DES
DEPARTMENT OF ENVIRONMENT AND SUSTAINABILITY
air quality desert conservation PROGRAM sustainability

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PART 70 OPERATING PERMIT

SOURCE ID: 00095

EMD Acquisition LLC
560 West Lake Mead Parkway
Henderson, Nevada 89015

ISSUED ON: November 20, 2024 **EXPIRES ON: November 19, 2029**

Current action: Renewal

Issued to:
EMD Acquisition LLC
560 West Lake Mead Parkway
Henderson, Nevada 89015

Responsible Official:
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Owner and Director
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NATURE OF BUSINESS:
SIC code 2819, "Industrial Inorganic Chemical Manufacturing"
NAICS code 325180, "Other Basic Inorganic Chemical Manufacturing"

Issued by the Clark County Department of Environment and Sustainability/Division of Air Quality in accordance with Section 12.5 of the Clark County Air Quality Regulations.

Santosh Mathew, Permitting Manager

EXECUTIVE SUMMARY

EMD Acquisition LLC, dba Borman Specialty Materials (the source), is located in the BMI industrial park near Henderson, Nevada. The legal description of the source location is: portions of T22S, R62E, Sections 12-13 in Las Vegas Valley, County of Clark, State of Nevada. The source is situated in the Hydrographic Area 212, the Las Vegas Valley, which is currently designated as attainment for all pollutants except ozone. The Las Vegas Valley was designated a Marginal nonattainment area for ozone on August 3, 2018. The area was reclassified Moderate nonattainment on January 5, 2023, but the changes in designation did not result in any new requirements at this time.

The source operates chemical processes that produce inorganic chemicals. The three primary chemicals produced are manganese dioxide (MnO_2), elemental boron, and boron trichloride (BCl_3). The source also produces advanced battery products (ABM; previously permitted as LMO) from the MnO_2. In addition, the source operates diesel fired emergency engines, natural gas boilers, cooling towers, a gasoline tank, roads and stockpiles, and a laboratory to support operations, some of which are deemed insignificant units or activities.

The source is categorized under SIC code 2819, "Industrial Inorganic Chemical Manufacturing," and NAICS code 325180, "Other Basic Inorganic Chemical Manufacturing."

The source is a major source of HAP because manganese compounds emissions are greater than 10 tpy and the total of all HAPs is greater than 25 tpy. The source is a synthetic minor of PM_{10} and a true minor for $PM_{2.5}$, NO_x, CO, SO_2, and VOC. The source emits greenhouse gases, but it is not a major source for greenhouse gas emissions. The source is a categorical source (chemical processing plant) as defined by AQR 12.2.2(j)(21).

The source is subject to the applicable requirements of 40 CFR Part 60, Subpart Dc; 40 CFR Part 63, Subpart ZZZZ; and 40 CFR Part 63, Subpart DDDDD.

The following table summarizes the source PTE for each regulated air pollutant.

Annual Potential To Emit (TPY)

PM_{10}	$PM_{2.5}$	NO_X	CO	SO_2	VOC	HAP (Mn Compounds)	HAP (Pb Compounds)	HAP (total)	H_2S	HCl	Cl_2	GHG[1]
33.32	13.73	40.34	19.86	0.38	3.96	23.11	0.06	25.05	0.02	0.39	0.01	74,170

[1]GHG is expressed as CO_2e for information only.

Pursuant to AQR 12.5, all terms and conditions in Sections 1.0 - 9.0 in this permit are federally enforceable unless explicitly denoted otherwise.

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Common Acronyms and Abbreviations

(These terms may be seen in the permit)

Acronym	Term
ABM	advanced battery manufacturing
DAQ	Division of Air Quality
DES	Clark County Department of Environment and Sustainability
AQR	Clark County Air Quality Regulation
ATC	Authority to Construct
CD	control device
CFC	chlorofluorocarbon
CFR	Code of Federal Regulations
Cl	chlorine
CO	carbon monoxide
EMD	electrolytic manganese dioxide
EPA	U.S. Environmental Protection Agency
EU	emission unit
GPM	gallons per minute
GST	DAQ *Guidelines for Source Testing*
HAP	hazardous air pollutants
HCl	hydrochloric acid
HP	horsepower
kW	kilowatt
MMBtu/hr	million British thermal units per hour
Mn	manganese
NAICS	North American Industry Classification System
NESHAP	National Emission Standard for Hazardous Air Pollutants
NO_X	nitrogen oxides
NSPS	New Source Performance Standards
NRS	Nevada Revised Statutes
OP	Operating Permit
PM	filterable particulate matter
PM_{10}	particulate matter less than 10 microns in diameter
$PM_{2.5}$	particulate matter less than 2.5 microns in diameter
PTE	potential to emit
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SO_2	sulfur dioxide
VOC	volatile organic compounds

1.0 EQUIPMENT

1.1 EMISSION UNITS

The stationary source covered by this Part 70 Operating Permit (Part 70 OP) consists of the emission units and associated appurtenances summarized in Table 1-1. *[AQR 12.4 ATC, December 5, 2018, and AQR 12.5.2.3]*

Table 1-1: List of Emission Units

EU	Description	Rating	Make	Model #	Serial #
Emergency Engines					
A01	Emergency Generator		Kohler	50R0ZJ61	338784
	Diesel Engine, DOM: Pre 2006	92 HP	John Deere	TO4039T427638[1]	
A02	Emergency Generator		Kohler	100R0ZJ71	378083
	Diesel Engine, DOM: Pre 2006	166 HP	John Deere	CD6059T279209[1]	
A03	Emergency Generator		Kohler	100R0ZJ71	37802
	Diesel Engine, DOM: Pre 2006	166 HP	John Deere	CD6059T279212[1]	
A04	Emergency Generator		Kohler	250R0ZD7[1]	356117
	Diesel Engine, DOM: Pre 2006	423 HP	John Deere	06VF209030[1]	
Large Boilers					
A05	Boiler, Natural Gas	96.6 MMBtu/hr	Cleaver Brooks	DLD-700-94 (R.H.)	W002895
A07	Boiler, Natural Gas	72.0 MMBtu/hr	Murray Trane	MCF4-57	10851
Roads and Disturbed Surfaces					
B01	Disturbed Surfaces, 6.00 Acres				
G01	Paved Roads, 5,866 VMT/year				
Boron Process					
E003	Boron Process System– Process other than the firing chambers, including Boron Grinding Mill and Crusher, 10 hp Baghouse				
E004	Boron Process – Firing Chambers (20), 15 hp Baghouse				
Boron Trichloride Process					
F006	Boron Trichloride Process – Boron Trichloride Reactors (5) and Refining Process, Scrubber				
Manganese Dioxide Processing					
MN01A	Manganese Dioxide Process: Ore Delivery to Storage EU: MN06A (fugitive PM)				

EU	Description	Rating	Make	Model #	Serial #
MN01B	Manganese Dioxide Process: Ore Transfer to Hearths with Baghouse (uncaptured PM)				
MN01C	Manganese Dioxide Process: Hearth Turning with Baghouse (uncaptured PM)				
MN01D	Manganese Dioxide Process: Hearth Harvesting with Baghouse (uncaptured PM)				
9555	Manganese Dioxide Process: East Polishing Bin with Baghouse (uncaptured PM)				
9556	Manganese Dioxide Process: West Polishing Bin with Baghouse (uncaptured PM)				
1D	Manganese Dioxide Process: Unit 6 – Rotary Drum Dryer With Collector/Baghouse, 4.8 tons/hr				
1C	Manganese Dioxide Process: Unit 6 – Loader to tank 49, Tank 49 to Conveyor 20 with Crusher Baghouse, 4.5 tons/hr				
2C	Manganese Dioxide Process: Unit 6 – Conveyor 20 to Jaw Crusher, SOLH03 Jaw Crusher, Jaw Crusher to Conveyor 22, with Crusher Baghouse, 4.5 tons/hr				
4C	Manganese Dioxide Process: Unit 6 – Conveyor 22 to Screen 02, Screen 02 (oversize), Screen 02 to tank 53 (oversize bin), Screen 02 to Tank 65 with Crusher Baghouse, 4.5 tons/hr				
5C	Manganese Dioxide Process: Unit 6 – Tank 53 (oversize bin), Tank 53 to Conveyor 23 with Crusher Baghouse, 4.5 tons/hr				
6C	Manganese Dioxide Process: Unit 6 – Conveyor 23 to Gyratory Crusher, SOLH3C Gyratory Crusher, Gyratory Crusher to Conveyor 22 (recirculation) with Crusher Baghouse, 4.5 tons/hr				
7C	Manganese Dioxide Process: Unit 6 – Tank 65 to Conveyor 24, Conveyor 24 to Conveyor 25, Conveyor 25 to Conveyor 05 with Crusher Baghouse, 4.5 tons/hr				
1M	Manganese Dioxide Process: Unit 6 – Conveyor 05 to Tank 38, Tank 38 to Tank 70 (100 ton bin), Tank 38 to Conveyor 06, Tank 38 to Conveyor 07, Tank 38 to Conveyor 28 with Mill Feed Baghouse, 4.5 tons/hr				

EU	Description	Rating	Make	Model #	Serial #
2M	Manganese Dioxide Process: Unit 6 – Conveyor 07 to Conveyor 09 with Mill Feed Baghouse, 4.5 tons/hr				
3M	Manganese Dioxide Process: Unit 6 – Conveyor 06 to Conveyor 08 with Mill Feed Baghouse, 4.5 tons/hr				
4M	Manganese Dioxide Process: Unit 6 – Conveyor 28 to Tank 71 with Mill Feed Baghouse, 4.5 tons/hr				
5M	Manganese Dioxide Process: Unit 6 – Tank 71 (west bin) to Conveyor 3H with Mill Feed Baghouse, 4.5 tons/hr				
6M	Manganese Dioxide Process: Unit 6 – Tank 70 (100 ton bin) to Conveyor 29 with Mill Feed Baghouse, 4.5 tons/hr				
7M	Manganese Dioxide Process: Unit 6 – Conveyor 29 to Conveyor 32, Conveyor 32 to Conveyor 33, Conveyor 33 to Tank 38 (recirculation) with Mill Feed Baghouse, 4.5 tons/hr				
8M	Manganese Dioxide Process: Unit 6 – Conveyor 3H to Conveyor 3M with Mill Feed Baghouse, 4.5 tons/hr				
1F	Manganese Dioxide Process: Unit 6 – Dryer Baghouse fines to Conveyor 13, Finishing Baghouse Fines to Conveyor 39, Conveyor 39 to Conveyor 14, Conveyor 13 to Conveyor 14, with Finishing Baghouse, 4.5 tons/hr				
2F	Manganese Dioxide Process: Unit 6 – Conveyor 14 to Screen 03, Screen 03 (Rotex Screen), Screen 03 to Tank 72, Conveyor 34 to Screen 03, with Finishing Baghouse, 4.5 tons/hr				
3F	Manganese Dioxide Process: Unit 6 – Conveyor 14 to Screen 01, Screen 01 (Rotex Screen), Screen 01 to Tank 72, Conveyor 34 to Screen 01, with Finishing Baghouse, 4.5 tons/hr				
4F	Manganese Dioxide Process: Unit 6 – Screen 01 and Screen 03 to Oversize Air Slide, Oversize Air Slide to Dyna Slide, Dyna Slide to Rotex Slurry Tank, with Finishing Baghouse, 4.5 tons/hr				
5F	Manganese Dioxide Process: Unit 6 – Tank 72 to Conveyor 27 (Pneumatic Conveyor), Conveyor 27 (Pneumatic Conveyor) to Tank 73 (Product Silo), Conveyor 34 to Tank 72, with Finishing Baghouse, 4.5 tons/hr				

EU	Description	Rating	Make	Model #	Serial #
6F	Manganese Dioxide Process: Unit 6 – MISC 35 (Fast Dump Station), MISC 35 to Conveyor 35, Conveyor 35 to Conveyor 34, with Finishing Baghouse, 4.5 tons/hr				
8F	Manganese Dioxide Process: Unit 6 – Tank 73 (Product Silo) to Blender #2 (East Blender), Blender #2 (East Blender), Blender #2 (East Blender) to West Bagger, with Finishing Baghouse, 4.5 tons/hr				
9F	Manganese Dioxide Process: Unit 6 – Tank 73 to Conveyor 31 (Air Slide), Conveyor 31 (Air Slide) to Blender #1 (West Blender), Blender #1 (West Blender), Blender #1 (West Blender) to East Bagger, with Finishing Baghouse, 4.5 tons/hr				
10F	Manganese Dioxide Process: Unit 6 – East Supersack Loading, with Finishing Baghouse, 4.5 tons/hr				
11F	Manganese Dioxide Process: Unit 6 – West Supersack Loading, with Finishing Baghouse, 4.5 tons/hr				
M02	Manganese Dioxide Process: Unit 6 – EMD Plate Crushing, Crushed plate Transfer				
MN02	Manganese Dioxide Process: Hearth Baghouse Stack, and Polishing Bins (stack emissions)				
MN03	Manganese Dioxide Process: Hearth CO Reduction Reactor Stack (stack emissions)				
Electrolytic Manganese Dioxide Cells					
MN04	Manganese Dioxide Process: 217 EMD Cells				
Sulfiding Process					
MN05	Sulfiding Process				
Process Stockpiles					
MN06A	Ore Storage Stockpiles (MnO_2 ore, outdoor)				
MN06B	Crushed Plate Stockpile (MnO_2 in Unit 6)				
Cooling Towers					
CT03	Cooling Tower #3, 4,000 ppm, 0.001% Drift, (at Unit 5)	1,485 GPM	Baltimore Aircoil	S15E-1212-12-MN	U220340603_01-01
CT04	Cooling Tower #1, 4,000ppm, 0.001% drift, (at Leach Plant)	300 GPM	Baltimore Aircoil	XES15E-1285-06FN	3386-101

EU	Description	Rating	Make	Model #	Serial #
Gasoline Dispensing					
T01	Gasoline Tank, 1,000 Gallon, Aboveground				
Advanced Battery Manufacturing					
ABM01	ABM Process 1 Consisting of an ABM Jet Mill System. ABM Jet Mill System Includes the Following Operations/Equipment: End Superstack to Jet Mill, ABM Jet Mill, Collector #1, Tote Bin from Dust Collector, Vent Blower, with Collector/Baghouse (Baghouse #1)				
ABM02	ABM Process 2 Consisting of an ABM Classifier "A" System. ABM Classifier System Includes the Following Operations/Equipment: Feed Tote Bin to Classifier "A", Classifier "A", Course Material Tote Bin from Classifier "A", Classifier Cyclone, Cyclone Fines Drum, Collector #2, Drum of Fines from Dust Collector, Vent Blower, with Collector/Baghouse (Baghouse #2)				
ABM03	ABM Process 3 Consisting of an ABM DPM Mill System. ABM DPM Mill System Includes the Following Operations/Equipment: Feed Tote to DPM Mill, DPM Mill, Collector #4, Tote Bin from Dust Collector, Vent Blower, with Collector/Baghouse (Baghouse #3)				
ABM04	ABM Process 4 Consisting of an ABM Conversion Calciner System Routed to Calciner Baghouse. ABM Conversion Calciner System Includes the Following Operations/Equipment: Feed Tote Bin to Conversion Calciner, Conversion Calciner (3-Zone), Product Tote Bin from Conversion Calciner, Feed Tote Bin to Product Packaging, Product Packaging, Vent Blower, Secondary Filter, with Calciner/Baghouse (Baghouse #1)				

[1] This is the only number that can be found on the engine itself.

