365 MMtons
CM HR	Chino Mine Haul Roads	N/R		N/R	N/A	N/R	N/R
CBM BLST	Cobre Mine Blasting	N/A		N/A	N/A	N/R	110,000 pounds per day of blasting agent
CBM MH	Cobre Mine Material Handling	N/A		N/A	N/A	N/R	see condition A108
CBM HR	Cobre Mine Hauling	N/A		N/A	N/A	N/R	N/A
BORR_BLST	Cobre Haul Road Borrow Pit Blasting	N/A		N/A	2022	N/A	4 blasts per day at 29,925 pounds of blasting agent each

Table 104.A: Regulated Sources List

Unit No.	Source Description	Make	Model	Serial No.	Construction/ Reconstruction Date	Manufacture Date	Manufacturer Rated Capacity /Permitted Capacity
BORR_MH	Cobre Haul Road Borrow Pit Material Handling	N/A		N/A	2022	N/A	
Chino/Cobre Crushing and conveying							
PC DUMP	Primary Crusher Dump Pocket	N/R	N/R	N/R	N/R	N/R	3,360 tons/hr
PC-01	Primary Crusher	N/R	N/R	N/R	6/13/1981	6/13/1981	3,360 tons/hr
CTS-01	Conveyor Transfer (beneath PC- 01)	not reported	not reported	not reported	not reported	not reported	3,360 tons/hr /
CV-01A	Coarse Ore Stockpile Conveyor, Flight #1	not reported	not reported	not reported	6/13/1981	6/13/1981	3,360 tons/hr
CV-01B	Coarse Ore Stockpile Conveyor, Flight #1	not reported	not reported	not reported	not reported	not reported	3,360 tons/hr
CV-01C	Coarse Ore Conveyer Transfer (between CV- 01A and CV- 01B)	not reported	not reported	not reported	not reported	not reported	3,360 tons/hr
SCDP	Stacker Conveyor	N/R		N/R	N/R	N/R	3,360 tons/hr
Ivanhoe Concentrator							
SAG-F1 (IC- 04)	SAG Mill Feeders	Concentrate Handling		N/A	6/13/1981	6/13/1981	3,300 tons/hr
IC-01	Molybdenum Plant	Molybdenum Plant	not reported	not reported	8/13/2001	8/13/2001	not reported
LHS-01 (IC- 06)	Lime Handling System	Lime Handling System - Ivanhoe Concentrator	not reported	not reported	not reported	6/6/1980	not reported

Table 104.A: Regulated Sources List

Unit No.	Source Description	Make	Model	Serial No.	Construction/ Reconstruction Date	Manufacture Date	Manufacturer Rated Capacity /Permitted Capacity
LUS-01	Lime Unloading System	Lime Unloading System - Ivanhoe Concentrator	not reported	not reported	6/13/1981	6/13/1981	not reported
Filter/Blending Plant							
FLTR/BLND	Filter/Blending Plant	N/A		N/A	N/R	N/R	N/A
Chino/Cobre Tailings Impoundments							
CM TLNGS	Chino Mine Tailings Impoundment	N/A		N/A	N/R	N/R	N/R
CB TLNGS	Cobre Mine Tailings Impoundment	N/A		N/A	N/R	N/R	N/R
LmSlk	QuickLime Slaking Mill	Joe White Tank Col	JW 727	JW 727	1/1/1999	1/1/1999	100 tons/day
ENG-1	CI Engine for Lime Slaking	Caterpillar	G3056	7MS00581	1/1/1999	1/1/1999	173 hp
Chino/Cobre Screening Plants							
WH Crush	Crusher	White House Crushing Plant	TBD	TBD	TBD	TBD	500 tons/h
CH SCR�	Screening Material Handling	PORTEC Kolberg	not reported	not reported	not reported	March 2012	1,000 TPH
CB SCR�	Screening Material Handling	Chieftain Powerscreen	2100X	PID00124TDGC 34711-2012	not reported	March 2012	450 TPH
CH SCR� ENG	Screening Plant Diesel Engine	Deutz,	BF4M2012	010106/04	8/2006	8/2006	96.5 HP
CB SCR� ENG	Screening Plant Diesel Engine	Caterpillar	C4.4 ATAAC-4 cylinders	BPKXL04.4N M1	After 6/12/06	2/2012	111 HP
Chino Power Plant Operations							
F-2-1-1.4	Westinghouse Gas Turbine	Westinghouse	W251B12	4658139	1/1/2000	1/1/2000	455 MMBtu/hr
F-2-1-1.5	Heat Recovery Steam Generator	HRSR w/duct burner	not reported	not reported	2000	2000	48.8 MMBtu.hr
Chino SXEW Operation							
SXEW Boiler No.1	SXEW Plant Water Boiler No.1	Lochinvar	CBL1257	H12H002426 05	not reported	1996	1.255MMBtu/hr

Table 104.A: Regulated Sources List

Unit No.	Source Description	Make	Model	Serial No.	Construction/Reconstruction Date	Manufacture Date	Manufacturer Rated Capacity /Permitted Capacity
SXEW Boiler No.2	SXEW Plant Water Boiler No.2	Lochinvar	CBL1257	H12H00242604	not reported	1996	1.255MMBtu/hr
SXEW Boiler No.3	SXEW Plant Water Boiler No.3	Weben-Jarco, Inc.	AJH140	AJH140.1067	not reported	1/1/1996	1.4 MMBtu/hr
SXEW 10MST	SX/EW Plant Ten Mixer/settler Tanks	Mixer/Settler Tank	not reported	not reported	not reported	8/15/2000	6-39,000 sqft & 4-39,400 sqft (±10%)
SXEW RT	SX/EW Plant Raffinate Tank	SX/EW Plant Raffinate Tank	not reported	not reported	not reported	8/15/2000	5,024 sqft (±10%)
SXEW SAT	SXEW Plant Acid Tankhouse	not reported	not reported	not reported	not reported	not reported	not reported
Gasoline Dispensing Facilities							
GDF (4 tanks)	Gasoline Dispensing Facilities	not reported	not reported	not reported	not reported	not reported	
Emergency Fire Water Pump Engines							
Emergency Fire Pump	SXEW Fire Emergency Pump	Detroit Diesel	Detroit Diesel	08GR109034	Jan 1996	Feb 1988	195 hp Diesel
FWP01	Concentrator Fire Emergency Pump	Detroit Diesel	10447312	4A0252067	Aug 1981	Aug 1981	185 hp Diesel

1. All TBD (to be determined) units and like-kind engine replacements must be evaluated for applicability to NSPS and MACT requirements.

A105 Facility: Control Methods

A. Table 105.A lists all the pollution control methods required for this facility. Each emission point is identified by the same number that was assigned to it in the permit application.

Table 105.A: Control Methods:

Control Equipment Unit No.	Control Description	Pollutant being controlled	Control for Unit No. ¹
MP SCRB	Moly Plant Wet Scrubber	PM/PM ₁₀ /PM _{2.5}	IC-01
PCB H-01	Primary Crusher Baghouse	PM/PM ₁₀ /PM _{2.5}	PC-01

Table 105.A: Control Methods:

Control Equipment Unit No.	Control Description	Pollutant being controlled	Control for Unit No.¹
CSLU-01	Lime Unloading System Wet Scrubber	PM/PM ₁₀ /PM _{2.5}	LUS-01
CSLH-01	Lime Handling System Wet Scrubber	PM/PM ₁₀ /PM _{2.5}	LHS-01
RCB-01	Recycle Crusher Baghouse (no emissions to atmosphere; vents back into building)	PM/PM ₁₀ /PM _{2.5}	Recycle Crusher
CB SCRN	Water sprayers	PM ₁₀ /PM _{2.5}	CB SCRN
FLTR/BLND	Building Enclosure, 85%	PM ₁₀ /PM _{2.5}	FLTR/BLND
Dust Control Plan	Watered and treated by application of base course or other equally effective measures to control particulate emissions	PM ₁₀ /PM _{2.5}	CM HR, CM BLST, CBM HR (incl Magnetite Operation), CBM BLST
Haul Roads Scenario 1 & 2 Control	Control measures applied per Table 105.D	PM ₁₀ /PM _{2.5}	CBM HR & CM HR

1 Control for unit number refers to a unit number from the Regulated Equipment List

B. Wet Scrubber Monitoring

Requirement: Units IC-01, LUS-01, and LHS-01 shall be controlled by the wet scrubbers as required in Table 105.A.
Monitoring: Except for periods of monitoring system breakdowns, repairs, maintenance, and calibration checks, Permittee shall continuously monitor: (1) the differential pressure (inches of water) across the wet scrubbers via a differential pressure gauge; and (2) the water flow rate (gallons per minute) into the scrubber via a flow meter while the associated process equipment is operating. Monitoring devices shall be maintained in good operating condition.
Recordkeeping: The Permittee shall maintain records in accordance with Section B109.
Reporting: The Permittee shall report in accordance with Section B110.

C. Baghouse Monitoring

Requirement: Units PC-01 and Recycle Crusher RCB-01 shall be controlled by the baghouses in accordance with Table 105.A.
Monitoring: Except for periods of monitoring system breakdowns, repairs, maintenance, and calibration checks, Permittee shall continuously monitor the differential pressure (inches of water) across the baghouses with a differential pressure gauge while the associated process equipment is operating. Monitoring devices shall be maintained in good operating condition.
Recordkeeping: The Permittee shall maintain records in accordance with Section B109.
Reporting: The Permittee shall report in accordance with Section B110.

- D. Haul Roads, Unit CBM HR and CM HR Control Scenarios 1 and 2: The permittee shall meet control scenarios 1 and 2 for the applicable mining scenario, daily throughput limits, and associated control scenarios are listed in Table 105.D1 & D2.

Table 105.D1. Control Scenario 1 (Cobre Haul Roads)

Mining Scenario	Maximum Throughput (tons/day)	Control Efficiency¹ (%)
Total Material	126,000	96.8
(SWRDF stockpile)	40,000	88.8
Chino (Ore)	86,000	96.8

¹ Control efficiencies are derived from a combination of controls. A control efficiency of 88.8% is based on a combination of base-course treatment, blading, and watering with a maximum speed limit of 35 miles/hour. A control efficiency of 96.8% is based on a combination of base-course treatment, blading, watering, and a dust suppressant. These control efficiencies are based on factors from the Western Regional Air Partnership (WRAP) Fugitive Dust Handbook, published September 7, 2006.

Blasting at both Hanover Mountain and Santa Rita Pit are limited to occur up to four times per day during daylight hours only. Permit 0298-M10 authorizes increases in the emissions and throughputs associated with the haul roads, material handling, and screening plant operations in the new Control Scenario 2 (See Table 105.D2 below).

Table 105.D2 Control Scenario 2 (Chino-Cobre Haul Roads)

Haul Road	Maximum Throughput (tons/day)	Control Efficiency¹ (%)
Cobre Haul Roads		
Hanover Mountain Road	126,000	96.8
SWRDF Road	75,000	88.8
Cobre Haul Road	66,000	96.8
NOBS	46,000	88.8
Magnetite	4,500	88.8
Chino Haul Roads		
Maintenance Entrance Road	100,000	88.8
Muffler Road	100,000	88.8
South Stockpile Road	100,000	88.8
3A/9 Dam	100,000	88.8
West Stockpile	100,000	88.8
Café to Lampbright	160,000	88.8
LBX Road	160,000	88.8
Upper Lampbright	160,000	88.8
Lower Lampbright	160,000	88.8
Crusher/Stockpiles/Rehandle	100,000	88.8
Roundabout	100,000	88.8
Princess Ramp/Lee Hill Road	66,000	88.8

¹ Control efficiencies are derived from a combination of controls. A control efficiency of 88.8% is based on a combination of base-course treatment, blading, and watering with a maximum speed limit of 35 miles/hour. A control efficiency of 96.8% is based on a combination of base-course treatment, blading, watering, and a dust suppressant. These control efficiencies are based on factors from the Western Regional Air Partnership (WRAP) Fugitive Dust Handbook, published September 7, 2006.

- E. In addition to the pre-existing Control Scenarios 1 & 2, a borrow pit is to be constructed near the Cobre Haul Road. Four one-time blasts per day will be conducted to construct the pit, the blast shall occur during daylight hours from 0900 hrs to 1500 hrs and shall not occur simultaneously as blasting at either Hanover Mountain or the Santa Rita Pit. Furthermore, these blasts and associated material handling shall not interfere with any other operations at the facility.

A106 Facility: Allowable Emissions

- A. The following Section lists the emission units and their allowable emission limits. (See applicable requirements in Table 103.A).