1.2 INSIGNIFICANT ACTIVITIES

The units in Table 1-2 are present at this source, but are insignificant activities pursuant to AQR 12.5. The emissions from these units or activities, when added to the PTE of the source, will not make the source major for any additional pollutant.

Table 1-2: Insignificant Activities

Description
20,000-gallon diesel above-ground storage tank
Housecleaning vacuums
Boron trichloride crude reboiler <0.10 MMBtu/hr
Boron trichloride refined reboiler <0.10 MMBtu/hr
Manganese dioxide process laboratory vent stacks
Wet grinding mill and filter and associated equipment previously permitted as EU: M04 (Mod 13)

1.3 NONROAD ENGINES

Pursuant to Title 40, Part 1068.30 of the Code of Federal Regulations (40 CFR Part 1068.30), nonroad engines that are portable or transportable (i.e., not used on self-propelled equipment) shall not remain at a location for more than 12 consecutive months; otherwise, the engine(s) will constitute a stationary reciprocating internal combustion engine (RICE) and be subject to the applicable requirements of 40 CFR Part 63, Subpart ZZZZ; 40 CFR Part 60, Subpart IIII; and/or 40 CFR Part 60, Subpart JJJJ. Stationary RICE shall be permitted as emission units upon commencing operation at this stationary source.

Records of location changes for portable or transportable nonroad engines shall be maintained, and shall be made available to the Control Officer upon request. These records are not required for engines owned and operated by a contractor for maintenance and construction activities as long as records are maintained demonstrating that such work took place at the stationary source for periods of less than 12 consecutive months.

Nonroad engines used on self-propelled equipment do not have this 12-month limitation or the associated recordkeeping requirements.

2.0 CONTROLS

2.1 CONTROL DEVICES

1. The permittee shall operate each control device at all times any affected emission unit is operating, as indicated in Table 2-1. *[AQR 12.4 ATC, December 5, 2018]*

Table 2-1: Summary of Add-On Control Devices

CD	Affected EU(s)	Device Type	Manufacturer	Model No.	Pollutant
CD-B1	Boron Trichloride Process, F006, Wet Scrubber	Scrubber			HCl, Cl_2
CD-B2	Boron Process, Boron Grinding Mill and Crusher, E003, Baghouse	Baghouse	Farr	016	PM/PM_{10}/$PM_{2.5}$
CD-B3	Boron Process, Boron Firing Chamber, E004, Baghouse	Baghouse	Farr	016	PM/PM_{10}/$PM_{2.5}$
CD-M1	MnO_2 Process Crushing/Screening, 1C, 2C, 4C-7C, Crusher Baghouse	Baghouse	Johnson-March	Skykleen-type	PM/PM_{10}/$PM_{2.5}$
CD-M2	MnO_2 Process Drum Dryer, 1D, Rotary Drum Dryer Baghouse	Baghouse	Johnson-March	Skykleen-type	PM/PM_{10}/$PM_{2.5}$
CD-M3	MnO_2 Process Bagging, 1F-6F, 8F-11F, Finishing Baghouse	Baghouse	DCE	Dalamatic-type	PM/PM_{10}/$PM_{2.5}$
CD-M4	MnO_2 Process Crushed Plate Transfer Equipment, 1M-8M, Mill Feed Baghouse	Baghouse	DCE	Dalamatic-type	PM/PM_{10}/$PM_{2.5}$
CD-L1	MnO_2 Process H_2S Caustic Scrubber, MN05	Scrubber			H_2S
CD-L2	MnO_2 Process H_2S Lime Scrubber, MN05	Scrubber			H_2S
CD-H1	Hearth CO Control Device, MN03	CO Oxidizer	Facility Fabricated	Facility Fabricated	CO
CD-H2	Hearth Baghouse, MN02, 9555 and 9556	Baghouse	Facility Fabricated	Facility Fabricated	PM/PM_{10}/$PM_{2.5}$
CD-A1	ABM Process Baghouse 1, ABM01, Jet Mill System Collector	Baghouse	Torit-Donaldson	573	PM/PM_{10}/$PM_{2.5}$
CD-A2	ABM Process Baghouse 2, ABM02, Classifier “A” System Collector	Baghouse	Torit-Donaldson	573	PM/PM_{10}/$PM_{2.5}$

CD-A3	ABM Process Baghouse 3, ABM03, DPM Mill Collector	Baghouse	Torit-Donaldson	573	$PM/PM_{10}/PM_{2.5}$
CD-A4	ABM Process Baghouse 4, ABM04, Conversion Calciner Baghouse	Baghouse	MikroPul	25S-8-20	$PM/PM_{10}/PM_{2.5}$

2.2 CONTROL REQUIREMENTS

Boilers

1. The permittee shall combust only natural gas in all boilers except during periods of natural gas curtailment (EU: A05 and A07). *[NSR ATC/OP February 27, 2004 and AQR 12.4 ATC, December 5, 2018]*
2. The permittee shall operate and maintain all boilers in accordance with the manufacturer's specifications (EU: A05 and A07). *[NSR ATC/OP February 27, 2004 and AQR 12.4 ATC, December 5, 2018]*
3. The permittee shall equip and operate the boiler with flue gas recirculation and oxygen trim control devices (EU: A05). *[NSR ATC December 16, 1996 (FGR); NSR ATC/OP February 27, 2004 (oxygen trim); & AQR 12.4 ATC, December 5, 2018]*
4. The permittee shall equip and operate the boiler with oxygen trim control devices (EU: A07). *[NSR ATC/OP February 27, 2004 & AQR 12.4 ATC, December 5, 2018]*
5. The permittee shall equip and operate the boiler with burners that do not exceed either 25 ppm (2.90 lbs/hr) NO_x or 6 ppm (0.39 lb/hr) CO corrected to three percent oxygen (EU: A05). *[NSR ATC/OP February 27, 2004 & AQR 12.4 ATC, December 5, 2018]*
6. The permittee shall equip and operate the boiler with burners that do not exceed either 84 ppm (7.34 lbs/hr) NO_x or 7 ppm (0.36 lb/hr) CO corrected to three percent oxygen (EU: A07). *[NSR ATC/OP February 27, 2004 & AQR 12.4 ATC, December 5, 2018]*

Generators/Engines

7. The permittee shall only combust diesel fuel with a maximum sulfur content of 15 ppm and either a minimum cetane index of 40 or a maximum aromatic content of 35% by volume in the emergency generators (EUs: A01 – A04). *[40 CFR 63.6604(b)]*
8. The permittee shall operate and maintain all the diesel generators (EUs: A01–A04) in accordance with the manufacturer's specifications. *[40 CFR Part 63, Subpart ZZZZ]*
9. The permittee shall equip and operate the diesel emergency generators with turbochargers (EUs: A01–A04). *[NSR ATC/OP December 18, 1996 & AQR 12.4 ATC, December 5, 2018]*
10. The permittee shall equip and operate the diesel emergency generator with an aftercooler (EU: A04). *[NSR ATC/OP December 18, 1996 & AQR 12.4 ATC, December 5, 2018]*
11. The permittee shall maintain the emergency generator (EUs: A01–A04) as follows, unless the manufacturer's specifications are more stringent: *[40 CFR Part 63, Subpart ZZZZ]*

i. Change oil and filter every 500 hours of operation or annually, whichever comes first;

ii. Inspect air cleaners every 1,000 hours of operation or annually, whichever comes first;

iii. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary; and

iv. If necessary, utilize an oil analysis program as described in Subpart 63.6625(i) to extend the specified oil change requirement. The permittee can also petition the Control Officer for alternative work practices, pursuant to the requirements of 40 CFR Part 63.6(g).

Boron Process

12. The permittee shall operate the boron baghouse at all times during the grinding and crushing of the boron charge (EU: E003). *[NSR ATC/OP Mod 13, June 1, 2010 and AQR 12.4 ATC, December 5, 2018]*

13. The permittee shall maintain the pressure drop across the boron baghouse within the range specified in Table 4-2 (EU: E003). *[AQR 12.4 ATC, December 5, 2018]*

14. The permittee shall operate the boron baghouse at all times during the operation, including during the loading and firing of the boric oxide/magnesium charge (EU: E004). *[NSR ATC/OP Mod 13, June 1, 2010 & AQR 12.4 ATC, December 5, 2018]*

15. The permittee shall maintain the pressure drop across the boron baghouse within the range specified in Table 4-2 (EU: E004). *[AQR 12.4 ATC, December 5, 2018]*

Boron Trichloride Process

16. The permittee shall operate the boron trichloride wet scrubber and material recovery equipment at all times during the production of boron trichloride (EU: F006). *[NSR ATC/OP Mod 13, June 1, 2010 & AQR 12.4 ATC, December 5, 2018]*

17. The permittee shall operate the boron trichloride wet scrubber with a minimum control efficiency of 99 percent for particulate matter (EU: F006). *[NSR ATC/OP Mod 13, June 1, 2010 & AQR 12.4 ATC, December 5, 2018]*

18. The permittee shall maintain the pressure drop across the boron trichloride wet scrubber within the range specified in Table 4-2 (EU: F006). *[AQR 12.4 ATC, December 5, 2018]*

Hearths and MnO_2 Processes

19. The permittee shall limit the lead content in various materials to the concentrations in Table 2-2 [*Title V OP, January 11, 2024, Renewal Application, May 2, 2024]*:

Table 2-2: Maximum Lead Concentration

Material	Concentration
MnO_2 (unreduced ore)	500 ppm
MnO_2 (reduced ore)	8,500 ppm
MnO process material following leaching	8,500 ppm

20. The permittee shall sample, analyze, and report metal concentration data as outlined below *[Title V OP, January 11, 2024]*:

i. The permittee, via a Nevada Certified Environmental Manager (CEM), shall sample unreduced ore, from each vendor, staged in the stockpiles. A random sample from each of the stockpiles shall be collected in a clean 5-gallon bucket and mixed to homogenize. A 4-ounce sample of this mixture shall be collected in a clean glass jar for shipment under chain of custody to a third-party analytical lab. This sampling for analysis shall take place on a quarterly basis. If, after four consecutive quarterly analyses, Air Quality finds the concentration of elements showing good correlation between the vendor analysis and the third-party analytical lab, and does not exceed the permit limit for lead in Table 2.2, the sampling and analysis frequency can be reduced to annually, with a request from the RO through a permit revision. If a new vendor is obtained, the frequency for that vendor starts at quarterly.

ii. The permittee, via a Nevada Certified Environmental Manager (CEM), shall sample reduced ore, from each vendor, received in Super Sacs. A 1-ounce sample from each Super Sack shall taken and stored in a clean 5-gallon bucket and mixed to homogenize. A 4-ounce sample of this mixture shall be collected in a clean glass jar for shipment under chain of custody to a third-party analytical lab. This sampling for analysis shall take place on a quarterly basis. If, after four consecutive quarterly analyses, Air Quality finds the concentration of elements showing good correlation between the vendor analysis and the third-party analytical lab, and does not exceed the permit limit for lead in Table 2.2, the sampling and analysis frequency can be reduced to annually, with a request from the RO through a permit revision. If a new vendor is obtained, the frequency for that vendor starts at quarterly.

iii. The permittee, via a Nevada Certified Environmental Manager (CEM), shall sample process material following leaching. A random sample from the crushed plate stockpile shall be taken and stored in a clean 4-ounce glass jar for shipment under chain of custody to a third-party analytical lab. This sampling for analysis shall take place on a quarterly basis. If, after four consecutive quarterly analyses, Air Quality finds the concentration of elements showing good correlation between the in-house analysis and the third-party analytical lab, and does not exceed the permit limit for lead in Table 2.2, the sampling and analysis frequency can be reduced to annually, with a request from the RO through a permit revision.

iv. For the three samples described above, the permittee shall have a Nevada Certified Laboratory analyze the samples for the elemental concentration of arsenic (As), barium (Ba), cadmium (Cd), chromium (Cr), lead (Pb), manganese (Mn), selenium (Se), and silver (Ag). The analytical method for lead shall be EPA Method 6010B. Results for elements other than lead (Pb) shall be for comparison purposes only. The method chosen is up to the permittee as long as that method is always used.

v. The permittee shall obtain certified copies of the results from the Nevada Certified Laboratory. If an exceedance of any lead concentration limit occurs, the permittee shall submit a deviation report to DAQ as required in Section 4.4.5.

21. The permittee shall equip and operate the hearths and polishing bins with a baghouse to control particulate emissions during hearth building, turning, harvesting, and processed ore transfer to polishing bins (EUs: MN02, 9555 and 9556). *[NSR ATC/OP Mod 13, June 1, 2010 & AQR 12.4 ATC, December 5, 2018]*

22. The permittee shall operate the hearth emission capture system (hoods) with a particulate capture efficiency averaging at least 50 percent when the hood is in the up position (EU: MN02); *[AQR 12.4 ATC, December 5, 2018]*

23. The permittee shall use MERV 16 Teflon-coated filters (or equivalent) in the hearth baghouse (EUs: MN02, 9555 and 9556). *[AQR 12.4 ATC, December 5, 2018]*

24. The permittee shall operate the hearth baghouse with filters used in compliance with the published manufacturer's instructions and warranty, which warranty represents that such baghouse filters will function at a minimum control efficiency of 99 percent for particulate matter of 0.3 microns or greater (PM) (EUs: MN02, 9555 and 9556). *[AQR 12.4 ATC, December 5, 2018]*

25. The permittee shall equip and operate the hearth baghouse with a device that indicates the differential pressure across the baghouse. This device shall be operated, calibrated, and maintained in accordance with the manufacturer's specifications (EUs: MN02, 9555 and 9556). *[NSR ATC/OP, April 20, 2001 & AQR 12.4 ATC, December 5, 2018]*

26. The permittee shall maintain the differential pressure across the hearth baghouse within the range specified in Table 4-2 (EUs: MN02, 9555 and 9556). *[AQR 12.4 ATC, December 5, 2018]*

27. The permittee shall operate a CO oxidizer catalyst control device on the hearths that achieves at least an 80.0 percent overall reduction in CO emissions from the open hearth process as compared to uncontrolled emissions. This overall reduction shall be based on all fugitives, captured, and controlled CO emissions (EU: MN03). *[NSR ATC, July 19, 1993 & AQR 12.4 ATC, December 5, 2018]*

28. If parametric monitoring of the CO oxidizer catalyst indicates that the calculated average capture efficiency for the CO oxidizer catalyst is less than 92.0 percent and the average destruction efficiency is less than 97.0 percent, the permittee shall cease the unreduced ore roasting cycles until the situation is investigated and it is confirmed that an overall control efficiency of a minimum 80.0 percent is being maintained (EU: MN03). *[NSR ATC, February 20, 2001 & AQR 12.4 ATC, December 5, 2018]*

29. The permittee shall ensure that the CO oxidizer catalyst operating temperature is at least 450°F (EU: MN03). *[NSR ATC, February 20, 2001 & AQR 12.4 ATC, December 5, 2018]*

30. The permittee shall replace the catalyst in the CO oxidizer catalyst control device on the hearths when the gas flow rate falls below 5,000 scfm. *[AQR 12.4 ATC, December 5, 2018]*

31. The permittee shall equip and operate the natural gas supply to the hearths with a nonresettable fuel meter. *[NSR ATC/OP, February 27, 2004 & AQR 12.4 ATC, December 5, 2018]*

32. The permittee shall allow only wet milling (moisture content greater than ten percent) for ball mills associated with the MnO_2 process. *[NSR ATC/OP Mod 13, June 1, 2010 & AQR 12.4 ATC, December 5, 2018]*

33. The permittee shall prohibit visible emissions from enclosed processes of the MnO_2 production. *[NSR ATC/OP Mod 13, June 1, 2010 & AQR 12.4 ATC, December 5, 2018]*

Hearth and MnO_2 Processes Housekeeping

34. The permittee shall conduct and record observations of the ore stockpile area, hearth area, and MnO_2 processing areas where ore is handled, transported, or stored. The observations shall take place at least once in the morning and once in the afternoon during daylight hours. Loose materials must be immediately removed using a PM_{10} certified vacuum truck or similar mechanical collection process. *[Title V OP, January 11, 2024]*

35. The permittee shall construct a three-sided structure(s) within 3 months of the issuance of this permit to store all unreduced ore. *[Title V OP, January 11, 2024]*

36. The unreduced ore stockpiles contained within the three-sided structure shall not exceed the height of the containment walls. *[Title V OP, January 11, 2024]*

37. The permittee shall limit loader/forklift driving speeds to 10 MPH or less to reduce fugitive visible emissions. The permittee shall create, document, and have a signed training plan, from each loader/forklift operator, on the techniques for reducing speed at which the loader/forklift is driven to minimize fugitive visible emissions. *[Title V OP, January 11, 2024, revised/clarified with Renewal Application April 2, 2024]*

38. The permittee shall create, document, and have a signed training plan, from each loader operator, on the techniques for reducing the rate at which on-site reduced ore is dumped from the loader bucket into the polishing bins to minimize fugitive visible emissions. *[Title V OP, January 11, 2024]*

39. The permittee shall create, document, and have a signed training plan, from each forklift operator, on the techniques for reducing the rate at which prereduced ore is emptied from supersacks into the polishing bins to minimize fugitive visible emissions. *[Title V OP, January 11, 2024, revised/clarified with Renewal Application April 2, 2024]*

Sulfiding

40. The permittee shall vent the sulfiding tanks to a scrubbing system that limits the emissions of H_2S from the sulfiding operation to less than 0.005 pounds per hour (EU: MN05). The sulfiding operation may not take place without the control device operating and in satisfactory condition. *[NSR ATC/OP Mod 13, June 1, 2010 & AQR 12.4 ATC, December 5, 2018]*

41. The permittee shall maintain the caustic solution specific gravity in the scrubbing system between 1.05 and 1.25. *[AQR 12.4 ATC, December 5, 2018]*

42. The permittee shall equip and operate the scrubbing system required for the sulfiding tanks with a device that indicates the differential pressure between the inlet and the outlet of the unit. This device shall be operated, calibrated, and maintained in accordance with the manufacturer's specifications (EU: MN05). *[NSR ATC/OP Mod 13, June 1, 2010 & AQR 12.4 ATC, December 5, 2018]*

43. The permittee shall maintain the pressure drop across the scrubbing system within the range specified in Table 4-2 (EU: MN05). *[NSR ATC/OP Mod 13, June 1, 2010 & AQR 12.4 ATC, December 5, 2018]*

EMD

44. The permittee shall operate the EMD cells in a building capable of controlling 75 percent of the emissions. *[AQR 12.4 ATC, December 5, 2018]*

Unit 6 and Processing

45. The permittee shall enclose (or partially enclose) and vent emissions from the crushing unit, screening unit, drying unit, bagging unit, and transfer points associated with the manganese ore processing operations to baghouse control units capable of controlling 98.0 percent of the particulate matter (PM) emitted by these units (EUs: 1C, 2C, 4C, 5C, 6C, and 7C). *[NSR ATC, July 19, 1993 & AQR 12.4 ATC, December 5, 2018]*

46. The manganese ore processing operations may not take place without the corresponding control devices (i.e., drum dryer baghouse, finishing baghouse, crusher baghouse, and mill feed baghouse) operating and in compliance with baghouse monitoring parameters. *[NSR ATC, July 19, 1993 & AQR 12.4 ATC, December 5, 2018]*

47. The permittee shall use MERV 16 Teflon-coated filters (or equivalent) in the Unit 6 rotary drum dryer baghouse (EU: 1D). *[AQR 12.4 ATC, December 5, 2018]*

48. The permittee shall use MERV 16 Teflon-coated filters (or equivalent) in the Unit 6 crusher baghouse (EUs: 1C, 2C, 4C, 5C, 6C, and 7C). *[AQR 12.4 ATC, December 5, 2018]*

49. The permittee shall maintain the pressure drop across the rotary drum dryer baghouse within the range specified in Table 4-2 (EU: 1D). *[AQR 12.4 ATC, December 5, 2018]*

50. The permittee shall maintain the pressure drop across the crusher baghouse within the range specified in Table 4-2 (EUs: 1C, 2C, 4C, 5C, 6C, and 7C). *[AQR 12.4 ATC, December 5, 2018]*

51. The permittee shall use MERV 16 Teflon-coated filters (or equivalent) in the Unit 6 mill feed baghouse (EUs: 1M through 8M) *[AQR 12.4 ATC, December 5, 2018]*

52. The permittee shall use MERV 16 Teflon-coated filters (or equivalent) in the Unit 6 finishing baghouse (EUs: 1F, 2F, 3F, 4F, 5F, 6F, 8F, 9F, 10F, and 11F). *[AQR 12.4 ATC, December 5, 2018]*

53. The permittee shall maintain the pressure drop across the finishing baghouse within the range specified in Table 4-2 (EUs: 1F, 2F, 3F, 4F, 5F, 6F, 8F, 9F, 10F, and 11F). *[AQR 12.4 ATC, December 5, 2018]*

54. The permittee shall maintain the pressure drop across the mill feed baghouse (EUs: 1M–8M) within the range specified in Table 4-2. *[AQR 12.4 ATC, December 5, 2018]*

55. The permittee shall operate Unit 6 in a building with a particulate control efficiency of at least 75 percent. *[AQR 12.4 ATC, December 5, 2018]*

Paved Roads/Parking Areas

56. As necessary, the permittee shall rinse or sweep paved roads accessing or located on the site to remove all accumulated deposits, and so as to not exhibit an average opacity greater than 20 percent for a period (or periods) totaling more than three minutes in any 60-minute period or an instantaneous opacity greater than 50 percent. In addition, silt loading shall not exceed 0.33 ounces per square foot, regardless of the average number of vehicles per day. *[NSR ATC/OP MOD 8, February 27, 2004 & AQR 12.4 ATC, December 5, 2018]*

57. The permittee shall not allow mud or dirt to be tracked out onto a paved road where the mud or dirt extends 50 feet or more in cumulative length from the point of origin, or allow any trackout to accumulate to a depth greater than 0.25 inches. All accumulations of mud or dirt on curbs, gutters, sidewalks, or paved roads, including trackout less than 50 feet in length and 0.25 inches in depth, shall be cleaned of all accumulated deposits and maintained to eliminate emissions of fugitive dust. *[NSR ATC/OP MOD 8, February 27, 2004 & AQR 12.4 ATC, December 5, 2018]*

58. The permittee shall maintain paved roads located on the stationary source, including roads providing exclusive access, by immediately removing road debris and mud or dirt trackout. Maintenance may consist of washing, sweeping, vacuuming, or equivalent control measures (EU: H02).

59. The permittee shall ensure that all loaded trucks, regardless of ownership, are properly covered to prevent visible emissions. *[NSR ATC/OP MOD 8, February 27, 2004 & AQR 12.4 ATC, December 5, 2018]*

60. Regardless of the number of days of use, the permittee shall control particulate matter emissions from any unpaved parking lot owned or operated by the owner/operator by paving, applying a dust palliative, or using an alternative method approved by the Control Officer. *[NSR ATC/OP MOD 8, February 27, 2004 & AQR 12.4 ATC, December 5, 2018]*

61. When a stationary source, or a portion thereof, is to be closed or idled for 30 days or more, the permittee shall implement long-term stabilization of disturbed areas within 10 days of the cessation of active operations. Long-term stabilization includes, but is not limited to, one or more of the following: applying water to form a crust, applying palliatives, applying gravel, paving, denying unauthorized access, or other effective control measure to prevent fugitive dust from becoming airborne. *[NSR ATC/OP MOD 8, February 27, 2004 & AQR 12.4 ATC, December 5, 2018]*

Cooling Towers

62. The permittee shall operate and maintain all cooling towers (EUs: CT03 and CT04) in accordance with the manufacturer's specifications. No chromium-containing compounds shall be used for water treatment. *[NSR ATC/OP Mod 9, June 2, 2004 & AQR 12.4 ATC, December 5, 2018, Title V OP, January 11, 2024, Minor Revision Application, November 13, 2023]*

63. The permittee shall equip and operate the cooling tower (EUs: CT03 and CT04) with drift eliminators that have a manufacturer's maximum drift rate of 0.001 percent. *[NSR ATC/OP Mod 9, June 2, 2004 & AQR 12.4 ATC, December 5, 2018, Title V OP, January 11, 2024, Minor Revision Application, November 13, 2023]*

64. The permittee shall limit the TDS content of the cooling tower (EUs: CT03 and CT04) recirculation water so it does not exceed 4,000 ppm. *[NSR ATC/OP Mod 9, June 2, 2004 & AQR 12.4 ATC, December 5, 2018, Title V OP, January 11, 2024, Minor Revision Application, November 13, 2023]*

Gasoline Tank (EU: T01)

65. The permittee shall implement control technology requirements on gasoline-dispensing equipment as follows: *[NSR ATC/OP Mod 13, June 1, 2010 & AQR 12.4 ATC, December 5, 2018]*

    i. The permittee shall not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Preventative measures to be taken include, but are not limited to, the following:

        (1) Minimize gasoline spills.

        (2) Clean up spills as expeditiously as practicable.

        (3) Cover all open gasoline containers and all gasoline storage tank fill pipes with a gasketed seal when not in use.

        (4) Only load gasoline into storage tanks using a submerged fill tube where the greatest distance from the bottom of the storage tank to the fill tube opening is no more than six inches.

    ii. The permittee shall install, maintain, and operate a Phase I Vapor Recovery System on all gasoline storage tanks that meets the following requirements:

        (1) The Phase I Vapor Recovery System shall be rated with at least 95.0 percent control efficiency when in operation. This system shall be certified by an industry-recognized certification body, i.e., California Air Resources Board (CARB) or equivalent.

        (2) The Phase I Vapor Recovery System shall be a dual-point vapor balance system, as defined by 40 CFR Part 63.11132, in which the storage tank is equipped with an entry port for a gasoline fill pipe and a separate exit port for a vapor connection.

        (3) All Phase I vapor recovery equipment shall be installed and operated in accordance with the manufacturer's specifications and certification requirements.

        (4) All Phase I vapor recovery equipment shall be maintained in good working order.

        (5) All vapor connections and lines on storage tanks shall be equipped with closures that seal upon disconnect.

        (6) The vapor line from the gasoline storage tanks to the gasoline cargo tank shall be vapor-tight, as defined in 40 CFR Part 63.11132.

        (7) The vapor balance system shall be designed such that the pressure in the cargo tank does not exceed 18 inches water pressure or 5.9 inches water vacuum during product transfer.

        (8) The vapor recovery and product adaptors, and the method of connection with the delivery elbow, shall be designed to prevent the overtightening or loosening of fittings during normal delivery operations.

        (9) If a gauge well separate from the fill tube is used, it shall be provided with a submerged drop tube that extends the same distance from the bottom of the tank as the fill tube.

(10) Liquid fill connections for all systems and vapor return shall be equipped with vapor-tight caps.