Table 106.A: Allowable Emissions (Stack emissions are highlighted in red text for PSD applicability)

Unit No.	NO _x (pph)	¹ NO _x (tpy)	CO (pph)	CO (tpy)	VOC (pph)	VOC (tpy)	SO ₂ (pph)	SO ₂ (tpy)	PM ₁₀ (pph)	PM ₁₀ (tpy)	PM _{2.5} (pph)	PM _{2.5} (tpy)
Chino/Cobre Mining Operations												
CM BLST	*	46.8	*	1056.6			*	<	*	70.1	*	4.0
CM MH	-	-	-	-	-	-	-	-	0.88	3.85	0.13	0.58
CM HR	-	-	-	-	-	-	-	-	282.8	4088.7	28.3	408.9
CBM BLST	*	12.9	*	290.6	-	-	*	<	*	17.3	*	1.0
CBM MH	-	-	-	-	-	-	-	-	<	<	<	<
CBM HR	-	-	-	-	-	-	-	-	44.18	207.5	4.42	20.75
BORR_BLST	*	<	*	1.2	-	-	*	<	*	<	*	<
BORR_MH	-	-	-	-	-	-	-	-	<	<	<	<
LmSlk									1.3	0.17	0.19	0.03
ENG-1	5.4	4.1	1.2	0.88	0.44	0.33	0.36	0.27	0.38	0.29	0.38	0.29
Chino/Cobre Crushing and Conveying												
PC DUMP	-	-	-	-	-	-	-	-	<	<	<	<
PC-01 ³	-	-	-	-	-	-	-	-	2.2	9.5	2.2	9.5
SCDP ²	-	-	-	-	-	-	-	-	<	<	<	<
CV-01C	-	-	-	-	-	-	-	-	<	2.4	<	<
Ivanhoe Concentrator												
SAG-F1 (IC-04)	-	-	-	-	-	-	-	-	<	2.4	<	<
IC-01	-	-	-	-	-	-	-	-	<	1.4	<	1.4
LHS-01 (IC-06)	-	-	-	-	-	-	-	-	<	<	<	<
LUS-01	-	-	-	-	-	-	-	-	<	<	<	<
Filter/Blending Plant												
FLTR/BLND ⁴	-	-	-	-	-	-	-	-	<	<	<	<
Chino/Cobre Tailings Impoundments												

Table 106.A: Allowable Emissions (Stack emissions are highlighted in red text for PSD applicability)

Unit No.	NO _x (pph)	¹ NO _x (tpy)	CO (pph)	CO (tpy)	VOC (pph)	VOC (tpy)	SO ₂ (pph)	SO ₂ (tpy)	PM ₁₀ (pph)	PM ₁₀ (tpy)	PM _{2.5} (pph)	PM _{2.5} (tpy)
CB TLNGS	-	-	-	-	-	-	-	-	<	<	<	<
CM TLNGS	-	-	-	-	-	-	-	-	38.85	170.15	5.83	25.52
Chino/Cobre Screening Operations												
WH Crush									34.48	75.51	6.2	13.57
CH SCRN	-	-	-	-	-	-	-	-	8.6	6.1	1.2	<
CB SCRN	-	-	-	-	-	-	-	-	1.5	2.3	<	<
CB SCRN ENG	1.2	2.5	1.0	2.2	0.5	1.1	<	<	<	1.0	<	1.0
CH SCRN ENG	1.0	3.6	<	<	<	<	<	1.0	<	1.0	<	1.0
Chino SXEW Operation												
SXEW Boiler No.1	<	<	<	<	<	<	<	<	<	<	<	<
SXEW Boiler No.2	<	<	<	<	<	<	<	<	<	<	<	<
SXEW Boiler No.3	<	<	<	<	<	<	<	<	<	<	<	<
SXEW 10MST	-	-	-	-	<	1.3	-	-	-	-	-	-
SXEW RT	-	-	-	-	<	<	-	-	-	-	-	-
SXEW SAT	-	-	-	-	-	-	-	-	2.3	10.2		
Chino Power Plant Operations												
F-2-1-1.4	39.9	174.8	20.0	87.6	2.8	12.3	<	1.8	2.3	10.1	2.3	10.1
F-2-1-1.5	2.4	10.5	1.3	5.7	<	2.6	<	<	<	1.3	<	1.3
Gasoline Dispensing Facilities												
GDF	-	-	-	-	*	2.7	-	-	-	-	-	-

1 Nitrogen dioxide emissions include all oxides of nitrogen expressed as NO₂.

2 Unit SCDP includes emissions from CV-01A Flight 1 and CV-01B Flight B.

3 Unit PC-01 includes emissions from CTS-01.

4 Unit FLTR/BLND includes emissions from Units CV-01-53, CV-02-53, CV-03, CV-04, CV-05, CV-06, and F-1-3-2

5 For Title V facilities, the Title V annual fee assessments are based on the sum of allowable tons per year emission limits in Sections A106 and A107.

6 To report excess emissions for sources with no pound per hour and/or ton per year emission limits, see condition (B110.E in the Title V permit and B110.F in the NSR permit).

“-” indicates the application represented emissions of this pollutant are not expected.

“<” indicates the application represented uncontrolled emissions are less than 1.0 pph or 1.0 tpy for this pollutant, therefore allowable limits are not imposed on this level of emissions. Allowable limits shall be established for all flares and all pollutants with controls.

“*” indicates hourly emission limits are not appropriate for this operating situation.

Table 106.B: Performance Standards for Ivanhoe Concentrator Equipment (40 CFR 60, Subpart LL)

Unit	Grain Loading	Opacity
Molybdenum Plant (electric heat, w/ wet scrubber)	0.05 grams/DSCM (0.02 grains/dscf)	NA
PCB H-01 (Primary crusher baghouse)	0.05 grams/DSCM (0.02 grains/dscf)	7%
(CTS-01) Conveyer Transfer systems	NA	10%
SAG-F1 Mill Feeders	NA	10%

Note: 1 grain/cu ft = 2.29 grams/cu meter

- B. Unit F-2-1-1.4, nitrogen dioxide emissions shall not exceed 184 ppmv at 15 percent oxygen and on a dry basis. (40 CFR 60, Subpart GG)
- C. SO₂ emissions from the turbine (Unit F-2-1-1.4) shall not exceed 0.015 percent by volume at 15 percent oxygen on a dry basis or shall not burn fuel which contains sulfur in excess of 0.8 percent by weight (8000 ppmw). (40 CFR 60.333)
- D. Facility-wide PM Emissions

<p>Requirement: The permit application specifies the annual facility-wide Particulate Matter (PM) Potential To Emit (PTE) to be 17,641.2 tons per year (TPY). The permittee shall monitor, keep records, and report Total Annual PM emissions as required by this condition. (20.2.73.300.B(4) NMAC).</p>
<p>Monitoring: The permittee shall monitor the total facility-wide PM annual emissions and shall acquire and maintain the monthly data of PM emissions, including:</p> <ol style="list-style-type: none"> 1) For equipment with non-fugitive emissions, based on through-put or hours operated and emission factors. 2) For fugitive PM emissions, based on material handling and/or haul road traffic.
<p>Recordkeeping:</p> <ol style="list-style-type: none"> 1) Annually, the permittee shall calculate and maintain records of the calendar-year, facility-wide total PM annual emissions. 2) The permittee shall maintain records of the acquired monthly data needed to calculate PM emissions. If requested by the Department, the permittee shall generate a monthly rolling 12-month tpy of PM emissions for each month since the last annual facility-wide total PM emission report. 3) Records shall be maintained in accordance with Section B109.
<p>Reporting: The Permittee shall report in accordance with Section B110.</p>

A107 Facility: Allowable Startup, Shutdown, & Maintenance (SSM)

- A. Separate allowable SSM emission limits are not required for this facility since the SSM emissions are predicted to be less than the limits established in Table 106A. The permittee shall maintain records in accordance with Condition B109.C.

A108 Facility: Allowable Operations

- A. This facility is authorized for continuous operation unless otherwise limited by conditions in this permit.
- B. Cobre Mine Throughput (Unit CBM MH)

Requirement: Emission limits and the PSD minor source status of this facility were established by limiting the total material handling at the Cobre Mine and the Continental/Hanover Mining at the Cobre Mine. Compliance with the allowable particulate emission limits in Table 106.A shall be demonstrated through adherence to the following production limits:

- (1) The total material handling of magnetite at the Cobre Mine shall not exceed 4,500 tons per day and 1,346,800 tons per year.
- (2) The total material handling of Continental/Hanover Mining at the Cobre Mine shall not exceed the production limit of 126,000 tons per day and 45,990,000 tons per year.
- (3) These operations are authorized to operate 24-hours per day. This production rates were specified in the permit application and is the basis for the Department's modeling analysis to determine compliance with the applicable ambient air quality standards.

Monitoring: The Permittee shall monitor the daily process rates of the Cobre Mine while the process is in operation.

Recordkeeping: The Permittee shall produce production records upon request. The records shall be computer generated or hand-written summaries supported by the data.

When requested, the Permittee shall produce a record of each process that includes:

- (1) the date:
- (2) a record of the daily production total,
- (3) each month, during the first 12 months of monitoring, the permittee shall calculate of the cumulative production total, and
- (4) after the first 12 months of monitoring, the permittee shall record the monthly rolling 12-month production total.

Reporting: The Permittee shall maintain the ability to generate a report from the information collected. This report shall be generated upon request.

The Permittee shall report in accordance with Section B110.

Table 108.B, Maximum Cobre Mine Throughput Limits

	Control Scenario 1
Total material	126,000 TPD
SWRDF stockpile	40,000 TPD
Chino (Ore)	86,000 TPD

C. Chino Mine Throughput: - Copper Ore Production Limits (Unit CM MH)

Requirement: Multiple emission limits and the PSD minor source status of this facility were established by limiting the copper ore production of this facility. Compliance with permitted limits in Table 106.A shall be demonstrated by not exceeding the maximum mine material throughput limits of 1,000,000 tons per day mined from the Santa Rita Pit and delivered to Stockpiles. This operation is authorized to operate 24-hours per day. This production rate (tons/day) was specified in the permit application and is the basis for the Department's modeling analysis to determine compliance with the applicable ambient air quality standards.

Monitoring: The Permittee shall monitor the amount of material mined from the Santa Rita Pit and delivered to each Stockpile on a daily rolling 365-day total basis.

Recordkeeping: The Permittee shall maintain the ability to produce production records upon request. The records can be computer generated or hand-written summaries supported by the data.

When requested, the Permittee shall produce a record that includes the emission activity name, date, and:

- (1) a record of the daily production rate,
- (2) during the first 365 days of monitoring, the permittee shall calculate a daily rolling 365-day total of production rate,
- (3) after the first 365 days of monitoring, a record of the daily rolling 365-day total production rate.

Reporting: The Permittee shall maintain the ability to generate a report from the information collected. This report shall be generated upon request.

The Permittee shall report in accordance with Section B110.

D. Cobre Haul Road Borrow Pit Material Handling (Unit BORR_MH)

Requirement: Emission limits and the PSD minor source status of this facility were established by limiting the total material handling at the Cobre Mine and the Continental/Hanover Mining at the Cobre Mine and the Borrow Pit. Compliance with the allowable particulate emission limits in Table 106.A shall be demonstrated through adherence to the following production limits:

- (1) The total material handling of magnetite at the Cobre Haul Road Borrow Pit shall not exceed 959 tons per day and 350,000 tons per year.
- (2) This operation is authorized to operate 24-hours per day and 365 days per year. This production rates were specified in the permit application and is the basis for the Department's

modeling analysis to determine compliance with the applicable ambient air quality standards.
Monitoring: The Permittee shall monitor the daily process rates of the Cobre Haul Road Borrow Pit while the process is in operation.
Recordkeeping: The Permittee shall produce production records upon request. The records shall be computer generated or hand-written summaries supported by the data. When requested, the Permittee shall produce a record of each process that includes: (1) the date: (2) a record of the daily production total, (3) each month, during the first 12 months of monitoring, the permittee shall calculate the cumulative production total, and (4) after the first 12 months of monitoring, the permittee shall record the monthly rolling 12-month production total.
Reporting: The Permittee shall maintain the ability to generate a report from the information collected. This report shall be generated upon request. The Permittee shall report in accordance with Section B110.

A109 Facility: Reporting Schedules

- A. The permittee shall report according to the Specific Conditions and General Conditions of this permit.

A110 Facility: Fuel and Fuel Sulfur Requirements

- A. Facility Wide Fuel and Fuel Sulfur Limits (Units ENG-1, CB SCRNG and CH SCRNG)

Requirement: The generators (Units ENG-1, CB SCRNG and CH SCRNG) shall combust only low sulfur diesel fuel. The sulfur content of the fuel oil shall not exceed 0.05% sulfur by weight.
Monitoring: None. Compliance is demonstrated through records.
Recordkeeping: The Permittee shall demonstrate compliance with the natural gas or fuel oil limit on total sulfur content by maintaining records of a current, valid purchase contract, tariff sheet or transportation contract, or vendor certification for the gaseous or liquid fuel, or fuel gas analysis, specifying the allowable sulfur content or less. Alternatively, compliance may be demonstrated by keeping a receipt or invoice from a commercial fuel supplier, with each fuel delivery, which shall include the delivery date, the fuel type delivered, the amount of fuel delivered, and the maximum sulfur content of the fuel. If fuel gas analysis is used, the analysis shall not be older than one year.
Reporting: The Permittee shall report in accordance with Section B110.

A111 Facility: 20.2.61 NMAC Opacity

- A. 20.2.61 NMAC Opacity Requirements (Units SXEW Boilers 1, 2, 3- Propane fired; F-2-1-1.4 and F-2-1-1.5; ENG-1, CB SCRNG and CH SCRNG)

Requirement: Visible emissions from the stationary combustion equipment listed in this condition shall not equal or exceed an opacity of 20 percent in accordance with the requirements at 20.2.61.109 NMAC.

- (1) Units F-2-1-1.4 and F-2-1-1.5 shall combust only natural gas.
- (2) Units SXEW Boilers 1, 2, 3- Propane fired.
- (3) Units ENG-1, CB SCRNG and CH SCRNG shall combust only diesel fuel.

Monitoring: When burning fuel other than natural gas or natural gas liquids in the stationary combustion equipment, the Permittee shall conduct opacity measurements on a quarterly basis. When burning any fuel in the stationary combustion equipment, the Permittee shall, to the extent practicable, conduct an opacity measurement when any visible emissions are observed that appear to exceed the 20 percent opacity standard on an instantaneous basis. Upon observing such visible emissions, the Permittee may instead elect to shut down the equipment (as soon as practicable, but no later than 1 hour after observing such visible emissions) to conduct an inspection and perform any maintenance or repairs. After completion of any such inspection, maintenance, or repairs, the Permittee shall conduct an opacity measurement following startup of the equipment. Opacity measurements shall be conducted over a 10-minute period, in accordance with the procedures at 40 CFR 60, Appendix A, Reference Method 9 (EPA Method 9) as required by 20.2.61.114 NMAC.

Recordkeeping: The Permittee shall maintain records in accordance with Section B109 of the following:

- (1) Dates and duration of any fuels used other than natural gas or natural gas liquids in the stationary combustion equipment; and
- (2) Each opacity measurement conducted in accordance with the requirements of EPA Method 9 using the form referenced in EPA Method 9, Sections 2.2 and 2.4.

Reporting: The permittee shall report in accordance with Section B110.

A112 Facility: Haul Roads

- A. Haul Roads Cobre Mine (Unit CBM HR)

Requirement: Based on the throughputs associated with the haul roads in Control Scenario 2 shown in Table 105.D.2, the fugitive emissions of PM₁₀, and PM_{2.5} from all vehicles travelling on haul roads (Haul Roads means all unpaved roads within the property boundary) at the Cobre Mine shall not exceed the tons per year limits established in Table 106.A on a monthly-rolling 12-month total basis. Compliance with the particulate emissions limits in Table 106.A shall be demonstrated by calculating emissions using vehicle miles travelled, applicable control factors, and emission factors from AP-42. This operation is authorized to operate 24-hours per day.

The Permittee is not required to modify this permit for minor or temporary changes in road

location as long as the change neither causes nor contributes to any exceedances of applicable air quality standards and does not increase road emissions listed in Table 106.A. Based on modeling analysis, it has been determined that changes made more than ¼ mile from the fence line neither causes nor contributes to any exceedance of applicable air quality standards and therefore an update to the model for these changes pursuant to Section B101 of this permit is not required to be submitted. The standards relevant to the haul roads are NAAQS for PM₁₀ and PM_{2.5}; and Class I and Class II PSD increments for PM₁₀ and PM_{2.5}.

Monitoring:

- (1) The permittee shall monitor the frequency, quantity, and location(s) of the water application, or equivalent control measures.
- (2) The Permittee shall monitor vehicle miles travelled on Cobre Mine haul roads for haul trucks and estimate the miles traveled by other vehicles.
 - a. Within the first 15 days of each calendar month, the Permittee shall calculate the prior month's total vehicle miles travelled by haul trucks and estimate the total vehicle miles travelled by other vehicles (i.e. passenger/maintenance/delivery/over-the-road trucks/non-haul trucks).
 - b. Each month, during the first 12 months of monitoring, the permittee shall calculate the cumulative total of fugitive emissions of PM₁₀, and PM_{2.5}.
 - c. After the first 12 months of monitoring the Permittee shall calculate the monthly-rolling 12-month total fugitive emissions of PM₁₀, and PM_{2.5}.

Recordkeeping:

- (1) The permittee shall keep daily records of the frequency, quantity, and location(s) of the water application, or equivalent control measures.
- (2) The Permittee shall keep monthly records of calculated vehicle miles travelled by haul trucks and estimated vehicle miles travelled by other vehicles on Cobre Mine haul roads and the calculated total fugitive emissions.
- (3) The Permittee shall keep records of control and operating scenarios in Tables 105.D and 108.B, Mining Scenario, emission factors, and control efficiency.

Reporting: The Permittee shall report in accordance with Section B110.

B. Haul Roads Chino Mine (Unit CM HR)

Requirement: Based on the throughputs associated with the haul roads in Control Scenario 2 shown in Table 105.D.2, the fugitive emissions of PM₁₀, and PM_{2.5} from all vehicles travelling on haul roads (Haul Roads means all unpaved roads within the property boundary) at the Chino Mine shall not exceed the limits established in Table 106.A on a monthly-rolling 12-month total basis. Compliance with the particulate emissions limits in Table 106.A shall be demonstrated by calculating emissions using vehicle miles travelled, applicable control factors, and emission factors from AP-42. This operation is authorized to operate 24-hours per day.

The Permittee is not required to modify this permit for minor or temporary changes in road location as long as the change neither causes nor contributes to any exceedances of applicable air quality standards and does not increase road emissions listed Table 106.A. Based on modeling analysis, it has been determined that changes made more than ¼ mile from the fence line neither causes nor contributes to any exceedance of applicable air quality standards. Therefore, an update to the model for these changes pursuant to Section B101 of this permit is not required to be submitted. The standards relevant to the haul roads are NAAQS for PM₁₀ and PM_{2.5}; and Class I and Class II PSD increments for PM₁₀ and PM_{2.5}.

Monitoring: The Permittee shall monitor vehicle miles travelled on Chino Mine haul roads as follows.

(1) Within the first 15 days of each calendar month, the Permittee shall calculate the prior month's total vehicle miles travelled by haul trucks and estimate the total vehicle miles travelled by other vehicles (i.e. passenger/maintenance/delivery/over-the-road trucks/non-haul trucks) travelling on haul roads.

(2) Each month, during the first 12 months of monitoring, the permittee shall calculate the cumulative total of fugitive emissions of PM₁₀, and PM_{2.5}.

(3) After the first 12 months of monitoring, the Permittee shall calculate the monthly-rolling 12-month total fugitive emissions of PM₁₀, and PM_{2.5}.

Recordkeeping:

(1) The Permittee shall keep monthly records of the total vehicle miles travelled by haul trucks and other vehicles (i.e. passenger/maintenance/delivery) travelling on haul roads and the calculated fugitive emissions.

(2) The Permittee shall keep records of their determination that a permit modification is not necessary. Haul road changes shall be recorded in the Chino Mine Dust Control Plan.

Reporting: The Permittee shall report in accordance with Section B110.

C. Haul Road Control throughout Chino Mine (Unit CM HR)

Requirement: To demonstrate compliance with the allowable emissions limits in Table 106.A, truck traffic areas and haul roads at the Chino Mine shall be watered **and** treated by application of base course or other equally effective measures to control particulate emissions. Prior to implementing, the Permittee shall obtain NMED approval of any "equally effective measures to control particulate emissions."

(1) The haul roads shall be controlled by measures required in Condition A105.D for Control Scenario 2.

(2) Control measures shall be implemented when visible emissions are observed at the height of standard haul truck headlights.

(3) These control measures shall be used on unpaved roads within the facility as far as the nearest public road.

Monitoring:

- (1) The permittee shall monitor the frequency, quantity, and location(s) of the water application, or equivalent control measures.
- (2) The Permittee shall conduct daily monitoring of truck traffic areas and haul roads for the presence of adequate moisture, base course, and/or other measures to minimize fugitive particulate emissions. Daily monitoring and application of control measures are not required for areas covered by snow or ice, or if precipitation has occurred that is sufficient to control particulate emissions.

Recordkeeping:

- (1) The permittee shall keep daily records of the frequency, quantity, and location(s) of the water application, or equivalent control measures.
- (2) The records shall indicate if the daily inspection revealed no areas requiring additional control measures.

Reporting: The Permittee shall report in accordance with Section B110.

D. Haul Road Control throughout Cobre Mine (Unit CBM HR)

Requirement: To demonstrate compliance with the allowable emissions limits in Table 106.A, the permittee shall meet the following requirements for the truck traffic areas and haul roads at the Cobre Mine which include the magnetite operation and mining of Continental Pit and Hanover Mountain.

- (1) For the magnetite operation, the haul roads shall be watered **and** treated by application of base course or other equally effective measures to control particulate emissions.
- (2) For the mining at Cobre Mine, the haul roads shall be controlled by the control measures required in Condition A105.D for Control Scenarios 1 and 2.
- (3) Prior to implementing, the Permittee shall obtain NMED approval of any “equally effective measures to control particulate emissions.”
- (4) Except for the speed limit restriction, control measures shall be implemented when visible emissions are observed at the height of standard haul truck headlights. The limit on speed applies at all times.
- (5) These control measures shall be used on unpaved roads within the facility as far as the nearest public road.
- (6) Vehicles traveling on haul roads shall not exceed a speed limit of 35 mph.

Monitoring:

(1) The permittee shall keep daily records of the frequency, quantity, and location(s) of the water application, or equivalent control measures.

(2) The Permittee shall conduct daily monitoring of truck traffic areas and haul roads for the presence of adequate moisture, base course, and/or other measures to minimize fugitive particulate emissions.

(3) Daily monitoring and application of control measures are not required for areas covered by snow or ice, or if precipitation has occurred that is sufficient to control particulate emissions.

Recordkeeping:

(1) The permittee shall keep daily records of the frequency, quantity, and location(s) of the water application, or other control measures.

(2) The Permittee shall keep daily records of the monitoring inspections and will document the location(s) of water application, base course, and/or other measures to minimize fugitive particulate emissions. The records shall indicate if the daily inspection revealed no areas requiring additional control measures.

(3) The Permittee shall keep daily records of which Control Scenario in being used and the tons per day total throughput for that scenario. If more than one scenario is employed in a given day, time of day of changes and duration shall be recorded.

Reporting: The Permittee shall report in accordance with Section B110.

A113 Facility: 40 CFR 82, Subpart F**A. Protection of Stratospheric Ozone, Service, Maintenance and Repair of Air Conditioners**

Requirement: The facility operates and maintains air conditioning systems and is subject to the Subpart F standards for recycling and emissions reductions during maintenance, service, repair, or disposal of appliances.

Monitoring: The Permittee shall comply with the applicable monitoring requirements of 40 CFR 82, Subpart F.

Recordkeeping: The Permittee shall comply with the applicable recordkeeping requirements of 40 CFR 82, Subpart F.

Reporting: The Permittee shall comply with the applicable reporting requirements of 40 CFR 82, Subpart F.

EQUIPMENT SPECIFIC REQUIREMENTS

OIL AND GAS INDUSTRY

A200 Oil and Gas Industry – not required

A. This section has common equipment related to most Oil and Gas Operations.

CONSTRUCTION INDUSTRY

A300 Construction Industry (not required)

A. This section has common equipment related to most Crusher/Screening Operations.

POWER GENERATION INDUSTRY

A400 Power Generation Industry (not required)

A. This section has common equipment related to most Electric Service Operations (SIC-4911).

SOLID WASTE DISPOSAL (LANDFILLS) INDUSTRY

A500 Solid Waste Disposal (Landfills) Industry– (not required)

MINING INDUSTRY

A600 Mining Operations Introduction

A. This section has common equipment related to most mining Operations.

A601 Turbines and Heat Recovery Steam Generator (HRSG)

A. Maintenance and Repair (Unit F-2-1-1.4 (turbine) and F-2-1-1.5 (HRSG))

Requirement: Compliance with the allowable emission limits in Table 106.A shall be demonstrated by properly maintaining and repairing the units.

Monitoring:

Maintenance and repair shall meet the minimum manufacturer's or Permittee's recommended

maintenance schedule. Maintenance and repair activities that involve adjustment, replacement, or repair of functional components with the potential to affect operation of an emission unit shall be documented as they occur for the following events.

- (1) Routine Maintenance that takes a unit out of service for more than two hours during any twenty-four hour period.
- (2) Unscheduled repairs that require a unit to be taken out of service for more than two hours in any twenty-four hour period.

Recordkeeping: The permittee shall maintain records, including a copy of the manufacturer's or permittee's recommended maintenance schedule, in accordance with Section B109.

Reporting: The Permittee shall report in accordance with Section B110.

B. Periodic Emissions Tests (Unit F-2-1-1.4 (turbine) and F-2-1-1.5 (HRSG))

Requirement: Compliance with the allowable emission limits in Table 106.A shall be demonstrated by conducting periodic emission tests during the monitoring period.

Monitoring: The Permittee shall test using a portable analyzer or EPA Reference Methods subject to the requirements and limitations of Section B108, General Monitoring Requirements. For periodic testing of NO_x and CO, emissions tests shall be carried out as described below. Test results that demonstrate compliance with the CO emission limits shall also be considered to demonstrate compliance with the VOC emission limits.

- (1) The testing shall be conducted as follows:
 - a. Testing frequency shall be once per year.
 - b. The monitoring period is defined as a calendar year.
- (2) The tests shall continue based on the existing testing schedule.
- (3) All subsequent monitoring shall occur in each succeeding monitoring period. No two monitoring events shall occur closer together in time than 25% of a monitoring period.
- (4) Follow the General Testing Procedures of Section B111.
- (5) If performance testing is required by 40 CFR 60, Subparts GG, KKKK, or Dc then these tests may be used to satisfy these periodic testing requirements if they meet the requirements of this condition and are completed during the specified monitoring period.
- (6) The power plant can operate in simple cycle mode (turbine only exhaust stack) or in combined cycle mode (turbine + HRSG exhaust stack). Testing shall be conducted on the exhaust stack for which the power plant is configured at the time of testing. It is not necessary to change the power plant configuration from simple cycle mode to combined cycle mode or from combined cycle mode to simple cycle mode merely to conduct the testing. If the power plant configuration is changed for operational reasons since the last testing was conducted, testing on the new configuration shall be conducted within 90 days of changing the configuration.

Recordkeeping: The Permittee shall maintain records in accordance with Section B109. The Permittee shall also record the results of the periodic emissions tests, including the turbine's and HRSG's fuel flow rate and turbine's power output at the time of the test, and the type of fuel fired (natural gas, field gas, etc.).

The Permittee shall also keep records of all raw data used to determine exhaust gas flow and of all calculations used to determine flow rates and mass emissions rates.

Reporting: The Permittee shall report in accordance with Section B110.

C. 40 CFR 60, Subpart GG (Unit F-2-1-1.4)

Requirement: The unit is subject to 40 CFR 60, Subpart GG and the Permittee shall comply with the applicable requirements of 40 CFR 60, Subpart A and Subpart GG.

Monitoring: The Permittee shall comply with the applicable monitoring and testing requirements of 40 CFR 60.334 and 60.335.

Recordkeeping: The Permittee shall comply with the applicable recordkeeping requirements of 40 CFR 60.334 and 40 CFR 60.7.

Reporting: The Permittee shall comply with the reporting requirements of 40 CFR 60.7.

D. 40 CFR 60, Subpart Dc (Unit F-2-1-1.5) (NSR Permit 0298M8, Condition A601.D)

Requirement: The unit is subject to 40 CFR 60, Subpart Dc and the Permittee shall comply with the applicable requirements of 40 CFR 60, Subpart A and Subpart Dc.

Monitoring: The Permittee shall comply with the applicable monitoring requirements of 40 CFR 60.48c.

Recordkeeping: The Permittee shall comply with the applicable recordkeeping requirements of 40 CFR 60.48c and 40 CFR 60.7.