(11) A pressure/vacuum (PV) vent valve on each gasoline storage tank system shall be installed, maintained, and operated in accordance with the manufacturer's specifications.

(a) The pressure specifications for PV vent valves shall be a positive pressure setting of 2.5 to 6.0 inches of water, and a negative pressure setting of 6.0 to 10.0 inches of water.

(b) The total leak rate of all PV vent valves at the affected facility, including connections, shall not exceed 0.17 ft^3/hr at a pressure of 2.0 inches of water and 0.63 cubic ft^3/hr at a vacuum of 4 inches of water. *[NSR ATC/OP Mod 13, June 1, 2010]*

iii. The vapor balance system shall be capable of meeting the static pressure performance requirement in 40 CFR Part 63, Subpart CCCCCC, Table 1, Part 1, and shall comply with the equation Pf = 2e-500.887/v.

iv. The permittee shall comply with good management practices during the unloading of cargo as follows:

(1) All hoses in the vapor balance system shall be properly connected.

(2) The adapters or couplers that attach to the vapor line on the storage tank shall have closures that seal upon disconnect.

(3) All vapor return hoses, couplers, and adapters used in the gasoline delivery shall be vapor-tight.

(4) All tank truck vapor return equipment shall be compatible in size and form a vapor-tight connection with the vapor balance equipment on the gasoline dispensing facility storage tank.

(5) All hatches on the tank truck shall be closed and securely fastened.

(6) The filling of storage tanks shall be limited to unloading from vapor-tight gasoline cargo tanks carrying onboard documentation that they have met the specifications of EPA Test Method 27.

v. The permittee shall implement a Phase II Vapor Recovery System on all gasoline dispensing equipment that meets the following requirements:

(1) The source shall install, maintain, and operate a Phase II Vapor Recovery System that is certified to meet at least 95.0 percent control efficiency when in operation and is approved by the Control Officer. This system shall be certified by an industry-recognized certification body, i.e., CARB or equivalent.

(2) All Phase II vapor recovery equipment shall be installed and operated in accordance with the manufacturer's specifications and certification requirements.

(3) All Phase II vapor recovery equipment shall be maintained in good working order.

(4) The gasoline product and vapor return hoses shall be coaxial.

(5) Hose breakaway(s) shall be approved by the certification body.

(6) The maximum allowable hose length shall be in accordance with the certification requirements.

(7) Each balance Phase II Vapor Recovery System dispenser shall limit each nozzle's gasoline dispensing rate to the corresponding certification values. Dispenser fuel flow restrictors shall be installed as necessary, and must be approved by an industry recognized certification body, i.e., CARB or equivalent.

ABM Plant

66. The permittee shall use MERV 15 filters (or equivalent) in the ABM baghouses serving EUs ABM01–ABM04. *[AQR 12.4 ATC, December 5, 2018]*

67. The permittee shall maintain the pressure drop across the baghouses within the range specified in Table 4-2 (EUs: ABM01–ABM04). *[NSR ATC/OP Mod 13, June 1, 2010 & AQR 12.4 ATC, December 5, 2018]*

Other

68. The permittee shall not cause or permit the handling, transporting, or storage of any material in a manner that allows or may allow controllable particulate matter to become airborne. *[AQR 41.1.2]*

69. The permittee shall control fugitive dust emissions from any disturbed open area or disturbed vacant lot that is owned or operated by the owner/operator by paving, applying gravel, applying a dust palliative, or applying water to form a crust. Areas deemed disturbed shall be determined using the drop ball test described in AQR 90. *[NSR ATC/OP MOD 8, February 27, 2004 & AQR 12.4 ATC, December 5, 2018]*

70. The permittee shall comply with the control requirements contained in this section. If there is an inconsistency between standards or requirements, the most stringent standard or requirement shall apply. *[NSR ATC/OP Mod 13, June 1, 2010 & AQR 12.4 ATC, December 5, 2018]*

3.0 LIMITATIONS AND STANDARDS

3.1 OPERATIONAL LIMITS

Generators

1. The permittee shall limit the operation of the diesel-fired emergency generators (EUs: A01 – A04) for testing and maintenance purposes to 100 hours/year. The permittee may operate the emergency generators up to 50 hours/year for nonemergency situations, but those hours count towards the 100 hours provided for testing and maintenance. Except as provided below (1.a), the 50 hours per year for nonemergency use cannot be used for peak shavings or nonemergency demand response, or to generate income for a facility by supplying power to an electric grid or to otherwise supply power as part of a financial arrangement with another entity: *[40 CFR Part 63.6640]*

    a. The 50 hours per year for nonemergency use can be used to supply power as part of a financial arrangement with another entity if all the following conditions are met:

        i. The engine is dispatched by the local balancing authority and/or local transmission and distribution operator.

        ii. The dispatch is intended to mitigate local transmission and/or distribution limitations to avert potential voltage collapse or line overloads that could lead to interruption of power supply in a local area or region.

        iii. The dispatch follows reliability, emergency operation, or similar protocols that follow specific NERC, regional, state, public utility commission, or local standards or guidelines.

        iv. The power is provided only to the facility itself or to support the local transmission and distribution system.

        v. The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission, or local standards or guidelines that are being followed for the dispatching engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

Gasoline Dispensing

2. The permittee shall limit the throughput of gasoline in the gasoline dispensing system (EU: T01) to 8,700 gallons per year. *[NSR ATC/OP Mod 12, November 12, 2009 & AQR 12.4 ATC, December 5, 2018]*

Boilers

3. The permittee shall limit the operation of the boiler (EU: A07) to 4,000 hours in any consecutive 12 months. *[AQR 12.4 ATC, December 5, 2018]*

Disturbed Areas

4. The permittee shall limit the total area of disturbed surfaces (EU: B01) to 6.00 acres at any time. *[NSR ATC/OP Mod 12, November 12, 2009 & AQR 12.4 ATC, December 5, 2018]*

Stockpiles-MnO_2 Process

5. The permittee shall limit the area of ore storage stockpile to 1.0 acre in total at any time. (EU: MN06A) *[NSR ATC/OP Mod 13, June 1, 2010 and AQR 12.4 ATC, December 5, 2018]*

6. The permittee shall limit the area of the crushed plate stockpile to 0.1 acre at any time. (EU: MN06B) *[NSR ATC/OP Mod 13, June 1, 2010 and AQR 12.4 ATC, December 5, 2018]*

Boron Processes

7. The permittee shall limit the production of boron (EUs: E003 and E004) to 120,000 pounds in any consecutive 12 months. *[NSR ATC, July 13, 1994 and AQR 12.4 ATC, December 5, 2018]*

Boron Trichloride Process

8. The permittee shall limit the production of boron trichloride (EU: F006) to 1,204,500 pounds in any consecutive 12 months. *[NSR ATC/OP, November 3, 2008 and AQR 12.4 ATC, December 5, 2018]*

Manganese Dioxide Processes

9. The permittee shall limit the throughput of unreduced MnO_2 ore in this manufacturing process to an average of 6.25 tons per hour (based on a 24-hour clock period). *[NSR ATC, July 19, 1993 and AQR 12.4 ATC, December 5, 2018]*

10. The permittee shall limit the total throughput of unreduced ore and prereduced ore to 40,000 tons in any consecutive 12 months, combined, on a dry basis. *[AQR 12.4 ATC, December 5, 2018]*

11. The permittee shall only operate two hearths, and shall limit the throughput of unreduced MnO_2 ore to 1,579 tons per month and 18,948 tons in any consecutive 12 months. *[AQR 12.4 ATC, December 5, 2018]*

12. The permittee shall limit the natural gas fuel consumed in the open hearth roasting operation to a maximum of 96,000,000 standard cubic feet in any consecutive 12 months. *[Hearing Officer's Order amended September 19, 2019]*

Sulfiding Process

13. The permittee shall limit the throughput of H_2S gas in the sulfiding operation (EU: MN05) to 100.0 pounds per hour. *[NSR OP, September 17, 1993 & AQR 12.4 ATC, December 5, 2018]*

Unit 6 (EMD) and Processing

14. The permittee shall limit the cells in the EMD process (EU: MN04) to 217 at any time. *[AQR 12.4 ATC, December 5, 2018]*

15. The permittee shall limit the EMD production to 30,100 tons in any consecutive 12 months. *[AQR 12.4 ATC, December 5, 2018]*

Paved Haul Roads

16. The permittee shall limit the vehicle miles traveled (VMT) on paved roads (EU: G01) to 5,866 miles in any consecutive 12 months. *[NSR ATC/OP Mod 13, June 1, 2010 & AQR 12.4 ATC, December 5, 2018]*

ABM Plant

17. The permittee shall limit the throughput of manganese dioxide to an average of 300.0 pounds per hour (based on a 24-hour clock period) and 1,314 tons per year for the ABM plant (EUs: ABM01, ABM02, ABM03, and ABM04). *[AQR 12.4 ATC, December 5, 2018]*

3.2 EMISSION LIMITS

1. The permittee shall not allow any emission unit to emit more than an average of 20 percent opacity for more than six consecutive minutes unless otherwise limited. *[AQR 26.1]*
2. The permittee shall not allow emission units in the Boron Trichloride Process to emit one pound per hour (1 lb/hr) or more of molecular chlorine (EU: F006). *[AQR 33.2]*
3. The permittee shall limit emissions from the Boron Process (EU: E003) to an average of 10 percent opacity for a period(s) aggregating more than three minutes in any 60-minute period when viewed in accordance with EPA Test Method 9. *[NSR ATC/OP Mod 13, June 1, 2010 & AQR 12.4 ATC, December 5, 2018]*
4. The permittee shall limit emissions from the Boron Process crusher (EU: E004) to an average of 15 percent opacity for a period or periods aggregating more than three minutes in any 60-minute period when viewed in accordance with Method 9. *[NSR ATC/OP Mod 13, June 1, 2010 and AQR 12.4 ATC, December 5, 2018]*
5. The permittee shall limit visible emissions from the Boron Trichloride Processes such that emissions shall not exceed 10 percent opacity for any consecutive six-minute period (EU: F006). *[NSR ATC/OP Mod 13, June 1, 2010; AQR 26.2; and AQR 12.4 ATC, December 5, 2018]*
6. The permittee shall limit visible emissions from any emission unit or fugitive source associated with the MnO_2 process (that is not an enclosed process) such that emissions shall not exceed 10 percent opacity for any consecutive six-minute period (EUs: MN01A, MN01B, MN01C, MN01D, 9555, 9556, 1D, 1C, 2C, 4C, 5C, 6C, 7C, 1M, 2M, 3M, 4M, 5M, 6M, 7M, 8M, 1F, 2F, 3F, 4F, 5F, 6F, 8F, 9F, 10F, 11F, M02, MN02, MN03). *[AQR 26.2]*
7. The permittee shall not allow the actual emissions from the following individual emission units to exceed the PTE listed in Table 3-1 in any consecutive 12-month period, except for emission units intended only for use in emergencies. *[AQR 12.4 ATC, December 5, 2018, Renewal Application, May 2, 2024]*

Table 3-1: Emission Unit PTE – Source Wide (tons per year)

EU	Condition	PM_{10}	$PM_{2.5}$	NO_X	CO	SO_2	VOC	HAP (Mn Compounds)	HAP (Pb Compounds)	Total HAPS	H_2S	HCl	Cl_2
Emergency Generators													
A01	500 hr/yr	0.05	0.05	0.71	0.15	2.78E-04	0.06	4.83E-04	2.43E-04	0.03	0	0	0
A02	500 hr/yr	0.09	0.09	1.29	0.28	5.02E-04	0.10	8.72E-04	4.39E-04	0.05	0	0	0
A03	500 hr/yr	0.09	0.09	1.29	0.28	5.02E-04	0.10	8.72E-04	4.39E-04	0.05	0	0	0
A04	500 hr/yr	0.23	0.23	3.28	0.71	1.28E-03	0.26	2.22E-03	1.12E-03	0.13	0	0	0
Large Boilers													
A05	8,760 hr/yr	3.09	3.09	12.69	1.69	0.25	2.28	1.58E-04	2.07E-04	0.78	0	0	0
A07	4,000 hr/yr	0.92	0.92	14.69	0.72	0.09	0.78	5.36E05	7.06E-05	0.27	0	0	0
Roads and Disturbed Surfaces													
B01	6.00 acres	1.82	0.18	0.00	0.00	0.00	0.00	0.00	1.55E-02	0.02	0.00	0.00	0.00
G01	5,866 miles	0.44	0.00	0.00	0.00	0.00	0.00	0.00	7.55E-05	7.55E-05	0.00	0.00	0.00
Boron Process													
E003	8,760 hr/yr	0.15	0.02	0.00	0.00	0.00	0.00	0.00	0	0.00	0	0	0
E004		0.35	0.05	0.00	0.00	0.00	0.00	0.00	0	0.00	0	0	0
Boron Trichloride Process													
F006	8,760 hr/yr	1.64	0.98	0.00	0.00	0.00	0.00	0.00	0	0.40	0	0.39	0.01
Manganese Dioxide													
MN01A	18,948 ton/yr	10.64	1.61	0.00	0.00	0.00	0.00	9.79	5.23E-03	9.84	0	0	0
MN01B	18,948 ton/yr												
MN01C	18,948 ton/yr												
MN01D	18,948 ton/yr												

EU	Condition	PM_{10}	$PM_{2.5}$	NO_X	CO	SO_2	VOC	HAP (Mn Compounds)	HAP (Pb Compounds)	Total HAPS	H_2S	HCl	Cl_2
9555	40,000 ton/yr												
9556	40,000 ton/yr												
1D	8,760 hr/yr	0.44	0.44	1.59	1.34	0.01	0.09	0.44	3.78E-04	0.47	0	0	0
1C	30,100 ton/yr	1.32	0.20	0.00	0.00	0.00	0.00	1.32	1.12E-02	1.32	0	0	0
2C	30,100 ton/yr												
4C	30,100 ton/yr												
5C	30,100 ton/yr												
6C	30,100 ton/yr												
7C	30,100 ton/yr												
1M	30,100 ton/yr	1.08	0.16	0.00	0.00	0.00	0.00	1.08	9.16E-03	1.08	0	0	0
2M	30,100 ton/yr												
3M	30,100 ton/yr												
4M	30,100 ton/yr												
5M	30,100 ton/yr												
6M	30,100 ton/yr												
7M	30,100 ton/yr												

EU	Condition	PM_{10}	$PM_{2.5}$	NO_X	CO	SO_2	VOC	HAP (Mn Compounds)	HAP (Pb Compounds)	Total HAPS	H_2S	HCl	Cl_2
8M	30,100 ton/yr												
1F	30,100 ton/yr	0.80	0.12	0.00	0.00	0.00	0.00	0.80	6.83E-03	0.80	0	0	0
2F	15,050 ton/yr												
3F	15,050 ton/yr												
4F	30,100 ton/yr												
5F	30,100 ton/yr												
6F	30,100 ton/yr												
8F	30,100 ton/yr												
9F	30,100 ton/yr												
10F	30,100 ton/yr												
11F													
M02	30,100 ton/yr	0.04	0.01	0.00	0.00	0.00	0.00	0.04	3.20E-04	0.04	0	0	0
MN02	8,760 hr/yr	4.76	4.07	0.00	11.61	0.00	0.00	4.76	2.38E-03	4.76	0	0	0
MN03	8,760 hr/yr	4.53	0.79	4.80	3.09	0.03	0.26	4.53	2.27E-03	4.63	0	0	0
Electrolytic Manganese Dioxide Cells													
MN04	30,100 ton/yr	0.31	0.31	0.00	0.00	0.00	0.00	0.02	2.62E-03	0.02	0	0	0
Sulfiding													
MN05	8,760 hr/yr	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.02	0	0

EU	Condition	PM_{10}	$PM_{2.5}$	NO_X	CO	SO_2	VOC	HAP (Mn Compounds)	HAP (Pb Compounds)	Total HAPS	H_2S	HCl	Cl_2
Process Stockpiles													
MN06A	1.10 total acres	0.31	0.05	0.00	0.00	0.00	0.00	0.28	2.64E-03	0.28	0	0	0
MN06B													
Cooling Towers													
CT03	8,760 hr/yr	0.13	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CT04	8,760 hr/yr	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Gasoline Dispensing													
T01	8,700 gal/yr	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	9.50E-04	0.00	0.00	0.00
Electrolytic Manganese Dioxide													
ABM01	8,760 ton/yr	0.05	0.01	0.00	0.00	0.00	0.00	0.05	4.57E-04	0.05	0	0	0
ABM02													
ABM03													
ABM04													

8. The permittee shall not allow the actual emissions from the following individual emission units or stacks to exceed the values listed in Table 3-2. *[AQR 12.4 ATC, December 5, 2018]*

Table 3-2: Emissions Limits and Standards

Process, EUs, Test Points	CD#	Pollutant	Limit Value
Boiler A05, Stack Outlet	N/A	NO_X	2.90 lb/hr
			25 ppm
		CO	0.39 lb/hr
			6 ppm
Boiler A07, Stack Outlet	N/A	NO_X	7.34 lb/hr
			84 ppm
		CO	0.36 lb/hr
			7 ppm
Boron Trichloride Process F006, Wet Scrubber Stack	CD-B1	PM	0.488 lb/hr
		HCl	0.09 lb/hr
		Cl_2	0.003 lb/hr
Boron Process E003, Baghouse	CD-B2	PM	0.035 lb/hr
		Opacity	10%
Boron Process E004, Baghouse	CD-B3	PM	0.080 lb/hr
		Opacity	15%
MnO_2 Process Crushing/ Screening 1C-7C, Crusher Baghouse (Inlet and Outlet)	CD-M1	PM	0.14 lb/hr
		Opacity	10%
MnO_2 Process Drum Dryer 1D, Rotary Drum Dryer Baghouse	CD-M2	PM	0.10 lb/hr
		Opacity	10%
MnO_2 Process Bagging 1F-11F, Finishing Baghouse	CD-M3	PM	0.16 lb/hr
		Opacity	10%
MnO_2 Process Crushed Plate Transfer Equipment 1M-8M, Mill Feed Baghouse	CD-M4	PM	0.24 lb/hr
		Opacity	10%
MnO_2 Process H_2S Caustic Scrubber: MN05	CD-L1	H_2S	0.005 lb/hr
MnO_2 Process H_2S Lime Scrubber: MN05	CD-L2	H_2S	0.005 lb/hr
CO Control Device MN03 (Inlet and Outlet for CO efficiency)	CD-H1	CO	80% overall control efficiency[1]
		CO	0.71 lb/hr
		PM	1.04 lb/hr
		$PM_{2.5}$	0.18 lb/hr
		Opacity	7%

Process, EUs, Test Points	CD#	Pollutant	Limit Value
Hearth Baghouse MN02	CD-H2	PM	1.09 lb/hr
		$PM_{2.5}$	0.93 lb/hr
		CO	33.12 lb/hr
		Opacity	7% instantaneous value
ABM Processes ABM01-ABM04, HE Fabric Filters No.1, 2, 3 and 4 and Baghouse/HEPA Filter Combination Controls. No. 1, 2, 3 and 4	CD-A1	PM	0.0038 lb/hr
		Opacity	10%
	CD-A2	PM	0.0028 lb/hr
		Opacity	10%
	CD-A3	PM	0.0043 lb/hr
		Opacity	10%
	CD-A4	PM	0.0014 lb/hr
		Opacity	10%
EMD Cells MN04	N/A	PM	0.07 lb/hr
		Mn Compounds	0.004 lb/hr

[1] Includes fugitives, uncaptured, captured, and controlled CO emissions.

4.0 COMPLIANCE DEMONSTRATION REQUIREMENTS

4.1 MONITORING

Visible Emissions [AQR 12.5.2.6(d) & AQR 12.5.2.8]

1. The Responsible Official shall sign and adhere to the *Visible Emissions Check Guidebook* and keep a copy of the signed guide on-site at all times.

2. The permittee shall conduct visible emissions checks for visible emissions from the facility while it is in operation, in accordance with Table 4-1.

Table 4-1: Visible Emissions Check Frequency

Facility	Frequency
Emergency Engines (EUs: A01–A04)	Weekly
Boilers (EUs: A05 & A07)	Monthly
Boron and Boron Trichloride (EUs: A003, A004 & F006)	Daily
MnO_2 Hearth Operations and Polishing Bins (EUs: MN02, MN03, 9555 & 9556)	Twice Daily
MnO_2 Processes (all other emission units in the MnO_2 process not otherwise identified in this table)	Daily
ABM (EUs: ABM01–ABM04)	Daily
Roads, Disturbed Surfaces, Stockpiles (EUs: G01, B01, MNO6A & MNO6B)	Monthly

3. If no plume appears to exceed the opacity standard during the visible emissions check, the date, location, and results shall be recorded, along with the viewer's name.

4. If a plume appears to exceed the opacity standard, the permittee shall do one of the following:

    a. Immediately correct the perceived exceedance, then record the first and last name of the person who performed the emissions check, the date the check was performed, the unit(s) observed, and the results of the observation; or

    b. Call a certified Visible Emissions Evaluation (VEE) reader to perform a U.S. Environmental Protection Agency (EPA) Method 9 evaluation.

        i. For sources required to have a certified reader on-site, the reader shall start Method 9 observations within 15 minutes of the initial observation. For all other sources, the reader shall start Method 9 observations within 30 minutes of the initial observation.

        ii. If no opacity exceedance is observed, the certified VEE reader shall record the first and last name of the person who performed the VEE, the date the VEE was performed, the unit(s) evaluated, and the results. A Method 9 VEE form shall be completed for each emission unit that was initially perceived to have exceeded the opacity limit, and the record shall also indicate:

(1) The cause of the perceived exceedance;

(2) The color of the emissions; and

(3) Whether the emissions were light or heavy.

iii. If an opacity exceedance is observed, the certified VEE reader shall take immediate action to correct the exceedance. The reader shall then record the first and last name of the person performing the VEE, the date the VEE was performed, the unit(s) evaluated, and the results. A Method 9 VEE form shall be completed for each reading identified, and the record shall also indicate:

(1) The cause of the exceedance;

(2) The color of the emissions;

(3) Whether the emissions were light or heavy;

(4) The duration of the emissions; and

(5) The corrective actions taken to resolve the exceedance.

5. Any scenario of visible emissions noncompliance can and may lead to enforcement action.

Boron and Boron Trichloride Processes [AQR 12.5.2.6(d) & AQR 12.5.2.8]

6. The permittee shall monitor the daily production of boron.

7. The permittee shall monitor the daily production of boron trichloride.

8. The permittee shall monitor the boron and boron trichloride processes pursuant to Table 4-2.

Baghouse Requirements [AQR 12.5.2.6(d) & AQR 12.5.2.8]

9. The permittee shall conduct daily monitoring of the pressure drop across each baghouse cell with the installation and operation of a pressure differential (Magnehelic) gauge per manufacturer's specifications.

10. The permittee shall conduct daily monitoring of the pressure drop across each baghouse cell with the installation and operation of a pressure differential (Magnehelic) gauge per manufacturer's specifications.

11. The permittee shall conduct the following monthly external inspections of each baghouse while it is running to ensure that equipment is maintained in good working order and operated according to manufacturer's specifications:

a. Verification of the pulse timing sequence;

b. Verification that the cleaning system does not appear unusual, and that fans are running and do not exhibit unusual sounds or vibrations; and

c. Verification that seams, connections, and housings are sealed and leak-free, including walls, hoppers, ducting, and piping.

12. If an inspection shows that maintenance is necessary, the permittee shall schedule and complete such maintenance within five working days. If the malfunction renders the baghouse ineffective in controlling particulate emissions, material processing shall stop until repairs to the baghouse are completed.

13. The permittee shall visually inspect each baghouse interior at least annually to determine the internal mechanical integrity of the unit and spot any defects. Defective compartments shall be sealed off and repairs completed within five working days. If the malfunction renders the baghouse ineffective in controlling particulate emissions, material processing shall stop until repairs to the baghouse are completed.

14. The permittee shall have a standard operating procedures (SOP) manual for baghouses. The procedures specified in the manual for maintenance shall, at a minimum, include a preventative maintenance schedule that is consistent with the baghouse manufacturer's instructions for routine and long-term maintenance.

15. The permittee shall conduct daily visual observations of baghouse and/or stack discharges to verify that visible emissions are not present in excess of allowable opacity limits, in accordance with the procedures specified in Section 4.1- Visible Emissions. If excess visible emissions are present, the permittee shall stop the operations producing the emissions until the problem is corrected.

Control Devices [AQR 12.5.2.6(d) & AQR 12.5.2.8]

16. Control devices shall be monitored to demonstrate compliance with the operating range in accordance with Table 4-2. *[AQR 12.4 ATC, December 5, 2018]*

Table 4-2: Control Requirements and Monitoring of Control Devices

Control Device Number	Processes Served (EU(s))	Operating Range(s)	Monitoring Method(s) and Frequency(s)
CD-B1	Boron Trichloride Process, F006, Wet Scrubber	Caustic circulation flow greater than or equal to 80 gpm. Scrubber demister on the inlet to the BCl_3 scrubber fan differential pressure between 0.5" and 5.0" water column. Caustic solution specific gravity between 1.05 and 1.25.	Caustic solution flow continuous readout checked and recorded daily. Demister differential pressure continuous readout checked and recorded daily. Caustic solution specific gravity checked and recorded daily. Continuous monitoring system with alarm bell at less than 1.08 for specific gravity (HOO)
CD-B2	Boron Process, Boron Grinding Mill and Crusher, E003, Baghouse	Pressure differential between 0.5" and 6.0" water column.	Differential pressure checked and recorded at least daily.

Control Device Number	Processes Served (EU(s))	Operating Range(s)	Monitoring Method(s) and Frequency(s)
CD-B3	Boron Process, Boron Firing Chamber, E004, Baghouse	Pressure differential between 0.5” and 6.0” water column.	Differential pressure checked and recorded at least daily.
CD-M1	MnO_2 Process Crushing/Screening, 1C, 2C, 4C-7C, Crusher Baghouse	Pressure differential between 1.0” and 8.0” water column.	Differential pressure checked and recorded at least daily.
CD-M2	MnO_2 Process Drum Dryer, 1D, Rotary Drum Dryer Baghouse	Pressure differential between 1.0” and 8.0” water column.	Differential pressure checked and recorded at least daily.
CD-M3	MnO_2 Process Bagging, 1F-6F, 8F-11F, Finishing Baghouse	Pressure differential between 1.0” and 8.0” water column.	Differential pressure checked and recorded at least daily.
CD-M4	MnO_2 Process Crushed Plate Transfer Equipment, 1M-8M, Mill Feed Baghouse	Pressure differential between 1.0” and 8.0” water column.	Differential pressure checked and recorded at least daily.
CD-L1	MnO_2 Process H_2S Caustic Scrubber, MN05	Vacuum Indicator PI-14 in negative pressure.	Pressure alarm set at -0.5” water column. Checked and recorded at least daily. Continuous monitoring system for specific gravity (HOO)
CD-L2	MnO_2 Process H_2S Lime Scrubber, MN05	Vacuum Indicator PI-15 in negative pressure.	Pressure alarm set at -0.5” water column. Checked and recorded at least daily.
CD-H1	Hearth CO Control Device, MN03	Catalyst bed temperature: greater than or equal to 450ºF. Gas Flow to CO Control: greater than or equal to 5,000 scfm (2,500 scfm each hood)	Low temperature alarm set at 475ºF. Temperature checked and recorded daily. Gas flow checked and recorded daily. Low flow alarm if flow drops below 6,000 SCFM. (HOO)
CD-H2	Hearth Baghouse, MN02, 9555 and 9556	Pressure differential between 1.0” and 9.0” water column.	High pressure alarm set at 7.0” water column. Low pressure alarm set at 3.0” water column. Pressure checked and recorded at least daily.
CD-A1	ABM Process Baghouse 1, ABM01, Jet Mill System Collector	Pressure differential between 1.0” and 10.0” water column.	Differential pressure checked and recorded at least daily.
CD-A2	ABM Process Baghouse 2, ABM02, Classifier “A” System Collector	Pressure differential between 1.0” and 10.0” water column.	Differential pressure checked and recorded at least daily.
CD-A3	ABM Process Baghouse 3, ABM03, DPM Mill Collector	Pressure differential between 1.0” and 10.0” water column.	Differential pressure checked and recorded at least daily.