Reporting: The Permittee shall comply with the reporting requirements of 40 CFR 60.7.

A602 Engines

A. Maintenance and Repair Monitoring (Units ENG-1, CH SCRNG and CB SCRNG)

Requirement: Compliance with the allowable emission limits in Table 106.A shall be demonstrated by properly maintaining and repairing the units.

Monitoring: Maintenance and repair shall meet the minimum manufacturer's or permittee's recommended maintenance schedule. Activities that involve maintenance, adjustment, replacement, or repair of functional components with the potential to affect the operation of an emission unit shall be documented as they occur for the following events:

(1) Routine maintenance that takes a unit out of service for more than two hours during any twenty-four hour period.

(2) Unscheduled repairs that require a unit to be taken out of service for more than two hours in any twenty-four hour period.

Recordkeeping: The permittee shall maintain records in accordance with Section B109, including records of maintenance and repairs activities and a copy of the manufacturer's or permittee's recommended maintenance schedule.

Reporting: The permittee shall report in accordance with Section B110.

B. Periodic Emissions Testing (CH SCRNG and CB SCRNG)

Requirement: Compliance with the allowable emission limits in Table 106.A shall be demonstrated by completing periodic emission tests during the monitoring period.

Monitoring: The permittee shall test using a portable analyzer or EPA Reference Methods subject to the requirements and limitations of Section B108, General Monitoring Requirements. For periodic testing of NO_x and CO emissions tests shall be carried out as described below.

Test results that demonstrate compliance with the CO emission limits shall also be considered to demonstrate compliance with the VOC emission limits.

For units with g/hp-hr emission limits, in addition to the requirements stated in Section B108, the engine load shall be calculated by using the following equation:

$$\text{Load(Hp)} = \frac{\text{Fuel consumption (scfh)} \times \text{Measured fuel heating value (LHV btu/scf)}}{\text{Manufacturer's rated BSFC (btu/bhp-hr) at 100\% load or best efficiency}}$$

(1) The testing shall be conducted as follows:

- a. Testing frequency shall be once per year.
- b. The monitoring period is defined as a calendar year.

(2) The tests shall continue based on the existing testing schedule.

(3) All subsequent monitoring shall occur in each succeeding monitoring period. No two monitoring events shall occur closer together in time than 25% of a monitoring period.

(4) The permittee shall follow the General Testing Procedures of Section B111.

(5) Performance testing required by 40 CFR 60, Subpart JJJJ or IIII or 40 CFR 63, Subpart ZZZZ may be used to satisfy these periodic testing requirements if they meet the requirements of this condition and are completed during the specified monitoring period.

Recordkeeping: The permittee shall maintain records in accordance with Section B109, B110, and B111.

Reporting: The permittee shall report in accordance with Section B109, B110, and B111.

C. Hours of Operation (Units ENG-1 and CB SCRNG)

<p>Requirement: To ensure compliance with allowable emission limits in Table 106.A,</p> <ul style="list-style-type: none"> • Unit CB SCRNG shall not operate more than 4380 hours per year on in day lights hours as defined in C101 and per A603.B, and • Unit ENG-1 shall not operate more than 1,500 hours per year.
<p>Monitoring: The permittee shall monitor the dates and hours of operation for the unit.</p>
<p>Recordkeeping: The permittee shall record the hours of operation on a daily rolling 365-day total and meet the recordkeeping requirements in Section B109.</p>
<p>Reporting: The permittee shall report in accordance with Section B110.</p>

D. 40 CFR 60, Subpart III (Units CH SCRNG, CB SCRNG)

<p>Requirement: The units are subject to 40 CFR 60, Subparts A and III and shall comply with the notification requirements in Subpart A and the specific requirements of Subpart III.</p>
<p>Monitoring: The Permittee shall comply with all applicable monitoring requirements in 40 CFR 60, Subpart A and Subpart III, including but not limited to 60.4211.</p>
<p>Recordkeeping: The Permittee shall comply with all applicable recordkeeping requirements in 40 CFR 60, Subpart A and Subpart III, including but not limited to 60.4214.</p>
<p>Reporting: The Permittee shall comply with all applicable reporting requirements in 40 CFR 60, Subpart A and Subpart III, including but not limited to 60.4214.</p>

E. 40 CFR 63, Subpart ZZZZ (Units ENG-1, CB SCRNG, CH SCRNG)

<p>Requirement: These units are subject to 40 CFR 63, Subpart ZZZZ and the Permittee shall comply with all applicable requirements of 40 CFR 63, Subpart A and Subpart ZZZZ.</p>
<p>Monitoring: The Permittee shall comply with all applicable monitoring requirements of 40 CFR 63, Subpart A and Subpart ZZZZ.</p>
<p>Recordkeeping: The Permittee shall comply with all applicable recordkeeping requirements of 40 CFR 63, Subpart A and Subpart ZZZZ, including but not limited to 63.6655 and 63.10.</p>
<p>Reporting: The Permittee shall comply with all applicable reporting requirements of 40 CFR 63, Subpart A and ZZZZ, including but not limited to 63.6645, 63.6650, 63.9, and 63.10.</p>

F. Hours of Operation (Units CB SCRNG and CH SCRNG)

<p>Requirement: To ensure compliance with the permittee's representation of these units, hours of operation for these emergency generator engines must be less than 500 hours per year each.</p>
<p>Monitoring: The permittee shall monitor the dates and hours of operation for the units or install a non-resettable meter.</p>
<p>Recordkeeping: The permittee shall record the hours of operation, shall calculate and record</p>

the daily rolling 365-day total hours of operation, and shall meet the recordkeeping requirements in Section B109.

Reporting: The permittee shall report in accordance with Section B110.

A603 Screening Operations

A. Chino Mine Screening Production Limits, (Unit CH SCRN)

Requirement: Compliance with the particulate emissions limits in Table 106.A shall be demonstrated by limiting the process rate of the Chino Screening Plant to 1000 tons per hour and a monthly-rolling 12-month total of 1,404,000 tons per year. This production rate and configuration were specified in the permit application and used as the basis for the Department's modeling analysis which demonstrated that this operation neither causes nor contributes to any exceedances of applicable air quality standards.

Monitoring: The Permittee shall monitor:

- (1) Daily tons of material handled
- (2) Daily hours of operation
- (3) Tons per hour calculated based on the amount of material loaded into the screen and the number of hours that screening plant operated.

Recordkeeping: The Permittee shall maintain records in accordance with Section B109. The Permittee shall calculate and record the following in either computer generated or hand-written summaries supported by the data.

- (1) Daily tons of material handled
- (2) Daily hours of operation
- (3) tons per hour
- (4) the monthly rolling 12-month total tons per year material handled

Reporting: The Permittee shall report in accordance with Section B110.

B. Cobre Screening Material Handling Limits (Unit CB SCRN)

Requirement: Compliance with the particulate emissions limits in Table 106.A shall be demonstrated by limiting the material handling rate of a Cobre Mine screening plant, whether it is a contractor-owned plant or a Chino-owned plant, to 450 tons per hour or 1,346,800 tons per year and shall only operate in daylight hours as defined in C101. This production rate and configuration were specified in the permit application and used as the basis for the Department's ambient impact analysis to determine compliance with the applicable ambient air quality standards.

Monitoring: The Permittee shall monitor:

- (1) Daily tons of material handled;

- (2) Daily hours of operation to include start and end times for daylight hours;
- (3) Daily water application to meet emission limits per the Dust Control Plan;
- (4) The plant layout/configuration showing the number of material drops.

Recordkeeping: The Permittee shall maintain records in accordance with Section B109. The Permittee shall calculate and record the following in either computer generated or hand-written summaries supported by the data.

- (1) Daily tons of material processed
- (2) Daily hours of operation to include start and end times for daylight hours
- (3) Records of water application per the Dust Control Plan to include but not limited to weather conditions, amount or gallons per minute of water applied
- (4) the monthly rolling 12-month total tons per year production rate

Reporting: The Permittee shall report in accordance with Section B110.

C. White House Crusher/Screen Material Handling Limits (Unit WH Crush)

Requirement: Emission limits and the PSD minor source status of this facility were established by limiting the total material handling at the White House Crusher/Screen. Compliance with the particulate emissions limits in Table 106.A shall be demonstrated by limiting the material handling rate of a White House Crusher/Screen plant to 500 tons per hour and 4,380,000 tons per year and also by operating Unit WH only in daylight hours as defined in C101. This production rate and configuration were specified in the permit application and used as the basis for the Department's ambient impact analysis to determine compliance with the applicable ambient air quality standards.

Monitoring: The Permittee shall monitor:

- (1) Daily tons of material handled;
- (2) Daily hours of operation to include start and end times for daylight hours;
- (3) Daily water application to meet emission limits per the Dust Control Plan;
- (4) The plant layout/configuration showing the number of material drops.

Recordkeeping: The Permittee shall maintain records in accordance with Section B109. The Permittee shall calculate and record the following in either computer generated, or hand-written summaries supported by the data.

- (1) Daily tons of material processed
- (2) Daily hours of operation to include start and end times for daylight hours
- (3) Records of water application per the Dust Control Plan to include but not limited to weather conditions, amount or gallons per minute of water applied
- (4) the monthly rolling 12-month total tons per year production rate

Reporting: The Permittee shall report in accordance with Section B110.

D. 40 CFR 60, Subpart OOO (Unit WH Crush)

Requirement:

- (1) Affected facilities (Crushers, screens, and conveyors as defined in §§60.670 and 60.671) that commence construction, modification, or reconstruction on or after April 22, 2008, with a cumulative rated capacity of all initial crushers (can be fed without prior crushing) greater than 150 tons per hour of material for a portable source, and 25 ton per hour for a fixed source, are subject to NSPS, 40 CFR 60, Subpart A and Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants, and the permittee shall comply with both the notification requirements in Subpart A and the specific requirements in Subpart OOO.
- (2) Particulate emissions from NSPS affected transfer points, belt conveyors, screens or other affected facilities, as defined by Subpart OOO, Table 3 to Subpart OOO of Part 60—Fugitive Emission Limits, shall not exhibit greater than 7 % opacity. Particulate emissions from NSPS affected crushers shall not exhibit greater than 12 % opacity.
- (3) Particulate emissions from non-NSPS affected transfer points, belt conveyors, screens, feed bins, and from stockpiles shall not exhibit greater than 10% opacity. Particulate emissions from non-NSPS crushers shall not exhibit greater than 15% opacity

Monitoring:

- (1) Initial compliance tests for particulate matter shall be conducted in accordance with the procedures for opacity in Subpart A of 40 CFR 60 (60.11) and EPA test Methods 9 and 22 (if applicable), unless otherwise approved by the Department. Compliance tests shall determine the opacity at each crusher, screen, hopper, and conveyor transfer point, including transfers to stockpiles. For purposes of determining initial compliance, the minimum total time of observations shall be 3 hours (30 6-minute averages) for the performance test or other set of observations (meaning those fugitive-type emission sources subject only to an opacity standard).
- (2) The permittee shall perform a six minute opacity reading for each crusher, screen and stacker conveyor (material drop to storage pile) at least once per calendar month to demonstrate compliance with the opacity limitations in this permit. The test shall be done at the normal operational load of the facility. Compliance with this condition shall be determined by opacity test observations conducted in accordance with the procedures in 40 CFR 60.11 and Reference Method 9 in 40 CFR 60, Appendix A.
- (3) Additionally, if requested by the Department in writing, the permittee shall perform a six minute opacity reading for each transfer conveyor at least once per calendar month to demonstrate compliance with the opacity limitations in this permit. The test shall be done at the normal operational load of the facility. Compliance with this condition shall be determined by opacity test observations conducted in accordance with the procedures in 40 CFR 60.11 and Reference Method 9 in 40 CFR 60, Appendix A.

Recordkeeping: The permittee shall maintain records in accordance with Subpart OOO and Section B109.

Reporting: The permittee shall report in accordance with Section B110.

A604 Non-NSPS Affected Equipment

A. For equipment, not subject to any NSPS LL requirement and their emission calculation relied upon emission factors using controls, particulate matter emissions from *non-NSPS* affected transfer points, belt conveyors, and screens, shall not exhibit greater than 10% opacity. Particulate emissions from *non-NSPS* crushers shall not exhibit greater than 15% opacity.