Control Device Number	Processes Served (EU(s))	Operating Range(s)	Monitoring Method(s) and Frequency(s)
CD-A4	ABM Process Baghouse 4, ABM04, Conversion Calciner Baghouse	Pressure differential between 0.5" and 6.0" water column.	Differential pressure checked and recorded at least daily.

Boilers

17. The permittee shall install and maintain a nonresettable fuel meter on EU A05 to monitor the monthly fuel use. *[AQR 12.5.2.6(d) & 40 CFR Part 60, Subpart D_C]*

18. The permittee shall install an hour meter to monitor the monthly hours of operation of EU A07. *[AQR 12.5.2.6(d)]*

19. Fuel burning units are required to undergo periodic burner efficiency testing, which is subject to the department's *Guidelines for Source Testing (9/19/2019)*. *[AQR 12.5.2.6(d)]*

20. The permittee shall conduct a boiler tune up (EUs: A05 & A07) complying with 40 CFR Part 63.7540(a)(12) every five years. *[AQR 12.4 ATC December 5, 2018 & 40 CFR Part 63, Subpart DDDDD]*.

21. The permittee shall conduct a burner efficiency test (boiler tune-up) and inspection on each unit (EUs: A05 & A07) according to the following: *[AQR 12.5.2.6(d); GST; NSR ATC/OP February 27, 2004]*

    a. The burner efficiency test shall be conducted in accordance with the manufacturer's recommendations and good combustion practices.

    b. The burner efficiency test and inspection shall be conducted twice each calendar year, at least five months apart but no more than seven.

    c. A performance test conducted in accordance with the *department's Guideline for Source Testing (9/19/2019)* (GST) may replace a burner efficiency test.

    d. A boiler tune up conducted in accordance with 40 CFR Part 63.7540(a)(12) may replace a burner efficiency test.

Emergency Generators

22. The permittee shall operate each emergency generator (EUs: A01–A04) with a nonresettable hour meter and monitor the duration of operation for testing, maintenance, and nonemergency operation, and separately for emergencies. The nature of the emergency leading to operation shall be documented. *[40 CFR Part 63, Subpart ZZZZ & AQR 12.5.2.6(d)]*

23. The permittee shall monitor the sulfur content and cetane index or aromatic content of the fuel burned in the emergency generator (EU: A01 – A04) by retaining a copy of vendor fuel specifications. *[40 CFR 63.6604(b)]*

Cooling Towers

24. The permittee shall monitor the TDS of the cooling tower recirculation water monthly using a conductivity meter, or another device approved in advance by the Control Officer (EUs: CT03 and CT04). *[NSR ATC/OP Mod 13, June 1, 2010 & AQR 12.5.2.6(d), Title V OP, January 11, 2024, Minor Revision Application, November 13, 2023]*

Gasoline Storage Tank and Gasoline Dispensing

25. The permittee shall monitor the monthly combined throughput of gasoline (EU: T01) in gallons. *[AQR 12.5.2.6(d)]*

26. The permittee shall monitor the fuel storage and dispensing system to determine if components of the system are in compliance with the control requirements of this permit. The monitoring shall consist of, but not be limited to: *[AQR 12.5.2.6(d)]*

    a. Inspecting daily for gasoline spills, and recording the times and dates the source became aware of a spill and cleaned the spill up; and

    b. Inspecting covers on gasoline containers and fill pipes after each respective delivery, and recording the dates of fuel deliveries and corresponding inspections.

27. The permittee shall conduct inspections on the Phase I Vapor Recovery System after each delivery to determine if components of the system are in compliance with the control requirements of this permit, as well as, but not limited to, the following items. The permittee may limit inspections to once daily if multiple deliveries are received in a given day: *[AQR 12.5.2.6(d)]*

    a. The condition of the spill bucket and presence of fuel or debris;

    b. The condition of the vapor cap and cap seal;

    c. The condition of the vapor adapter and adapter seal;

    d. The condition of the fill cap and cap seal;

    e. The tightness of the fill adapter (non-EVR (Enhanced Vapor Recovery) systems);

    f. The condition of the fill tube seal; and

    g. The condition of the PV valve.

28. The permittee shall conduct daily inspections on the Phase II Vapor Recovery System to determine if components of the system are in compliance with the control requirements of this permit, as well as, but not limited to, the following items: *[AQR 12.5.2.6(d)]*

    a. The condition of the hoses;

    b. The condition of the bellows;

    c. The condition of the face seals or environmental compliance device;

d. The condition of spout tips;

e. The functionality of the overhead retractors;

f. The functionality of the nozzle shut-off mechanisms (applicable models only);

g. The vapor and liquid tightness of the system; and

h. That installation and maintenance is in accordance with manufacturer's specifications.

CO Catalyst

29. The permittee shall monitor the CO oxidizer catalyst operating temperature pursuant to Table 4-2. *[AQR 12.5.2.6(d)]*

MnO_2 Processes [AQR 12.5.2.6(d) & AQR 12.5.2.8]

30. The permittee shall monitor the throughput of unreduced ore on a monthly basis.

31. The permittee shall monitor the throughput of prereduced feed on a monthly basis.

32. The permittee shall monitor the natural gas consumed in the open hearth roasting operation on a monthly basis.

33. The permittee shall monitor the total stockpile area of ore and crushed plate on a daily basis.

34. The permittee shall monitor the hearth baghouse pursuant to Table 4-2.

35. The permittee shall monitor the metal content of samples at the frequency specified in the Control Requirements section.

Sulfiding [AQR 12.5.2.6(d) & AQR 12.5.2.8]

36. The permittee shall monitor the amount of H_2S consumed in the sulfiding operation daily.

37. The permittee shall monitor the sulfiding process pursuant to Table 4-2.

EMD Cells [AQR 12.5.2.6(d) & AQR 12.5.2.8]

38. The permittee shall monitor the number of EMD cells used daily.

39. The permittee shall monitor the EMD cells for a paraffin wax layer daily.

Unit 6 Processing

40. The permittee shall monitor and record the monthly tons of EMD produced. *[AQR 12.5.2.6(d)]*

ABM Processes

41. The permittee shall monitor the daily throughput of MnO2 in the ABM process. *[AQR 12.5.2.6(d)]*

42. The permittee shall monitor the ABM process operating parameters pursuant to Table 4-2. *[AQR 12.5.2.6(d)]*

Roads

43. The permittee shall monitor daily the number of VMT on-site by haul trucks entering and leaving, and calculate, on a monthly basis, the VMT as a consecutive 12-month total. *[AQR 12.5.2.6(d)]*

44. The permittee shall verify, on a quarterly basis, the silt loading of paved roads using the method described in AQR 93. *[AQR 12.5.2.6(d)]*

Chlorine

45. The permittee shall submit to the Control Officer, and maintain on site, a plan for monitoring compliance, with 0.003 lbs/hr for boron trichloride process (EU: F006) stack emissions or 1 lb/hr for nonstack chlorine emissions from the boron trichloride process. *[AQR 33.4.2]*

Other

46. Pursuant to AQR 25, any upset/breakdown or malfunction that causes emissions of regulated air pollutants to exceed any limits set by the AQRs, or by this permit, shall be reported to the Control Officer within 24 hours of the onset of the event, followed by a written report within 72 hours. *[AQR 25]*

47. No person shall cause or allow any source to discharge air contaminants (or other materials) in quantities that will cause a nuisance. *[AQR 40]*

48. An odor complaint shall be deemed a violation if a complaint is received and a control officer substantiates that the odor causes a nuisance. *[AQR 43]*

4.2 TESTING

1. At the Control Officer's request, the permittee shall test (or have tests performed) to determine emissions of air contaminants from any source whenever the Control Officer has reason to believe that an emission in excess of those allowed by the AQRs is occurring. The Control Officer may specify testing methods to be used in accordance with good professional practice. The Control Officer may observe the testing. All tests shall be conducted by reputable, qualified personnel. *[AQR 4.2]*

2. At the Control Officer's request, the permittee shall provide necessary holes in stacks or ducts and such other safe and proper sampling and testing facilities, exclusive of instruments and sensing devices, as may be necessary for proper determination of the emission of air contaminants. *[AQR 4.2]*

3. Initial performance testing shall be conducted within 60 days of achieving the maximum production rate at which the source will be operated, but no later than 180 days after initial startup. *[AQR 12.5.2.8(a))]*

4. Annual performance tests, identified in Table 4-3 shall be conducted within the same calendar quarter of the anniversary date of the last successful performance test. *[AQR 12.5.2.8(a)]*

5. Subsequent performance tests, other than annual, identified in Table 4-3 shall be conducted no later than 90 days after the anniversary date of the last performance test. *[AQR 12.5.2.8(a)]*

6. The permittee shall submit to the Control Officer for approval a performance testing protocol that contains testing, reporting, and notification schedules, test protocols, and anticipated test dates no less than 45 days, but no more than 90 days, before the anticipated date of the performance test unless otherwise specified in this permit. *[AQR 12.5.2.8]*

7. The permittee shall submit to EPA for approval any alternative test methods EPA has not already approved to demonstrate compliance with a requirement under 40 CFR Part 60. *[40 CFR Part 60.8(b)]*

8. Performance testing is subject to 40 CFR Part 60.8 (as amended), Subpart A, and *the department's Guideline for Source Testing (9/19/2019)*. Performance testing shall be the instrument for determining initial and subsequent compliance with the emission limitations set forth in Tables 3-1 and 3-2 this permit. *[AQR 12.5.2.8(a)]*

9. The permittee shall follow the performance testing methodologies and frequencies for individual emission units indicated in Table 4-3 and Table 4-3a. *[AQR 12.5.2.8(a)]*

Table 4-3: Performance Testing Procedures and Schedules

Process, EUs, Test Points	CD#	Pollutant	Limit Value	Test Method [2]	Frequency
Boiler A05, Stack Outlet	N/A	NO_X	2.90lb/hr	EPA Method 7E (Chemiluminescence Analyzer), 10 (Analyzer)	5 years
			25 ppm corrected to 3% O_2		
		CO	0.39lb/hr		
			6 ppm corrected to 3% O_2		
Boiler A07, Stack Outlet	N/A	NO_X	7.34 lb/hr	EPA Method 7E (Chemiluminescence Analyzer), 10 (Analyzer)	5 years
			84 ppm corrected to 3% O_2		
		CO	0.36 lb/hr		
			7 ppm corrected to 3% O_2		
Boron Trichloride Process F006, Wet Scrubber Stack	CD-B1	PM	0.488 lb/hr	EPA Method 5 or 201A	5 years
		HCl	0.09 lb/hr	EPA Method 26	
		Cl_2	0.003 lb/hr	EPA Method 26	
Boron Process E003, Baghouse	CD-B2	PM	0.035 lb/hr	EPA Method 5 or 201A	5 years
		Opacity	10%	EPA Method 9	
Boron Process E004, Baghouse	CD-B3	PM	0.080 lb/hr	EPA Method 5 or 201A	5 years
		Opacity	15%	EPA Method 9	

Process, EUs, Test Points	CD#	Pollutant	Limit Value	Test Method [2]	Frequency
MnO_2 Process Crushing/ Screening 1C-7C, Crusher Baghouse	CD-M1	PM	0.14 lb/hr	EPA Method 5, 17, or 201A	3 years
		Opacity	10%	EPA Method 9	
MnO_2 Process Drum Dryer 1D, Cyclone/ Baghouse	CD-M2	PM	0.10lb/hr	EPA Method 5, 17, or 201A	5 years
		Opacity	10%	EPA Method 9	
MnO_2 Process Bagging 1F-11F, Finishing Baghouse	CD-M3	PM	0.16 lb/hr	EPA Method 5, 17, or 201A	3 years
		Opacity	10%	EPA Method 9	
MnO_2 Process Crushed Plate Transfer Equipment 1M-8M, Mill Feed Baghouse	CD-M4	PM	0.24 lb/hr	EPA Method 5, 17, or 201A	3 years
		Opacity	10%	EPA Method 9	
MnO_2 Process H_2S Caustic Scrubber, MN05	CD-L1	H_2S	0.005 lb/hr	EPA Method 15 or 16	5 years
MnO_2 Process H_2S Lime, MN05 Scrubber	CD-L2	H_2S	0.005 lb/hr	EPA Method 15 or 16	5 years
CO Control Device MN03 (Inlet and Outlet for CO)	CD-H1	CO	80% overall reduction efficiency[1]	EPA Method 10	annual
		CO	0.71 lb/hr	EPA Method 10	annual
		PM	1.04 lb/hr	EPA Method 201/201A/202	annual
		$PM_{2.5}$	0.18 lb/hr		
		Opacity	7%	EPA Method 9	
Hearth Baghouse MN02	CD-H2	PM	1.09 lb/hr	EPA Method 5	annual
		$PM_{2.5}$	0.93 lb/hr	EPA Method 5 or 201A	
		CO	33.12 lb/hr	EPA Method 10	
		Opacity	7% instantaneous value	EPA Method 9	
ABM Processes ABM01-ABM04, HE Fabric Filters No.1, 2, 3 and 4 and Baghouse/ Filter Combination Controls. No. 1, 2, 3 and 4	CD-A1	PM	0.0038 lb/hr	EPA Method 5 or 201A	5 years
		Opacity	10%	EPA Method 9	
	CD-A2	PM	0.0028 lb/hr	EPA Method 5 or 201A	
		Opacity	10%	EPA Method 9	
	CD-A3	PM	0.0043 lb/hr	EPA Method 5 or 201A	

Process, EUs, Test Points	CD#	Pollutant	Limit Value	Test Method [2]	Frequency
		Opacity	10%	EPA Method 9	
	CD-A4	PM	0.0014 lb/hr	EPA Method 5 or 201A	
		Opacity	10%	EPA Method 9	
EMD Cells MN04	N/A	PM	0.07 lb/hr	EPA Method 5 or 201A	upon request
		Mn Compounds	0.004 lb/hr	EPA Method 29: Part 60 Appendix A-8	

[1] Includes fugitives, uncaptured, captured, and controlled CO emissions.