B. Ongoing material handling opacity testing

<p>Requirement: The Permittee shall demonstrate ongoing compliance with the opacity limits of this permit.</p>
<p>Monitoring: The Permittee shall perform a 6-minute opacity reading for each crusher, screen and stacker conveyor (material drop to storage pile) at least once per calendar month in which the facility operates. If requested by the Department in writing, the Permittee shall perform additional monthly testing on each transfer conveyor as required above. The test will be used to demonstrate compliance with the opacity limitations in this permit. The test shall be done at the normal operational load of the facility. Compliance with this condition shall be determined by opacity test observations conducted in accordance with Reference Method 9 in 40 CFR Part 60, Appendix A.</p> <p>Method 22 in 40 CFR Part 60, Appendix A may be used in place of Method 9 if the applicant can demonstrate no visible emissions during the 6-minute visual emissions test. If visible emissions are observed, then the Permittee shall use Method 9.</p>
<p>Recordkeeping: The Permittee shall maintain records in accordance with Section B109.</p> <p>For any visible emissions observations conducted in accordance with EPA Method 22, record the information on the form referenced in EPA Method 22, Section 11.2.</p> <p>For any opacity observations conducted in accordance with the requirements of EPA Method 9, record the information on the form referenced in EPA Method 9, Sections 2.2 and 2.4.</p>
<p>Reporting: The Permittee shall report in accordance with Section B110.</p>

C. Daily inspection of water sprays (Units CH SCR N and CB SCR N)

<p>Requirement: If water sprays are installed, the Permittee shall inspect the water sprays to ensure that they are functioning properly (including, but not limited to spray bars are pointing in the right places, are not blocked or plugged, and are atomizing the water properly).</p>
<p>Monitoring: The Permittee shall daily inspect the water sprays to ensure they are controlling fugitive dust emissions.</p>
<p>Recordkeeping: A daily record shall be made of the inspection and any maintenance activity that resulted from the inspection. At a minimum, the record shall include the date, time, a description of any malfunction, and any corrective actions taken. The record shall be attached to a description of what shall be inspected, to ensure the inspector understands his or her responsibilities.</p>
<p>Reporting: The Permittee shall report in accordance with Section B110.</p>

A605 Ivanhoe Concentrator

- A. Production Limits (Units PC-01, PC DUMP, CV-01A, CTS-01, CV-01B, CV-01C, SAG-F1, IC-01, and SCDP)

<p>Requirement: Compliance with the allowable emissions limits in Table 106.A shall be demonstrated by limiting the hourly SAG feed belt material handling rate from the coarse ore stockpile into the concentrator circuit to 3,300 tons per hour.</p>
<p>Monitoring: The Permittee shall monitor the hourly material handling rate of the Primary Crusher and federate into the Ivanhoe Concentrator. The information monitored shall include the unit identification number, date, and the process rates.</p>
<p>Recordkeeping: The Permittee shall maintain records in accordance with Section B109. The records can be computer generated or hand-written summaries supported by the data.</p> <p>The Permittee shall record the date, time, and the tons per hour production rate for the Ivanhoe Concentrator for any requested period.</p>
<p>Reporting: The Permittee shall report in accordance with Section B110.</p>

- B. 40 CFR 60, Subpart LL Compliance (Units PC-01, PC DUMP, CV-01A, CTS-01, CV-01B, CV-01C, SAG-F1, IC-01, and SCDP)

<p>Requirement: Compliance with the allowable emissions limits in Table 106.A shall be demonstrated by complying with the requirements of 40 CFR 60, Subpart LL. 40 CFR 60, Subpart LL applies only to the specified Ivanhoe Concentrator affected facilities listed above. For an affected facility using a wet scrubber (Units IC-01, LUH-01, and LHS-01), the scrubber shall be equipped with pressure gauges to measure pressure drop across the control device. Wet scrubbing systems shall be equipped with a continuous monitoring device to measure the scrubbing liquid flow rate. Pressure gauges and monitoring devices shall be installed, calibrated, maintained, and operated in accordance with the manufacturer specifications. Compliance with this will be based on Department inspections of the facility to verify that instruments have been installed and of the records as set forth in 40CFR60, Subpart LL.</p>
<p>Monitoring: The Permittee shall comply with the applicable monitoring requirements of 40 CFR 60, Subpart LL.</p>
<p>Recordkeeping: The Permittee shall comply with the applicable recordkeeping requirements as set forth in 40CFR60, Subpart LL shown here:</p> <p>(1) The Owner/Operator shall record the results of the performance tests as specified in 40 CFR §60.8(a).</p> <p>(2) For an affected facility using a wet scrubber (Units IC-01, LUH-01, and LHS-01), the Owner/Operator shall record the measurements of change in pressure of the gas stream across the scrubber and scrubbing fluid flow rate weekly.</p> <p>(3) The Owner/Operator shall record occurrences when the measurements of the scrubber pressure loss (or gain) or liquid flow rate differ by more than ±30 % from the average obtained</p>

<p>from the most recent performance test.</p>
<p>Reporting: The Permittee shall submit reports as required by 40CFR60, Subpart A and/or Subpart LL.</p> <p>(1) The Owner/Operator shall submit a written report of the results of the performance tests as specified in 40 CFR §60.8(a).</p> <p>(2) The Owner/Operator shall submit semiannual reports of occurrences when the measurements of the scrubber pressure loss (or gain) or liquid flow rate differ by more than $\pm 30\%$ from the average obtained from the most recent performance test. These reports shall be postmarked within 30 days following the end of June and December.</p>

A606 Chino Mine Blasting Operations

A. Chino Mine Blasting (Unit CM BLST)

<p>Requirement: To demonstrate compliance with the allowable emission limits in Table 106.A, the Permittee shall not exceed the consumption of ammonium nitrate blasting agents (ANBA) of fifty-two thousand (52,000) tons per year in the blasting operation and four hundred thousand (400,000) pounds per day. Blasting shall only occur during daylight hours as defined at C101.A.</p>
<p>Monitoring: The Permittee shall monitor the pounds per day and tons per year of ANBA used.</p>
<p>Recordkeeping: The Permittee shall maintain records in accordance with Section B109. The Permittee shall calculate and record the following in either computer generated or hand-written summaries supported by the data.</p> <p>(1) the date and time of each blast</p> <p>(2) the pounds per day (ppd) and monthly total of ANBA used</p> <p>(3) monthly the calculated emissions in pph and tpy</p> <p>(4) the monthly rolling 12-month total tons per year of ANBA used.</p>
<p>Reporting: The Permittee shall report in accordance with Section B110.</p>

B. Cobre Mine Blasting (Unit CBM BLST)

<p>Requirement: Compliance with the allowable emission limits in Table 106.A shall be demonstrated by not exceeding the consumption of ANBA of fourteen thousand three hundred (14,300) tons per year in the blasting operation and one hundred ten thousand (110,000) pounds per day. Blasting shall only occur during daylight hours as defined at C101.A.</p>
<p>Monitoring: The Permittee shall monitor the pounds per day and tons per year of ANBA used.</p>
<p>Recordkeeping: The Permittee shall maintain records in accordance with Section B109. The Permittee shall calculate and record the following in either computer generated or hand-written summaries supported by the data.</p> <p>(1) the date and time of each blast</p>

- (2) the pounds per day (ppd) and monthly total of ANBA used
- (3) monthly the calculated emissions in pph and tpy
- (4) the monthly rolling 12-month total tons per year of ANBA used.

Reporting: The Permittee shall report in accordance with Section B110.

C. Cobre Haul Road Borrow Pit Blasting (Unit BORR BLST)

Requirement: To demonstrate compliance with the allowable emission limits in Table 106.A, the Permittee shall not exceed the consumption of ammonium nitrate blasting agents (ANBA) of One hundred and nineteen thousand, seven hundred (119,700) tons per day and year in the blasting operation and twenty-nine thousand, nine hundred twenty-five (29,925) pounds per blast. Blasting shall only occur during daylight hours as defined at C101.A. These blasts are to occur for the construction of this borrow pit and are not to be continuous nor are they to be completed during other blasting events at the facility.

Monitoring: The Permittee shall monitor the pounds per day and tons per year of ANBA used.

Recordkeeping: The Permittee shall maintain records in accordance with Section B109. The Permittee shall calculate and record the following in either computer generated or hand-written summaries supported by the data.

- (1) the date and time of each blast
- (2) the pounds per day (ppd) and monthly total of ANBA used
- (3) monthly the calculated emissions in pph and tpy
- (4) the monthly rolling 12-month total tons per year of ANBA used.

Reporting: The Permittee shall report in accordance with Section B110.

A607 Gasoline Dispensing Facilities (GDF)

A. 40 CFR 63, Subpart CCCCCC, Gasoline Dispensing Facilities (Unit GDF, 4 tanks)

Requirement: Compliance with the allowable emissions limits in Table 106.A shall be demonstrated by complying with the requirements of 40 CFR 63, Subpart CCCCCC. Each GDF is located at an area source. The affected source includes each gasoline cargo tank during the delivery of product to a GDF and also includes each storage tank. The GDFs are subject to 40 CFR 63, Subparts A and CCCCCC.

Monitoring: The Permittee shall comply with all applicable monitoring requirements in 40 CFR 63, Subpart A and Subpart CCCCCC.

Recordkeeping: The Permittee shall comply with all applicable recordkeeping requirements in 40 CFR 63, Subpart A and Subpart CCCCCC.

Reporting: The Permittee is not subject to the reporting or notification requirements in 40 CFR 63, Subpart A and Subpart CCCCCC.

A608 Solvent Extraction – Electro-winning (SX/EW) Plant

- A. The SX/EW Plant shall consist of the following equipment: ten mixer/settler tanks (Unit SXEW 10MST), six for extraction (surface area of 39,000 sqft ±10%) and four for stripping (surface area of 39,104 sqft ±10%), an open 900,000 gallon raffinate tank (Unit SXEW RT with a surface area of 5,024 sqft ±10%), an open 2 million gallon acid tankhouse (Unit SXEW SAT) and five water boilers (Units SXEW Boiler No 1, No 2, and No 3).
- B. The Department approves of the emissions estimates that were based on the study, BHP Copper - Quantification of Volatile Organic Compound Emissions From The Solution Extraction Process (BHP Method). The physical conditions of this facility must be similar to those described in the study. Specifically, the mixer/settler tanks shall be covered in order to minimize the velocity of air flow across the liquid surface of the tanks.
- C. Units SXEW 10MST, SXEW RT, and SXEW SAT

Requirement: Compliance with the emission limits in Table 106.A shall be demonstrated by accomplishing the following:

(1) The Permittee shall use any combination of the following products: Acorga M5910, M5640, OR25, COGNIS LIX684N-LV, as the extraction reagent, and Penreco 170ES, Escaid 110, Escaid 115, ORFOM SX-80 as the organic diluent, or equivalents. Before using equivalents, the Permittee shall notify the Department’s Permitting Program Manager, in writing of, or provide the Department with any necessary update or correction no more than sixty (60) days after the operator knows or should have known of the condition necessitating the update or correction of the permit.

(2) Each month, the permittee shall calculate VOC and HAP emissions and the rolling 12-month tpy VOC and HAP emissions. Each month, the permittee shall calculate NM TAP pph emissions.

Monitoring: The Permittee shall monitor the types of the diluent and extraction reagent used and the dates any changes are made.

Recordkeeping: In accordance with Section B109 of this permit the operating logs and records of the following information shall be kept for each diluent and extraction reagents:

(1) the diluent and extraction reagent types used, Safety Data Sheets (SDS), and the dates any changes are made between diluents and extraction reagents allowed by this permit; and

(2) the composition, including but not limited to the molecular weight, HAP constituents, vapor pressure and diffusivity coefficient.

(3) The Permittee shall calculate each TAPs pph emission rate and certify that no thresholds of New Mexico Toxic Air Pollutants (20.2.72.400 NMAC) are exceeded.

(4) For each unit, records shall be kept of VOC and HAP tpy emission rates used to calculate the rolling 12-month total tpy emissions. For each unit, records shall be kept of the name of each

NM TAP and pph emissions.

Reporting: Reporting and product approval shall be in accordance with Section B110.
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A609 Fugitive Dust

A. Fugitive Dust Control Plan (FDCP)

Requirement: The Permittee shall follow their Fugitive Dust Control Plan (FDCP) for minimizing emissions from areas such as aggregate feeders, bins, bin scales, storage pile, overburden removal, disturbed earth, buildings, truck loading/unloading, active pits, or tailing impoundments (Units CBM TLNGS and CM TLNGS) that are not subject to 40 CFR 60, Subpart LL.

At a minimum, sites of overburden removal and active pit areas shall be watered, as necessary to minimize dust emissions. Stock piles shall be maintained with standard industry practices and procedures to minimize fugitive emissions to the atmosphere.

Monitoring: Once each calendar month, the Permittee shall inspect each area to ensure that fugitive dust is being minimized and determine if the FDCP plan needs updating.

Recordkeeping: Monthly, the Permittee shall make a record of each monthly inspection and revise the plan to address past shortcomings as well as future activities. If no changes are needed, then the Permittee shall make a record that the plan needs no changes.

The Permittee shall make a record of any action taken to minimize emissions as a result of the FDCP or monthly inspections.

Reporting: The Permittee shall report in accordance with Section B110.

B. Filter/Blending Plant Production Limits (Unit FLTR/BLND)

Requirement:

To demonstrate compliance with the allowable limits in Table 106.A, the Permittee shall not exceed a processing rate of 360,800 tons per year of concentrate (dry tons) through the Filter/Blending plant.

Monitoring: The Permittee shall monitor:

- (1) Daily tons of material processed for either conveyance or front-end loader;
- (2) Daily rolling 365-day total throughput of concentrate.

Recordkeeping: The Permittee shall maintain records in accordance with Section B109. The Permittee shall calculate and record the following in either computer generated or hand-written summaries supported by the data.
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- (1) Daily tons of material processed.
- (2) Daily rolling 365-day total throughput of concentrate.

Reporting: The Permittee shall report in accordance with Section B110.

C. Quicklime Slaking Mill (Unit LmSlk)

Requirement: Compliance with the emission limits in Table 106.A shall be demonstrated by accomplishing the following:

(1) Process water shall be continuously added to the slaking operation while the mill is in operation. The Slaker Operation includes the Mill (Unit LMSlk), the water pump powered by a diesel engine (Unit ENG-1). The Mill operation is limited by the 1,500 hours authorized for Unit ENG-1.

(2) The maximum process rates shall not exceed 100 tons per day, and 9,125 tons per year.

Monitoring: Once each calendar month, the Permittee shall record the run-time hours of Unit ENG-1 and the tons of lime delivery using weigh scale tickets. The permittee shall calculate the tons per year based on a monthly rolling 12-month total.

Recordkeeping: Monthly, the Permittee shall make a record of run-time hours for Unit ENG-1 and total tons of lime delivered and used.

Reporting: The Permittee shall report in accordance with Section B110.

PART B GENERAL CONDITIONS (Attached)

PART C MISCELLANEOUS: Supporting On-Line Documents; Definitions; Acronyms (Attached)

**AIR QUALITY BUREAU
NEW SOURCE REVIEW PERMIT
Issued under 20.2.72 NMAC**

GENERAL CONDITIONS AND MISCELLANEOUS

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PART B GENERAL CONDITIONS**B100 Introduction**

- A. The Department has reviewed the permit application for the proposed construction/modification/revision and has determined that the provisions of the Act and ambient air quality standards will be met. Conditions have been imposed in this permit to assure continued compliance. 20.2.72.210.D NMAC, states that any term or condition imposed by the Department on a permit is enforceable to the same extent as a regulation of the Environmental Improvement Board.

B101 Legal

- A. The contents of a permit application specifically identified by the Department shall become the terms and conditions of the permit or permit revision. Unless modified by conditions of this permit, the permittee shall construct or modify and operate the Facility in accordance with all representations of the application and supplemental submittals that the Department relied upon to determine compliance with applicable regulations and ambient air quality standards. If the Department relied on air quality modeling to issue this permit, any change in the parameters used for this modeling shall be submitted to the Department for review. Upon the Department's request, the permittee shall submit additional modeling for review by the Department. Results of that review may require a permit modification. (20.2.72.210.A NMAC)
- B. Any future physical changes, changes in the method of operation or changes in restricted area may constitute a modification as defined by 20.2.72 NMAC, Construction Permits. Unless the source or activity is exempt under 20.2.72.202 NMAC, no modification shall begin prior to issuance of a permit. (20.2.72 NMAC Sections 200.A.2 and E, and 210.B.4)
- C. Changes in plans, specifications, and other representations stated in the application documents shall not be made if they cause a change in the method of control of emissions or in the character of emissions, will increase the discharge of emissions or affect modeling results. Any such proposed changes shall be submitted as a revision or modification. (20.2.72 NMAC Sections 200.A.2 and E, and 210.B.4)
- D. The permittee shall establish and maintain the property's Restricted Area as identified in plot plan submitted with the application. (20.2.72 NMAC Sections 200.A.2 and E, and 210.B.4)
- E. Applications for permit revisions and modifications shall be submitted to:
Program Manager, Permits Section
New Mexico Environment Department

Air Quality Bureau
525 Camino de los Marquez, Suite 1
Santa Fe, NM 87505

- F. The owner or operator of a source having an excess emission shall, to the extent practicable, operate the source, including associated air pollution control equipment, in a manner consistent with good air pollutant control practices for minimizing emissions. (20.2.7.109 NMAC). The establishment of allowable malfunction emission limits does not supersede this requirement.

B102 Authority

- A. This permit is issued pursuant to the Air Quality Control Act (Act) and regulations adopted pursuant to the Act including Title 20, Chapter 2, Part 72 of the New Mexico Administrative Code (NMAC), (20.2.72 NMAC), Construction Permits and is enforceable pursuant to the Act and the air quality control regulations applicable to this source.
- B. The Department is the Administrator for 40 CFR Parts 60, 61, and 63 pursuant to the delegation and exceptions of Section 10 of 20.2.77 NMAC (NSPS), 20.2.78 NMAC (NESHAP), and 20.2.82 NMAC (MACT).

B103 Annual Fee

- A. The Department will assess an annual fee for this Facility. The regulation 20.2.75 NMAC set the fee amount at \$1,500 through 2004 and requires it to be adjusted annually for the Consumer Price Index on January 1. The current fee amount is available by contacting the Department or can be found on the Department's website. The AQB will invoice the permittee for the annual fee amount at the beginning of each calendar year. This fee does not apply to sources which are assessed an annual fee in accordance with 20.2.71 NMAC. For sources that satisfy the definition of "small business" in 20.2.75.7.F NMAC, this annual fee will be divided by two. (20.2.75.11 NMAC)
- B. All fees shall be remitted in the form of a corporate check, certified check, or money order made payable to the "NM Environment Department, AQB" mailed to the address shown on the invoice and shall be accompanied by the remittance slip attached to the invoice.

B104 Appeal Procedures

- A. Any person who participated in a permitting action before the Department and who is adversely affected by such permitting action, may file a petition for hearing before the Environmental Improvement Board. The petition shall be made in writing to the

Environmental Improvement Board within thirty (30) days from the date notice is given of the Department's action and shall specify the portions of the permitting action to which the petitioner objects, certify that a copy of the petition has been mailed or hand-delivered and attach a copy of the permitting action for which review is sought. Unless a timely request for hearing is made, the decision of the Department shall be final. The petition shall be copied simultaneously to the Department upon receipt of the appeal notice. If the petitioner is not the applicant or permittee, the petitioner shall mail or hand-deliver a copy of the petition to the applicant or permittee. The Department shall certify the administrative record to the board. Petitions for a hearing shall be sent to: (20.2.72.207.F NMAC)

For Mailing:

Administrator, New Mexico Environmental Improvement Board
P.O. Box 5469
Santa Fe, NM 87502-5469

For Hand Delivery:

Administrator, New Mexico Environmental Improvement Board
1190 St. Francis Drive, Harold Runnels Bldg.
Santa Fe, New Mexico 87505

B105 Submittal of Reports and Certifications

- A. Stack Test Protocols and Stack Test Reports shall be submitted electronically to Stacktest.AQB@state.nm.us or as directed by the Department.
- B. Excess Emission Reports shall be submitted as directed by the Department. (20.2.7.110 NMAC)
- C. Routine reports shall be submitted to the mailing address below, or as directed by the Department:

Manager, Compliance and Enforcement Section
New Mexico Environment Department
Air Quality Bureau
525 Camino de los Marquez, Suite 1
Santa Fe, NM 87505

B106 NSPS and/or MACT Startup, Shutdown, and Malfunction Operations

- A. If a facility is subject to a NSPS standard in 40 CFR 60, each owner or operator that installs and operates a continuous monitoring device required by a NSPS regulation shall comply with the excess emissions reporting requirements in accordance with 40 CFR 60.7(c), unless specifically exempted in the applicable subpart.

- B. If a facility is subject to a NSPS standard in 40 CFR 60, then in accordance with 40 CFR 60.8(c), emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction shall not be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.
- C. If a facility is subject to a MACT standard in 40 CFR 63, then the facility is subject to the requirement for a Startup, Shutdown and Malfunction Plan (SSM) under 40 CFR 63.6(e)(3), unless specifically exempted in the applicable subpart.

B107 Startup, Shutdown, and Maintenance Operations

- A. The establishment of permitted startup, shutdown, and maintenance (SSM) emission limits does not supersede the requirements of 20.2.7.14.A NMAC. Except for operations or equipment subject to Condition B106, the permittee shall establish and implement a plan to minimize emissions during routine or predictable start up, shut down, and scheduled maintenance (SSM work practice plan) and shall operate in accordance with the procedures set forth in the plan. (SSM work practice plan) (20.2.7.14.A NMAC)

B108 General Monitoring Requirements

- A. These requirements do not supersede or relax requirements of federal regulations.
- B. The following monitoring requirements shall be used to determine compliance with applicable requirements and emission limits. Any sampling, whether by portable analyzer or EPA reference method, that measures an emission rate over the applicable averaging period greater than an emission limit in this permit constitutes noncompliance with this permit. The Department may require, at its discretion, additional tests pursuant to EPA Reference Methods at any time, including when sampling by portable analyzer measures an emission rate greater than an emission limit in this permit; but such requirement shall not be construed as a determination that the sampling by portable analyzer does not establish noncompliance with this permit and shall not stay enforcement of such noncompliance based on the sampling by portable analyzer.
- C. If the emission unit is shutdown at the time when periodic monitoring is due to be completed, the permittee is not required to restart the unit for the sole purpose of conducting the monitoring. Using electronic or written mail, the permittee shall notify the Department's Compliance and Enforcement Section of a delay in emission tests prior to the deadline for completing the tests. Upon recommencing operation, the permittee shall submit pre-test notification(s) to the Department's Compliance and Enforcement Section and shall complete the monitoring.

- D. The requirement for monitoring during any monitoring period is based on the percentage of time that the unit has operated. However, to invoke the monitoring period exemption at B108.D(2), hours of operation shall be monitored and recorded.
- (1) If the emission unit has operated for more than 25% of a monitoring period, then the permittee shall conduct monitoring during that period.
 - (2) If the emission unit has operated for 25% or less of a monitoring period then the monitoring is not required. After two successive periods without monitoring, the permittee shall conduct monitoring during the next period regardless of the time operated during that period, except that for any monitoring period in which a unit has operated for less than 10% of the monitoring period, the period will not be considered as one of the two successive periods.
 - (3) If invoking the monitoring **period** exemption in B108.D(2), the actual operating time of a unit shall not exceed the monitoring period required by this permit before the required monitoring is performed. For example, if the monitoring period is annual, the operating hours of the unit shall not exceed 8760 hours before monitoring is conducted. Regardless of the time that a unit actually operates, a minimum of one of each type of monitoring activity shall be conducted during any five-year period.
- E. For all periodic monitoring events, except when a federal or state regulation is more stringent, three test runs shall be conducted at 90% or greater of the unit's capacity as stated in this permit, or in the permit application if not in the permit, and at additional loads when requested by the Department. If the 90% capacity cannot be achieved, the monitoring will be conducted at the maximum achievable load under prevailing operating conditions except when a federal or state regulation requires more restrictive test conditions. The load and the parameters used to calculate it shall be recorded to document operating conditions and shall be included with the monitoring report.
- F. When requested by the Department, the permittee shall provide schedules of testing and monitoring activities. Compliance tests from previous NSR and Title V permits may be re-imposed if it is deemed necessary by the Department to determine whether the source is in compliance with applicable regulations or permit conditions.
- G. If monitoring is new or is in addition to monitoring imposed by an existing applicable requirement, it shall become effective 120 days after the date of permit issuance. For emission units that have not commenced operation, the associated new or additional monitoring shall not apply until 120 days after the units commence operation. All pre-existing monitoring requirements incorporated in this permit shall continue to apply from the date of permit issuance.
- H. Unless otherwise indicated by Specific Conditions or regulatory requirements, all instrumentation used for monitoring in accordance with applicable requirements including emission limits, to measure parameters including but not limited to flow, temperature, pressure and chemical composition, or used to continuously monitor

emission rates and/or other process operating parameters, shall be subject to the following requirements:

- (1) The owner or operator shall install, calibrate, operate and maintain monitoring instrumentation (monitor) according to the manufacturer's procedures and specifications and the following requirements.
 - (a) The monitor shall be located in a position that provides a representative measurement of the parameter that is being monitored.
 - (b) At a minimum, the monitor shall complete one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.
 - (c) At a minimum, the monitor shall be spanned to measure the normal range +/- 5% of the parameter that is being monitored.
 - (d) At least semi-annually, perform a visual inspection of all components of the monitor for physical and operational integrity and all electrical connections for oxidation and galvanic corrosion.
 - (e) Recalibrate the monitor in accordance with the manufacturer's procedures and specifications at the frequency specified by the manufacturer, or every two years, whichever is less.
- (2) Except for malfunctions, associated repairs, and required quality assurance or control activities (including calibration checks and required zero and span adjustments), the permittee shall operate and maintain all monitoring equipment at all times that the emissions unit or the associated process is operating.
- (3) The monitor shall measure data for a minimum of 90 percent of the time that the emissions unit or the associated process is in operation, based on a calendar monthly average.
- (4) The owner or operator shall maintain records in accordance with Section B109 to demonstrate compliance with the requirements in B108H (1)-(3) above, as applicable.

B109 General Recordkeeping Requirements

- A. The permittee shall maintain records to assure and verify compliance with the terms and conditions of this permit and any other applicable requirements that become effective after permit issuance. The minimum information to be included in these records is as follows:
 - (1) Records required for testing and sampling:
 - (a) equipment identification (include make, model and serial number for all tested equipment and emission controls)
 - (b) date(s) and time(s) of sampling or measurements
 - (c) date(s) analyses were performed

- (d) the qualified entity that performed the analyses
 - (e) analytical or test methods used
 - (f) results of analyses or tests
 - (g) operating conditions existing at the time of sampling or measurement
- (2) Records required for equipment inspections and/or maintenance required by this permit:
- (a) equipment identification number (including make, model and serial number)
 - (b) date(s) and time(s) of inspection, maintenance, and/or repair
 - (c) date(s) any subsequent analyses were performed (if applicable)
 - (d) name of the person or qualified entity conducting the inspection, maintenance, and/or repair
 - (e) copy of the equipment manufacturer's or the owner or operator's maintenance or repair recommendations (if required to demonstrate compliance with a permit condition)
 - (f) description of maintenance or repair activities conducted
 - (g) all results of any required parameter readings
 - (h) a description of the physical condition of the equipment as found during any required inspection
 - (i) results of required equipment inspections including a description of any condition which required adjustment to bring the equipment back into compliance and a description of the required adjustments
- B. Except as provided in the Specific Conditions, records shall be maintained on-site or at the permittee's local business office for a minimum of two (2) years from the time of recording and shall be made available to Department personnel upon request. Sources subject to 20.2.70 NMAC "Operating Permits" shall maintain records on-site for a minimum of five (5) years from the time of recording.
- C. Unless otherwise indicated by Specific Conditions, the permittee shall keep the following records for malfunction emissions and routine or predictable emissions during startup, shutdown, and scheduled maintenance (SSM):
- (1) The owner or operator of a source subject to a permit shall establish and implement a plan to minimize emissions during routine or predictable startup, shutdown, and scheduled maintenance through work practice standards and good air pollution control practices. This requirement shall not apply to any affected facility defined in and subject to an emissions standard and an equivalent plan under 40 CFR Part 60 (NSPS), 40 CFR Part 63 (MACT), or an equivalent plan under 20.2.72 NMAC - Construction Permits, 20.2.70 NMAC - Operating Permits, 20.2.74 NMAC -

Permits - Prevention of Significant Deterioration (PSD), or 20.2.79 NMAC - Permits - Nonattainment Areas. The permittee shall keep records of all sources subject to the plan to minimize emissions during routine or predictable SSM and shall record if the source is subject to an alternative plan and therefore, not subject to the plan requirements under 20.2.7.14.A NMAC.