10. The Control Officer will consider approving the permittee's request for alternative performance test methods if proposed in writing in the performance test protocols. *[AQR 12.5.2.8(a)]*

11. The permittee shall submit a report describing the results of each performance test to the Control Officer within 60 days of the end of the test. *[AQR 12.5.2.8]*

12. The permittee of any stationary source that fails to demonstrate compliance with emissions standards or limitations during any performance test shall submit a compliance plan to the Control Officer within 90 days of the end of the performance test. *[AQR 10.1 and AQR 12.5.2.8(a)]*

13. If a process requiring a performance test is not in operation, a request for an allowance to conduct the test within 60 days of restarting the process shall be submitted to the Control Officer at least 14 days before the date the test had to be performed. *[AQR 12.5.2.8(a)]*

14. The Control Officer may require additional performance testing when operating conditions appear inadequate to demonstrate compliance with the emissions and/or limitations in this permit. *[AQR 12.5.2.8(a)]*

Specific to Gasoline-Dispensing/Above-Ground Gasoline Storage Tank (EU: T01)

15. The permittee shall conduct Phase I and Phase II vapor recovery tests in accordance with the CARB-approved vapor recovery test procedures (as revised) listed in Table 4-3a, as applicable. *[AQR 12.5.2.8(a) & 40 CFR Part 63.11120]*

16. The permittee shall schedule each vapor recovery test with the Stationary Sources Compliance Section supervisor at least 30 calendar days before the anticipated date of testing unless otherwise specified in this permit. *[AQR 12.5.2.8(a)]*

17. Any approved scheduled vapor recovery system test cannot be canceled and/or rescheduled except with the prior approval of the Control Officer. *[AQR 12.5.2.8(a)]*

18. The permittee shall conduct Phase I and Phase II Vapor Recovery System testing on affected gasoline-dispensing operations equipment according to the following requirements:

a. The permittee shall conduct an initial vapor recovery system test within 180 days of startup of new equipment, or when the integrity of the vapor recovery system has been affected by a modification or repair. Routine maintenance, including the replacement of hoses, nozzles, and efficiency compliance devices (e.g., bellows, face shield, splash guard, etc.), does not require an initial vapor recovery system test. *[AQR 12.5.2.8(a)]*

b. The permittee shall conduct and pass subsequent Phase I and Phase II Vapor Recovery System tests on or before the anniversary date of the last performance test at the frequency specified in Table 4-3a. *[AQR 12.5.2.8(a)]*

c. Each vapor recovery system test may be witnessed by a DAQ inspector.

19. The permittee shall submit a "Gasoline Dispensing Operation Certification of Vapor Recovery System Test Results Submittal Form" (available on DAQ's website) to the Control Officer after each vapor recovery system test. The submittal form shall meet the following conditions: *[AQR 12.5.2.8(a)]*

    a. The test results form is only valid if it is complete and signed by the Responsible Official for the equipment being tested. The Responsible Official must certify that the test results are true, accurate, and complete. *[AQR 12.5.2.8(a)]*

    b. Test results can be submitted by mail, by fax, or in person. *[AQR 12.5.2.8(a)]*

    c. The test report can be submitted by the source or by the permittee's testing company or consultant, but the source is the responsible party and must ensure that the test report is delivered to DAQ within the applicable timeline. *[AQR 12.5.2.8(a)]*

20. If the source passes the vapor recovery system test, the permittee shall submit the test results report to the Control Officer within 60 days from the date of the test. *[AQR 12.5.2.6(d)]*

21. If the source fails a vapor recovery system test: *[AQR 12.5.2.8(a)]*

    a. The permittee shall notify the Control Officer, by email or phone, within 24 hours of equipment test failure, make all necessary repairs, and retest the affected facility. After retesting, the permittee shall notify the Control Officer of the retest and submit test results within 15 days of completion. *[AQR 12.5.2.8(a)]*

    b. The permittee shall continue the process of retesting until the affected facility successfully passes all aspects of the vapor recovery system test. *[AQR 12.5.2.8(a)]*

    c. The Control Officer may require the permittee to conduct any test after a failed vapor recovery system test in the presence of a DAQ representative. *[AQR 12.5.2.8(a)]*

Table 4-3a: Performance Testing Procedures and Schedules: Gasoline Dispensing (EU: T01)

Type of Vapor Recovery System	Test Procedure	Frequency
Phase I/II Vapor Balance System	Pressure Decay/Leak test: CARB Procedure TP-201.3 (as revised for UST); or TP201.3A (as revised for AST)	Initial and every three years thereafter
	Leak Rate and Cracking Pressure of Pressure/Vacuum Vent Valves: CARB Procedure TP-201.1E (as revised)	Initial and every three years thereafter
	Dynamic Back Pressure/Liquid Blockage test: CARB Procedure TP-201.4 (as revised)	Initial and every three years thereafter
	Flow Rate Test: CC_VRTP_1	Initial and every three years thereafter

4.3 RECORDKEEPING

1. The permittee shall keep records of all inspections, maintenance, and repairs, as required by this permit. *[AQR 12.5.2.6(d) and AQR 12.5.2.8]*

2. The permittee shall comply with all applicable recordkeeping requirements of 40 CFR Part 60, Subpart Dc; 40 CFR Part 63, Subparts DDDDD and ZZZZ; and any other applicable regulations.

3. The permittee shall maintain all records for a period of at least five years from their creation. All records and logs, or a copy thereof, shall be kept on-site for a minimum of five years from the date the measurement or data was entered, and shall be made available to DAQ upon request. *[AQR 12.5.2.6(d) & AQR 12.5.2.8]*

4. Records and data required by this permit to be maintained by the permittee may be audited at any time by a third party selected by the Control Officer. *[AQR 4.1]*

5. At a minimum, the permittee shall create and maintain the records identified in Conditions 4.3.6 and 4.3.7, all of which must be producible on-site to the Control Officer's authorized representative upon request and without prior notice during the permittee's hours of operation. *[AQR 12.5.2.6(d) and AQR 12.5.2.8]*

6. The permittee shall maintain the following records for reporting: *[AQR 12.5.2.6(d), AQR 12.5.2.8]*

    a. The monthly, consecutive 12-month total hours of operation by the boiler (EU: A07);

    b. The monthly natural gas consumed (in MMBtu, scf, or therms) by the boiler (EU: A05); *[40 CFR Part 60, Subpart Dc]*

    c. The monthly amount of boric oxide and magnesium fed to the furnaces (EU: E004);

    d. The monthly, consecutive 12-month total amount of boron produced (EU: E003);

    e. The monthly amount of boron carbide fed to the reactors (EU: F006);

f. The monthly, consecutive 12-month total amount of boron trichloride produced (EU: F006);

g. The monthly, consecutive 12-month total amount of unreduced MnO_2 ore delivered, piled on the hearths, turned, and harvested (EUs: MN01A-D);

h. The monthly, consecutive 12-month total amount of unreduced MnO_2 entered into the polishing bins (EUs: 9555 and 9556);

i. The delivery receipts of prereduced MnO feed;

j. The monthly, consecutive 12-month total amount of prereduced MnO feed entered into the process (EUs: 9555 and 9556);

k. The monthly, consecutive 12-month total amounts of natural gas consumed (in MMBtu, scf, or therms) by the hearths, as determined by the fuel meter (EUs: MN02 and MN03);

l. The monthly, consecutive 12-month total amount of MnO_2 processed by Unit 6 (EUs: D, C, M and F series);

m. The results of the metal content of samples as specified in the Control Requirements section (from the vendor and from the third-party laboratory);

n. The daily amount of H_2S consumed in the sulfiding operation (EU: MN05);

o. The monthly, consecutive 12-month total amount of EMD produced (EU: MN04);

p. The daily and consecutive 12-month total throughput for each process in the ABM plant (EUs: ABM01–ABM04);

q. The consecutive 12-month total VMT on the paved roads (EU: G01);

r. The monthly combined gasoline product throughput (EU: T01);

s. The records of any upset/breakdown, investigation results, and actions taken to prevent a reoccurrence;

t. Deviations from permit requirements resulting in excess emissions (reported as required by Section 4.4); and

u. Deviations from permit requirements not resulting in excess emissions.

7. The permittee shall maintain the following records:. *[AQR 12.5.2.6(d) & AQR 12.5.2.8]*

a. The results of daily observations for visible emissions. The log shall indicate who performed the observation, the results, and the actions taken to resolve any occurrence of fugitive dust;

b. The dates and duration of operation of emergency generators for testing, maintenance, and nonemergency use (EUs: A01–A04);

c. The dates and duration of operation of emergency generators for emergency use, including documentation justifying use during the emergency (EUs: A01–A04);

d. Sulfur content and cetane index or aromatic content of diesel fuel used to power the emergency generator (EUs: A01 – A04), as certified by the supplier;

e. The daily amount of unreduced MnO_2 ore delivered, piled on the hearths, turned, and harvested (EUs: MN01A-D);

f. The daily amount of unreduced MnO_2 entered into the polishing bins (EUs: 9555 and 9556);

g. The daily amount of prereduced MnO feed entered into the process (EUs: 9555 and 9556);

h. The monthly amounts of natural gas consumed (in MMBtu, scf, or therms) by the hearths, as determined by the fuel meter (EUs: MN02 and MN03);

i. The daily records of the hearth's CO capture and control device operating parameters (EU: MN03), including but not limited to:

    i. The catalyst replacements; and

    ii. The control device operating temperatures;

j. The daily combined total amount of MnO_2 processed by Unit 6 (EUs: D, C, M and F series);

k. The daily amount of EMD produced (EU: MN04);

l. The daily inspection log of the paraffin layer of the EMD cells (EU: MN04);

m. The daily total throughput for each process in the ABM plant (EUs: ABM01–ABM04);

n. The daily amount of chlorine fed to the boron trichloride reactors (EU: F006);

o. Records of loader/forklift operator training;

p. The daily total VMT on the paved roads (EU: G01);

q. The maximum area of disturbed surfaces, initially and contemporaneously with changes (EU: B01);

r. The maximum stockpile area of each emission unit (EUs: MN06A & MN06B), initially and contemporaneously with changes;

s. The monthly TDS content of cooling tower circulation water (EUs: CT03 and CT04);

t. The baghouse media manufacturer's specification sheet for each filter media used to meet the conditions in the control requirement section;

u. The baghouse/scrubber pressure differentials and other monitoring required by Table 4-2;

v. The daily number of EMD cells used (EU: MN04);

w. A record of the energy evaluation for the boilers (EUs: A05 & A07). *[40 CFR Part 63, Subpart DDDDD]*;

x. Records required by 40 CFR Part 63.7555(a)(1, 2) and 40 CFR Part 63.7555(h) (EUs: A05 & A07) as follows: *[40 CFR Part 63, Subpart DDDDD]*

    i. Each notification and report submitted to comply with the aforementioned subparts;

    ii. Performance tests, fuel analyses, or other compliance demonstrations and performance evaluations required by 40 CFR Part 63.10(b)(2)(viii); and

    iii. Total hours per calendar year of alternative fuel(s) burned and the total hours per calendar year of operation during periods of gas curtailments or supply emergencies.

y. A log of the dust control measures applied to paved roads, unpaved roads, parking lots, disturbed open areas, and disturbed vacant areas;

z. A log showing the dates and times when opacity observations were taken and the corrective steps taken to bring opacity into compliance;

aa. A log of control device inspections, maintenance, and repair;

bb. The manufacturer's specification sheets for baghouse bags including guaranteed control efficiency;

cc. Records of the quarterly silt loading tests (EU: G01);

dd. The following records, which shall be kept for gasoline dispensing (EU: T01):

    i. Equipment inspections;

    ii. Maintenance on distribution and control (i.e., Phase I and Phase II) equipment, including a general description of location and parts;

    iii. The date and time that storage and distribution equipment was taken out of service;

    iv. The date of repair or replacement of storage and distribution equipment/parts;

    v. Vapor recovery system testing results (reported as required by Section 4.2-17 of this permit);

    vi. Records of the date and time of each gasoline delivery; and

    vii. Monthly and annual records of gasoline throughput.

ee. The results of burner efficiency tests (EUs: A05 and A07); and

ff. The results of performance tests.

8. The permittee shall include in each record above, where applicable, the date and time the monitoring or measurement was taken, the person performing the monitoring or measurement, and the emission unit or location where the monitoring or measurement was performed. Each record must also contain the action taken to correct any deficiencies, when applicable. *[AQR 12.5.2.6(d) & AQR 12.5.2.8]*

4.4 REPORTING AND NOTIFICATIONS

1. The permittee shall comply with all applicable notification and reporting requirements of 40 CFR Part 60, Subpart Dc, and 40 CFR Part 63, Subparts DDDDD and ZZZZ. *[AQR 12.5.2.6(d) & AQR 12.5.2.8]*

2. The permittee shall notify DAQ of the use of back-up fuels other than Gas 1 Fuels (natural gas or refinery gas) within 48 hours of the declaration of each period of natural gas curtailment or supply interruption. *[40 CFR Part 63.7545(f)]*

3. The permittee shall certify compliance with the terms and conditions contained in this Part 70 OP, including emission limitations, standards, work practices, and the means for monitoring such compliance. *[AQR 12.5.2.8(e)]*

4. The permittee shall submit compliance certifications annually in writing to the Control Officer (4701 W. Russell Road, Suite 200, Las Vegas, NV 89118) and the Region 9 Administrator (Director, Air and Radiation Divisions, 75 Hawthorne St., San Francisco, CA 94105). A compliance certification for each calendar year will be due on January 30 of the following year, and shall include the following: *[AQR 12.5.2.8(e)]*

   a. The identification of each term or condition of the permit that is the basis of the certification;

   b. The identification of the methods or other means used by the permittee for determining the compliance status with each term and condition during the certification period. These methods and means shall include, at a minimum, the monitoring and related recordkeeping and reporting requirements described in 40 CFR Part 70.6(a)(3). If necessary, the permittee shall also identify any other material information that must be included in the certification to comply with Section 113(c)(2) of the Clean Air Act, which prohibits knowingly making a false certification or omitting material information; and

   c. The status of compliance with the terms and conditions of the permit for the period covered by the certification, including whether compliance during the period was continuous or intermittent. The certification shall be based on the methods or means designated in (b) above. The certification shall identify each deviation and take it into account in the compliance certification. The certification shall also identify, as possible exceptions to compliance, any periods during which compliance was required and in which an excursion or exceedance, as defined under 40 CFR Part 64, occurred.