- (2) If the facility has allowable SSM emission limits in this permit, the permittee shall record all SSM events, including the date, the start time, the end time, a description of the event, and a description of the cause of the event. This record also shall include a copy of the manufacturer's, or equivalent, documentation showing that any maintenance qualified as scheduled. Scheduled maintenance is an activity that occurs at an established frequency pursuant to a written protocol published by the manufacturer or other reliable source. The authorization of allowable SSM emissions does not supersede any applicable federal or state standard. The most stringent requirement applies.
- (3) If the facility has allowable malfunction emission limits in this permit, the permittee shall record all malfunction events to be applied against these limits. The permittee shall also include the date, the start time, the end time, and a description of the event. **Malfunction means** any sudden and unavoidable failure of air pollution control equipment or process equipment beyond the control of the owner or operator, including malfunction during startup or shutdown. A failure that is caused entirely or in part by poor maintenance, careless operation, or any other preventable equipment breakdown shall not be considered a malfunction. (20.2.7.7.E NMAC) The authorization of allowable malfunction emissions does not supersede any applicable federal or state standard. The most stringent requirement applies. This authorization only allows the permittee to avoid submitting reports under 20.2.7 NMAC for total annual emissions that are below the authorized malfunction emission limit.
- (4) The owner or operator of a source shall meet the operational plan defining the measures to be taken to mitigate source emissions during malfunction, startup or shutdown. (20.2.72.203.A(5) NMAC)

B110 General Reporting Requirements

(20.2.72 NMAC Sections 210 and 212)

- A. Records and reports shall be maintained on-site or at the permittee's local business office unless specifically required to be submitted to the Department or EPA by another condition of this permit or by a state or federal regulation. Records for unmanned sites may be kept at the nearest business office.
- B. The permittee shall notify the Department's Compliance Reporting Section using the current Submittal Form posted to NMED's Air Quality web site under Compliance and Enforcement/Submittal Forms in writing of, or provide the Department with (20.2.72.212.A and B):

- (1) the anticipated date of initial startup of each new or modified source not less than thirty (30) days prior to the date. Notification may occur prior to issuance of the permit, but actual startup shall not occur earlier than the permit issuance date;
 - (2) after receiving authority to construct, the equipment serial number as provided by the manufacturer or permanently affixed if shop-built and the actual date of initial startup of each new or modified source within fifteen (15) days after the startup date; and
 - (3) the date when each new or modified emission source reaches the maximum production rate at which it will operate within fifteen (15) days after that date.
- C. The permittee shall notify the Department's Permitting Program Manager, in writing of, or provide the Department with (20.2.72.212.C and D):
- (1) any change of operators or any equipment substitutions within fifteen (15) days of such change;
 - (2) any necessary update or correction no more than sixty (60) days after the operator knows or should have known of the condition necessitating the update or correction of the permit.
- D. Results of emission tests and monitoring for each pollutant (except opacity) shall be reported in pounds per hour (unless otherwise specified) and tons per year. Opacity shall be reported in percent. The number of significant figures corresponding to the full accuracy inherent in the testing instrument or Method test used to obtain the data shall be used to calculate and report test results in accordance with 20.2.1.116.B and C NMAC. Upon request by the Department, CEMS and other tabular data shall be submitted in editable, MS Excel format.
- E. The permittee shall submit reports of excess emissions in accordance with 20.2.7.110.A NMAC.
- F. Allowable Emission Limits for Excess Emissions Reporting for Flares and Other Regulated Sources with No Pound per Hour (pph) and/or Ton per Year (tpy) Emission Limits.
- (1) When a flare has no allowable pph and/or tpy emission limits in Sections A106 and/or A107, the authorized allowable emissions include only the combustion of pilot and/or purge gas. Compliance is demonstrated by limiting the gas stream to the flare to only pilot and/or purge gas.
 - (2) For excess emissions reporting as required by 20.2.7 NMAC, the allowable emission limits are 1.0 pph and 1.0 tpy for each regulated air pollutant (except for H₂S) emitted by that source as follows:
 - (a) For flares, when there are no allowable emission limits in Sections A106 and/or A107.

- (b) For regulated sources with emission limits in Sections A106 or A107 represented by the less than sign (“<”).
 - (c) For regulated sources that normally would not emit any regulated air pollutants, including but not limited to vents, pressure relief devices, connectors, etc.
- (3) For excess emissions reporting as required by 20.2.7 NMAC for H₂S, the allowable limits are 0.1 pph and 0.44 tpy for each applicable scenario addressed in paragraph (2) above.

B111 General Testing Requirements

Unless otherwise indicated by Specific Conditions or regulatory requirements, the permittee shall conduct testing in accordance with the requirements in Sections B111A, B, C, D and E, as applicable.

A. Initial Compliance Tests

The permittee shall conduct initial compliance tests in accordance with the following requirements:

- (1) Initial compliance test requirements from previous permits (if any) are still in effect, unless the tests have been satisfactorily completed. Compliance tests may be re-imposed if it is deemed necessary by the Department to determine whether the source is in compliance with applicable regulations or permit conditions. (20.2.72 NMAC Sections 210.C and 213)
- (2) Initial compliance tests shall be conducted within sixty (60) days after the unit(s) achieve the maximum normal production rate. If the maximum normal production rate does not occur within one hundred twenty (120) days of source startup, then the tests must be conducted no later than one hundred eighty (180) days after initial startup of the source.
- (3) The default time period for each test run shall be **at least** 60 minutes and each performance test shall consist of three separate runs using the applicable test method. For the purpose of determining compliance with an applicable emission limit, the arithmetic mean of results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances, beyond the owner or operator's control, compliance may, upon the Department approval, be determined using the arithmetic mean of the results of the two other runs.
- (4) Testing of emissions shall be conducted with the emissions unit operating at 90 to 100 percent of the maximum operating rate allowed by the permit. If it is not possible to test at that rate, the source may test at a lower operating rate

- (5) Testing performed at less than 90 percent of permitted capacity will limit emission unit operation to 110 percent of the tested capacity until a new test is conducted.
- (6) If conditions change such that unit operation above 110 percent of tested capacity is possible, the source must submit a protocol to the Department within 30 days of such change to conduct a new emissions test.

B. EPA Reference Method Tests

The test methods in Section B111.B(1) shall be used for all initial compliance tests and all Relative Accuracy Test Audits (RATAs), and shall be used if a permittee chooses to use EPA test methods for periodic monitoring. Test methods that are not listed in Section B111.B(1) may be used in accordance with the requirements at Section B111.B(2).

- (1) All compliance tests required by this permit shall be conducted in accordance with the requirements of CFR Title 40, Part 60, Subpart A, General Provisions, and the following EPA Reference Methods as specified by CFR Title 40, Part 60, Appendix A:
 - (a) Methods 1 through 4 for stack gas flowrate
 - (b) Method 5 for particulate matter (PM)
 - (c) Method 6C SO₂
 - (d) Method 7E for NO_x (test results shall be expressed as nitrogen dioxide (NO₂) using a molecular weight of 46 lb/lb-mol in all calculations (each ppm of NO/NO₂ is equivalent to 1.194 x 10⁻⁷ lb/SCF)
 - (e) Method 9 for visual determination of opacity
 - (f) Method 10 for CO
 - (g) Method 19 for particulate, sulfur dioxide and nitrogen oxides emission rates. In addition, Method 19 may be used in lieu of Methods 1-4 for stack gas flowrate. The permittee shall provide a contemporaneous fuel gas analysis (preferably on the day of the test, but no earlier than three months prior to the test date) and a recent fuel flow meter calibration certificate (within the most recent quarter) with the final test report.
 - (h) Method 7E or 20 for Turbines per §60.335 or §60.4400
 - (i) Method 22 for visual determination of fugitive emissions from material sources and smoke emissions from flares
 - (j) Method 25A for VOC reduction efficiency
 - (k) Method 29 for Metals
 - (l) Method 30B for Mercury from Coal-Fired Combustion Sources Using Carbon Sorbent Traps
 - (m) Method 201A for filterable PM₁₀ and PM_{2.5}

- (n) Method 202 for condensable PM
 - (o) Method 320 for organic Hazardous Air Pollutants (HAPs)
 - (2) Permittees may propose test method(s) that are not listed in Section B111.B(1). These methods may be used if prior approval is received from the Department.
- C. Periodic Monitoring and Portable Analyzer Requirements for the Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Concentrations in Emissions from Reciprocating Engines, Combustion Turbines, Boilers, and Process Heaters
- Periodic emissions tests (periodic monitoring) shall be conducted in accordance with the following requirements:
- (1) Periodic emissions tests may be conducted in accordance with EPA Reference Methods or by utilizing a portable analyzer. Periodic monitoring utilizing a portable analyzer shall be conducted in accordance with the requirements of the current version of ASTM D 6522. However, if a facility has met a previously approved Department criterion for portable analyzers, the analyzer may be operated in accordance with that criterion until it is replaced.
 - (2) The default time period for each test run shall be **at least** 20 minutes.
Each performance test shall consist of three separate runs. The arithmetic mean of results of the three runs shall be used to determine compliance with the applicable emission limit.
 - (3) Testing of emissions shall be conducted in accordance with the requirements at Section B108.E.
 - (4) During emissions tests, pollutant and diluent concentration shall be monitored and recorded. Fuel flow rate shall be monitored and recorded if stack gas flow rate is determined utilizing Reference Method 19. This information shall be included with the test report furnished to the Department.
 - (5) Stack gas flow rate shall be calculated in accordance with Reference Method 19 utilizing fuel flow rate (scf) determined by a dedicated fuel flow meter and fuel heating value (Btu/scf). The permittee shall provide a contemporaneous fuel gas analysis (preferably on the day of the test, but no earlier than three months prior to the test date) and a recent fuel flow meter calibration certificate (within the most recent quarter) with the final test report. Alternatively, stack gas flow rate may be determined by using EPA Reference Methods 1-4.
 - (6) The permittee shall submit a notification and protocol for periodic emissions tests upon the request of the Department.
- D. Initial Compliance Test and RATA Procedures
- Permittees required to conduct initial compliance tests and/or RATAs shall comply with the following requirements:

- (1) The permittee shall submit a notification and test protocol to the Department's Program Manager, Compliance and Enforcement Section, at least thirty (30) days before the test date and allow a representative of the Department to be present at the test. Proposals to use test method(s) that are not listed in Section B111.B(1) (if applicable) shall be included in this notification.
- (2) Contents of test notifications, protocols and test reports shall conform to the format specified by the Department's Universal Test Notification, Protocol and Report Form and Instructions. Current forms and instructions are posted to NMED's Air Quality web site under Compliance and Enforcement Testing.
- (3) The permittee shall provide (a) sampling ports adequate for the test methods applicable to the facility, (b) safe sampling platforms, (c) safe access to sampling platforms and (d) utilities for sampling and testing equipment.
- (4) Where necessary to prevent cyclonic flow in the stack, flow straighteners shall be installed

E. General Compliance Test Procedures

The following requirements shall apply to all initial compliance and periodic emissions tests and all RATAs:

- (1) Equipment shall be tested in the "as found" condition. Equipment may not be adjusted or tuned prior to any test for the purpose of lowering emissions, and then returned to previous settings or operating conditions after the test is complete.
- (2) The stack shall be of sufficient height and diameter and the sample ports shall be located so that a representative test of the emissions can be performed in accordance with the requirements of EPA Reference Method 1 or the current version of ASTM D 6522, as applicable.
- (3) Test reports shall be submitted to the Department no later than 30 days after completion of the test.

B112 Compliance

- A. The Department shall be given the right to enter the facility at all reasonable times to verify the terms and conditions of this permit. Required records shall be organized by date and subject matter and shall at all times be readily available for inspection. The permittee, upon verbal or written request from an authorized representative of the Department who appears at the facility, shall immediately produce for inspection or copying any records required to be maintained at the facility. Upon written request at other times, the permittee shall deliver to the Department paper or electronic copies of any and all required records maintained on site or at an off-site location. Requested records shall be copied and delivered at the permittee's expense within three business days from receipt of request unless the Department allows additional time. Required records may include records required by permit and other information necessary to

demonstrate compliance with terms and conditions of this permit. (NMSA 1978, Section 74-2-13)

- B. A copy of the most recent permit(s) issued by the Department shall be kept at the permitted facility or (for unmanned sites) at the nearest company office and shall be made available to Department personnel for inspection upon request. (20.2.72.210.B.4 NMAC)
- C. Emissions limits associated with the energy input of a Unit, i.e. lb/MMBtu, shall apply at all times unless stated otherwise in a Specific Condition of this permit. The averaging time for each emissions limit, including those based on energy input of a Unit (i.e. lb/MMBtu) is one (1) hour unless stated otherwise in a Specific Condition of this permit or in the applicable requirement that establishes the limit.

B113 Permit Cancellation and Revocation

- A. The Department may revoke this permit if the applicant or permittee has knowingly and willfully misrepresented a material fact in the application for the permit. Revocation will be made in writing, and an administrative appeal may be taken to the Secretary of the Department within thirty (30) days. Appeals will be handled in accordance with the Department's Rules Governing Appeals From Compliance Orders.
- B. The Department shall automatically cancel any permit for any source which ceases operation for five (5) years or more, or permanently. Reactivation of any source after the five (5) year period shall require a new permit. (20.2.72 NMAC)
- C. The Department may cancel a permit if the construction or modification is not commenced within two (2) years from the date of issuance or if, during the construction or modification, work is suspended for a total of one (1) year. (20.2.72 NMAC)

B114 Notification to Subsequent Owners

- A. The permit and conditions apply in the event of any change in control or ownership of the Facility. No permit modification is required in such case. However, in the event of any such change in control or ownership, the permittee shall notify the succeeding owner of the permit and conditions and shall notify the Department's Program Manager, Permits Section of the change in ownership within fifteen (15) days of that change. (20.2.72.212.C NMAC)
- B. Any new owner or operator shall notify the Department's Program Manager, Permits Section, within thirty (30) days of assuming ownership, of the new owner's or operator's name and address. (20.2.73.200.E.3 NMAC)

B115 Asbestos Demolition

- A. Before any asbestos demolition or renovation work, the permittee shall determine whether 40 CFR 61 Subpart M, National Emissions Standards for Asbestos applies. If required, the permittee shall notify the Department’s Program Manager, Compliance and Enforcement Section using forms furnished by the Department.

B116 Short Term Engine Replacement

- A. The following Alternative Operating Scenario (AOS) addresses engine breakdown or periodic maintenance and repair, which requires the use of a short term replacement engine. The following requirements do not apply to engines that are exempt per 20.2.72.202.B(3) NMAC. Changes to exempt engines must be reported in accordance with 20.2.72.202.B NMAC. A short term replacement engine may be substituted for any engine allowed by this permit for no more than 120 days in any rolling twelve month period per permitted engine. The compliance demonstrations required as part of this AOS are in addition to any other compliance demonstrations required by this permit.

- (1) The permittee may temporarily replace an existing engine that is subject to the emission limits set forth in this permit with another engine regardless of manufacturer, model, and horsepower without modifying this permit. The permittee shall submit written notification to the Department within 15 days of the date of engine substitution according to condition B110.C(1).
 - (a) The potential emission rates of the replacement engine shall be determined using the replacement engine’s manufacturer specifications and shall comply with the existing engine’s permitted emission limits.
 - (b) The direction of the exhaust stack for the replacement engine shall be either vertical or the same direction as for the existing engine. The replacement engine’s stack height and flow parameters shall be at least as effective in the dispersion of air pollutants as the modeled stack height and flow parameters for the existing permitted engine. The following equation may be used to show that the replacement engine disperses pollutants as well as the existing engine. The value calculated for the replacement engine on the right side of the equation shall be equal to or greater than the value for the existing engine on the left side of the equation. The permitting page of the Air Quality Bureau website contains a spreadsheet that performs this calculation.

EXISTING ENGINE

REPLACEMENT ENGINE

$$\frac{[(g) \times (h1)] + [(v1)^2/2] + [(c) \times (T1)]}{q1} \leq \frac{[(g) \times (h2)] + [(v2)^2/2] + [(c) \times (T2)]}{q2}$$

Where

g = gravitational constant = 32.2 ft/sec²

h_1 = existing stack height, feet

v_1 = exhaust velocity, existing engine, feet per second

c = specific heat of exhaust, 0.28 BTU/lb-degree F

T_1 = absolute temperature of exhaust, existing engine = degree F + 460

q_1 = permitted allowable emission rate, existing engine, lbs/hour

h_2 = replacement stack height, feet

v_2 = exhaust velocity, replacement engine, feet per second

T_2 = absolute temperature of exhaust, replacement engine = degree F + 460

q_2 = manufacturer's potential emission rate, replacement engine, lbs/hour

The permittee shall keep records showing that the replacement engine is at least as effective in the dispersion of air pollutants as the existing engine.

- (c) Test measurement of NO_x and CO emissions from the temporary replacement engine shall be performed in accordance with Section B111 with the exception of Condition B111A(2) and B111B for EPA Reference Methods Tests or Section B111C for portable analyzer test measurements. Compliance test(s) shall be conducted within fifteen (15) days after the unit begins operation, and records of the results shall be kept according to section B109.B. This test shall be performed even if the engine is removed prior to 15 days on site.
- i. These compliance tests are not required for an engine certified under 40CFR60, subparts IIII, or JJJJ, or 40CFR63, subpart ZZZZ if the permittee demonstrates that one of these requirements causes such engine to comply with all emission limits of this permit. The permittee shall submit this demonstration to the Department within 48 hours of placing the new unit into operation. This submittal shall include documentation that the engine is certified, that the engine is within its useful life, as defined and specified in the applicable requirement, and shall include calculations showing that the applicable emissions standards result in compliance with the permit limits.
 - ii. These compliance tests are not required if a test was conducted by portable analyzer or by EPA Method test (including any required by 40CFR60, subparts IIII and JJJJ and 40CFR63, subpart ZZZZ) within the last 12 months. These previous tests are valid only if conducted at the same or lower elevation as the existing engine location prior to commencing operation as a temporary replacement. A copy of the test results shall be kept according to section B109.B.

- (d) Compliance tests for NO_x and CO shall be conducted if requested by the Department in writing to determine whether the replacement engine is in compliance with applicable regulations or permit conditions.
 - (e) Upon determining that emissions data developed according to B116.A.1(c) fail to indicate compliance with either the NO_x or CO emission limits, the permittee shall notify the Department within 48 hours. Also within that time, the permittee shall implement one of the following corrective actions:
 - i. The engine shall be adjusted to reduce NO_x and CO emissions and tested per B116.A.1(c) to demonstrate compliance with permit limits.
 - ii. The engine shall discontinue operation or be replaced with a different unit.
- (2) Short term replacement engines, whether of the same manufacturer, model, and horsepower, or of a different manufacturer, model, or horsepower, are subject to all federal and state applicable requirements, regardless of whether they are set forth in this permit (including monitoring and recordkeeping), and shall be subject to any shield afforded by this permit.
 - (3) The permittee shall maintain a contemporaneous record documenting the unit number, manufacturer, model number, horsepower, emission factors, emission test results, and serial number of any existing engine that is replaced, and the replacement engine. Additionally, the record shall document the replacement duration in days, and the beginning and end dates of the short term engine replacement.
 - (4) The permittee shall maintain records of a regulatory applicability determination for each replacement engine (including 40CFR60, subparts III and JJJJ and 40CFR63, subpart ZZZZ) and shall comply with all associated regulatory requirements.
- B. Additional requirements for replacement of engines at sources that are major as defined in regulation 20.2.74 NMAC, Permits – Prevention of Significant Deterioration, section 7.AG. For sources that are major under PSD, the total cumulative operating hours of the replacement engine shall be limited using the following procedure:
- (1) Daily, the actual emissions from the replacement engine(s) of each pollutant regulated by this permit for the existing engine shall be calculated and recorded.
 - (2) The sum of the total actual emissions since the commencement of operation of the replacement engine(s) shall not equal or exceed the significant emission rates in Table 2 of 20.2.74 NMAC, section 502 for the time that the replacement engine is located at the facility.
- C. All records required by this section shall be kept according to section B109.

PART C MISCELLANEOUS**C100 Supporting On-Line Documents**

- A. Copies of the following documents can be downloaded from NMED's web site under Compliance and Enforcement or requested from the Bureau.
- (1) Excess Emission Form (for reporting deviations and emergencies)
 - (2) Universal Stack Test Notification, Protocol and Report Form and Instructions

C101 Definitions

- A. **"Daylight"** is defined as the time period between sunrise and sunset, as defined by the Astronomical Applications Department of the U.S. Naval Observatory. (Data for one day or a table of sunrise/sunset for an entire year can be obtained at <http://aa.usno.navy.mil/>. Alternatively, these times can be obtained from a Farmer's Almanac or from <http://www.almanac.com/rise/>).
- B. **"Decommission"** and **"Decommissioning"** applies to units left on site (not removed) and is defined as the complete disconnecting of equipment, emission sources or activities from the process by disconnecting all connections necessary for operation (i.e. piping, electrical, controls, ductwork, etc.).
- C. **"Exempt Sources"** and **"Exempt Activities"** is defined as those sources or activities that are exempted in accordance with 20.2.72.202 NMAC. Note; exemptions are only valid for most 20.2.72 NMAC permitting actions.
- D. **"Fugitive Emission"** means those emissions which could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening.
- E. **"Insignificant Activities"** means those activities which have been listed by the department and approved by the administrator as insignificant on the basis of size, emissions or production rate. Note; insignificant activities are only valid for 20.2.70 NMAC permitting actions.
- F. **"Malfunction"** for the requirements under 20.2.7 NMAC, means any sudden and unavoidable failure of air pollution control equipment or process equipment beyond the control of the owner or operator, including malfunction during startup or shutdown. A failure that is caused entirely or in part by poor maintenance, careless operation, or any other preventable equipment breakdown shall not be considered a malfunction. (20.2.7.7.E NMAC)
- G. **"Natural Gas"** is defined as a naturally occurring fluid mixture of hydrocarbons that contains 20.0 grains or less of total sulfur per 100 standard cubic feet (SCF) and is either composed of at least 70% methane by volume or has a gross calorific value of between 950 and 1100 Btu per standard cubic foot. (40 CFR 60.631)

- H. **“Natural Gas Liquids”** means the hydrocarbons, such as ethane, propane, butane, and pentane, that are extracted from field gas. (40 CFR 60.631)
- I. **“National Ambient air Quality Standards”** means, unless otherwise modified, the primary (health-related) and secondary (welfare-based) federal ambient air quality standards promulgated by the US EPA pursuant to Section 109 of the Federal Act.
- J. **“Night”** is the time period between sunset and sunrise, as defined by the Astronomical Applications Department of the U.S. Naval Observatory. (Data for one day or a table of sunrise/sunset for an entire year can be obtained at <http://aa.usno.navy.mil/>. Alternatively, these times can be obtained from a Farmer’s Almanac or from <http://www.almanac.com/rise/>).
- K. **“Night Operation or Operation at Night”** is operating a source of emissions at night.
- L. **“NO₂”** or "Nitrogen dioxide" means the chemical compound containing one atom of nitrogen and two atoms of oxygen, for the purposes of ambient determinations. The term "**nitrogen dioxide**," for the purposes of stack emissions monitoring, shall include nitrogen dioxide (the chemical compound containing one atom of nitrogen and two atoms of oxygen), nitric oxide (the chemical compound containing one atom of nitrogen and one atom of oxygen), and other oxides of nitrogen which may test as nitrogen dioxide and is sometimes referred to as NO_x or NO₂. (20.2.2 NMAC)
- M. **“NO_x”** see NO₂
- N. **“Paved Road”** is a road with a permanent solid surface that can be swept essentially free of dust or other material to reduce air re-entrainment of particulate matter. To the extent these surfaces remain solid and contiguous they qualify as paved roads: concrete, asphalt, chip seal, recycled asphalt and other surfaces approved by the Department in writing.
- O. **“Potential Emission Rate”** means the emission rate of a source at its maximum capacity to emit a regulated air contaminant under its physical and operational design, provided any physical or operational limitation on the capacity of the source to emit a regulated air contaminant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored or processed, shall be treated as part of its physical and operational design only if the limitation or the effect it would have on emissions is enforceable by the department pursuant to the Air Quality Control Act or the federal Act.
- P. **“Restricted Area”** is an area to which public entry is effectively precluded. Effective barriers include continuous fencing, continuous walls, or other continuous barriers approved by the Department, such as rugged physical terrain with a steep grade that would require special equipment to traverse. If a large property is completely enclosed by fencing, a restricted area within the property may be identified with signage only. Public roads cannot be part of a Restricted Area.

- Q. **"Shutdown"** for requirements under 20.2.72 NMAC, means the cessation of operation of any air pollution control equipment, process equipment or process for any purpose, except routine phasing out of batch process units.
- R. **"SSM"** for requirements under 20.2.7 NMAC, means routine or predictable startup, shutdown, or scheduled maintenance.
 - (1) **"Shutdown"** for requirements under 20.2.7 NMAC, means the cessation of operation of any air pollution control equipment or process equipment.
 - (2) **"Startup"** for requirements under 20.2.7 NMAC, means the setting into operation of any air pollution control equipment or process equipment.
- S. **"Startup"** for requirements under 20.2.72 NMAC, means the setting into operation of any air pollution control equipment, process equipment or process for any purpose, except routine phasing in of batch process units.

C102 Acronyms

2SLB	2-stroke lean burn
4SLB	4-stroke lean burn
4SRB	4-stroke rich burn
acfm	actual cubic feet per minute
AFR	air fuel ratio
AP-42	EPA Air Pollutant Emission Factors
AQB	Air Quality Bureau
AQCR	Air Quality Control Region
ASTM	American Society for Testing and Materials
Btu	British thermal unit
CAA	Clean Air Act of 1970 and 1990 Amendments
CEM	continuous emissions monitoring
cfh	cubic feet per hour
cfm	cubic feet per minute
CFR	Code of Federal Regulation
CI	compression ignition
CO	carbon monoxides
COMS	continuous opacity monitoring system
EIB	Environmental Improvement Board
EPA	United States Environmental Protection Agency
gr/100 cf	grains per one hundred cubic feet
gr/dscf	grains per dry standard cubic foot
GRI	Gas Research Institute
HAP	hazardous air pollutant
hp	horsepower
H ₂ S	hydrogen sulfide
IC	internal combustion
KW/hr	kilowatts per hour

lb/hr	pounds per hour
lb/MMBtu	pounds per million British thermal unit
MACT	Maximum Achievable Control Technology
MMcf/hr	million cubic feet per hour
MMscf	million standard cubic feet
N/A	not applicable
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emission Standards for Hazardous Air Pollutants
NG	natural gas
NGL	natural gas liquids
NMAAQS	New Mexico Ambient Air Quality Standards
NMAC	New Mexico Administrative Code
NMED	New Mexico Environment Department
NMSA	New Mexico Statues Annotated
NO _x	nitrogen oxides
NSCR	non-selective catalytic reduction
NSPS	New Source Performance Standard
NSR	New Source Review
PEM	parametric emissions monitoring
PM	particulate matter (equivalent to TSP, total suspended particulate)
PM ₁₀	particulate matter 10 microns and less in diameter
PM _{2.5}	particulate matter 2.5 microns and less in diameter
pph	pounds per hour
ppmv	parts per million by volume
PSD	Prevention of Significant Deterioration
RATA	Relative Accuracy Test Assessment
RICE	reciprocating internal combustion engine
rpm	revolutions per minute
scfm	standard cubic feet per minute
SI	spark ignition
SO ₂	sulfur dioxide
SSM	Startup Shutdown Maintenance (see SSM definition)
TAP	Toxic Air Pollutant
TBD	to be determined
THC	total hydrocarbons
TSP	Total Suspended Particulates
tpy	tons per year
ULSD	ultra low sulfur diesel
USEPA	United States Environmental Protection Agency
UTM	Universal Transverse Mercator Coordinate system
UTMH	Universal Transverse Mercator Horizontal
UTMV	Universal Transverse Mercator Vertical
VHAP	volatile hazardous air pollutant
VOC	volatile organic compounds