5. The permittee shall report to the Control Officer any startup, shutdown, malfunction, emergency, or deviation that causes emissions of regulated air pollutants in excess of any limits set by regulations or this permit. The report shall be in two parts, as specified below: *[AQR 12.5.2.6(d)(4)(B); AQR 25.6.1]*

    a. Within 24 hours of the time the permittee learns of the excess emissions, the permittee shall notify DAQ by phone at (702) 455-5942, by fax at (702) 383-9994, or by email at airquality@clarkcountynv.gov.

    b. Within 72 hours of the notification required by paragraph (a) above, the permittee shall submit a detailed written report to DAQ containing the information required by AQR 25.6.3.

6. With the semiannual monitoring report, the permittee shall report to the Control Officer all deviations from permit conditions that do not result in excess emissions, including those attributable to malfunction, startup, or shutdown. Reports shall identify the probable cause of each deviation and any corrective actions or preventative measures taken. *[AQR 12.5.2.6(d)(4)(B)]*

7. The owner or operator of any source required to obtain a permit under AQR 12 shall report to the Control Officer emissions in excess of an applicable requirement or emission limit that pose a potential imminent and substantial danger to public health and safety or the environment as soon as possible, but no later than 12 hours after the deviation is discovered, and submit a written report within two days of the occurrence. *[AQR 25.6.2]*

8. The permittee shall submit all compliance certifications to the U.S. Environmental Protection Agency (EPA) and to the Control Officer. *[AQR 12.5.2.8(e)(4)]*

9. Any application form, report, or compliance certification submitted to the Control Officer pursuant to the permit or the AQRs, shall contain a certification by a Responsible Official, with an original signature, of truth, accuracy, and completeness. This certification, and any other required under AQR 12.5, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. *[AQR 12.5.2.6(l)]*

10. The permittee shall furnish to the Control Officer, in writing and within a reasonable time, any information that the Control Officer may request to determine whether cause exists for revising, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Control Officer copies of records that the permit requires keeping. The permittee may furnish records deemed confidential directly to the Administrator, along with a claim of confidentiality. *[AQR 12.5.2.6(g)(5)]*

11. At the Control Officer's request, the permittee shall provide any information or analyses that will disclose the nature, extent, quantity, or degree of air contaminants that are or may be discharged by the source, and the type or nature of control equipment in use. The Control Officer may require such disclosures be certified by a professional engineer registered in the state. In addition to this report, the Control Officer may designate an authorized agent to make an independent study and report on the nature, extent, quantity, or degree of any air

contaminants that are or may be discharged from the source. An agent so designated may examine any article, machine, equipment, or other contrivance necessary to make the inspection and report. *[AQR 4.1]*

12. The permittee shall submit annual emissions inventory reports based on the following: *[AQR 18.6.1 and AQR 12.5.2.4]*

    a. The annual emissions inventory must be submitted to DAQ by March 31 of each calendar year (if March 31 falls on a Saturday or Sunday, or on a Nevada or federal holiday, the submittal shall be due on the next regularly scheduled business day);

    b. The calculated actual annual emissions from each emission unit shall be reported even if there was no activity, along with the total calculated actual annual emissions for the source based on the emissions calculation methodology used to establish the potential to emit (PTE) in the permit or an equivalent method approved by the Control Officer prior to submittal; and

    c. As the first page of text, a signed certification containing the sentence: "I certify that, based on information and belief formed after reasonable inquiry, the statements contained in this document are true, accurate, and complete." This statement shall be signed and dated by a Responsible Official of the company (a sample form is available from DAQ).

13. Stationary sources that emit 25 tons or more of nitrogen oxide (NO_X) and/or emit 25 tons or more of volatile organic compounds (VOC) from their emission units, insignificant activities, and exempt activities during a calendar year shall submit an annual emissions statement for both pollutants. Emissions statements must include actual annual NOX and VOC emissions from all activities, including emission units, insignificant activities and exempt activities. Emissions statements are separate from, and additional to, the calculated annual emissions reported each year for all regulated air pollutants (aka Emissions Inventory). *[AQR 12.9.1]*

14. The permittee shall comply with all applicable notification and reporting requirements of 40 CFR Part 60, Subpart Dc, and 40 CFR Part 63, Subparts DDDDD and ZZZZ. *[AQR 12.5.2.6(d) & AQR 12.5.2.8]*

15. The permittee shall submit semiannual monitoring reports to DAQ. *[AQR 12.5.2.6(d) and AQR 12.5.2.8]*

16. The following requirements apply to semiannual reports: *[AQR 12.5.2.6(d) and AQR 12.5.2.8]*

    a. The report shall include items listed in Section 4.3.6.

    b. The report shall be based on a calendar semiannual period, which includes partial reporting periods.

    c. The report shall be received by DAQ within 30 calendar days after the semiannual period.

17. Regardless of the date of issuance of this OP, the source shall comply with the schedule for report submissions outlined in Table 4-4. *[AQR 12.5.2.6(d) and AQR 12.5.2.8]*

Table 4-4: Required Submission Dates for Various Reports

Required Report	Applicable Period	Due Date
Semiannual report for 1st six-month period	January, February, March, April, May, June	July 30 each year[1]
Semiannual report for 2nd six-month period; any additional annual records required	July, August, September, October, November, December	January 30 each year[1]
Annual Compliance Certification	Calendar year	January 30 each year[1]
Annual Emissions Inventory Report	Calendar year	March 31 each year[1]
Annual Emissions Statement[2]	Calendar year	March 31 each year[1]
Notification of Malfunctions, Startup, Shutdowns, or Deviations with Excess Emission	As required	Within 24 hours of the permittee learns of the event
Excess Emissions that Pose a Potential Imminent and Substantial Danger	As required	Within 12 hours of when permittee learns of event
Report of Malfunctions, Startup, Shutdowns, or Deviations with Excess Emission	As required	Within 72 hours of the notification
Deviation Report without Excess Emissions	As required	Along with semiannual reports[1]
Performance Testing Protocol	As required	No less than 45 days, but no more than 90 days, before the anticipated test date[1]
Performance Testing Results	As required	Within 60 days of end of test[1]

[1]If the due date falls on a federal or Nevada holiday, or on any day the office is not normally open for business, the submittal is due on the next regularly scheduled business day.
[2] Required only for stationary sources that emit 25 tons or more of nitrogen oxide (NO_X) and/or emit 25 tons or more of volatile organic compounds (VOC) during a calendar year.

18. The Control Officer reserves the right to require additional reports and reporting to verify compliance with permit emission limits, applicable permit requirements, and requirements of applicable federal regulations. *[AQR 4.1]*

19. The permittee shall include actual startup and shutdown emissions in the annual emission inventory reporting. *[AQR 12.5.2.6(d) & AQR 12.5.2.8]*

4.5 MITIGATION

The source has no federal offset requirements. *[AQR 12.7]*

5.0 PERMIT SHIELD

Permit Shield

The permittee has not requested a permit shield. *[AQR 12.5.2.9]*

6.0 ACID RAIN REQUIREMENTS

The source is not subject to the acid rain requirements.

7.0 OTHER REQUIREMENTS

1. Any person who violates any provision of the AQRs, including, but not limited to, any application requirement; any permit condition; any fee or filing requirement; any duty to allow or carry out inspection, entry, or monitoring activities; or any requirements from DAQ is guilty of a civil offense and shall pay a civil penalty levied by the Air Pollution Control Hearing Board and/or the Hearing Officer of not more than $10,000. Each day of violation constitutes a separate offense. *[AQR 9.1; NRS 445B.640]*

2. Any person aggrieved by an order issued pursuant to AQR 9.1 is entitled to review, as provided in Chapter 233B of the NRS. *[AQR 9.12]*

3. The permittee shall comply with the requirements of Title 40, Part 61 of the Code of Federal Regulations (40 CFR Part 61), Subpart M—the National Emission Standard for Asbestos—for all demolition and renovation projects. *[AQR 13.1(b)(8)]*

4. The permittee shall not use, sell, or offer for sale any fluid as a substitute material for any motor vehicle, residential, commercial, or industrial air conditioning system, refrigerator freezer unit, or other cooling or heating device designated to use a Class I or Class II ozone-depleting substance or any nonexempt substitute refrigerant as a working fluid, unless such fluid has been approved for sale in such use by the EPA Administrator. The permittee shall keep records of all paperwork relevant to the applicable requirements of 40 CFR Part 82 on-site. *[40 CFR Part 82]*

5. A risk management plan is required for the storing, handling and use of an applicable "Highly Hazardous Chemical" pursuant to 40 CFR Part 68. The permittee shall submit revisions of the risk management plan to the appropriate authority and a copy to DAQ. *[40 CFR Part 68.150(b)(3)]*

8.0 ADMINISTRATIVE REQUIREMENTS

8.1 GENERAL

1. The permittee shall comply with all conditions of the Part 70 OP. Any permit noncompliance may constitute a violation of the Clark County Air Quality Regulations (AQRs), Nevada law, and the Clean Air Act, and is grounds for enforcement action; for permit termination, revocation and reissuance, or revision; or for denial of a renewal application. *[AQR 12.5.2.6(g)(1)]*

2. If any term or condition of this permit becomes invalid as a result of a challenge to a portion of this permit, the other terms and conditions of this permit shall be unaffected and remain valid. *[AQR 12.5.2.6(f)]*

3. The permittee shall pay all permit fees pursuant to AQR 18. *[AQR 12.5.2.6(h)]*

4. This permit does not convey property rights of any sort, or any exclusive privilege. *[AQR 12.5.2.6(g)(4)]*

5. The permittee agrees to allow inspection of the premises to which this permit relates by any authorized representative of the Control Officer at any time during the permittee's hours of operation without prior notice. The permittee shall not obstruct, hamper, or interfere with any such inspection. *[AQR 4.1; AQR 5.1.1; and AQR 12.5.2.8(b)]*

6. The permittee shall allow the Control Officer, upon presentation of credentials, to: *[AQR 4.1 and AQR 12.5.2.8(b)]*

    a. Access and copy any records that must be kept under the conditions of the permit;

    b. Inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit;

    c. Sample or monitor substances or parameters for the purpose of assuring compliance with the permit or applicable requirements; and

    d. Document alleged violations using such devices as cameras or video equipment.

7. Any permittee who fails to submit relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit the needed supplementary facts or corrected information. In addition, the permittee shall provide additional information as necessary to address any requirements that become applicable to the source after the date a complete application was filed but prior to release of a draft permit. A Responsible Official shall certify the additional information consistent with the requirements of AQR 12.5.2.4. *[AQR 12.5.2.2]*

8. Anyone issued a permit under AQR 12.5 shall post it in a location where it is clearly visible and accessible to facility employees and DAQ representatives. *[AQR 12.5.2.6(m)]*

9. The permittee shall not use as a defense in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. *[AQR 12.5.2.6(g)(2)]*

8.2 MODIFICATION, REVISION, AND RENEWAL REQUIREMENTS

1. No person shall begin actual construction of a new Part 70 source, or modify or reconstruct an existing Part 70 source that falls within the preconstruction review applicability criteria, without first obtaining an Authority to Construct (ATC) from the Control Officer. *[AQR 12.4.1.1(a)]*

2. The permit may be revised, revoked, reopened and reissued, or terminated for cause by the Control Officer. The filing of a request by the permittee for a permit revision, revocation, reissuance, or termination, or of a notification of planned changes or anticipated noncompliance, does not stay any permit condition. *[AQR 12.5.2.6(g)(3)]*

3. The permit shall be reopened under any of the following circumstances and when all applicable requirements pursuant to AQR 12.5.2.15 are met: *[AQR 12.5.2.15(a)]*

    a. New applicable requirements become applicable to a stationary source considered "major" (per the definition in AQR 12.2, AQR 12.3, or 40 CFR Part 70.3(a)(1)) with a remaining permit term of three or more years;

    b. Additional requirements (including excess emissions requirements) become applicable to an affected source under the Acid Rain Program;

    c. The Control Officer or U.S. Environmental Protection Agency (EPA) determines that the permit contains a material mistake, or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit; or

    d. The EPA Administrator or the Control Officer determines that the permit must be revised or revoked to assure compliance with applicable requirements.

4. A permit, permit revision, or renewal may be approved only if all of the following conditions have been met: *[AQR 12.5.2.10(a)]*

    a. The permittee has submitted to the Control Officer a complete application for a permit, permit revision, or permit renewal (except a complete application need not be received before a Part 70 general permit is issued pursuant to AQR 12.5.2.20); and

    b. The conditions of the permit provide for compliance with all applicable requirements and the requirements of AQR 12.5.

5. The permittee shall not build, erect, install, or use any article, machine, equipment, or other contrivance, the use of which, without resulting in a reduction in the total release of air contaminants to the atmosphere, reduces or conceals an emission that would otherwise constitute a violation of an applicable requirement. *[AQR 80.1 and 40 CFR Part 60.12]*

6. No permit revisions shall be required under any approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in the permit. *[AQR 12.5.2.6(i)]*

7. Permit expiration terminates the permittee's right to operate unless a timely and complete renewal application has been submitted. *[AQR 12.5.2.11(b)]*

8. For purposes of permit renewal, a timely application is a complete application that is submitted at least six months, but not more than 18 months, prior to the date of permit expiration. If a source submits a timely application under this provision, it may continue operating under its current Part 70 OP until final action is taken on its application for a renewed Part 70 OP. *[AQR 12.5.2.1(a)(2)]*

9.0 ATTACHMENTS

9.1 APPLICABLE REGULATIONS

Requirements Specifically Identified as Applicable

1. NRS, Chapter 445B.

2. Applicable AQR sections, as listed below.

Citation	Title
AQR 0	*Definitions*
AQR 4	*Control Officer*
AQR 5	*Interference with Control Officer*
AQR 8	*Persons Liable for Penalties – Punishment: Defense*
AQR 9	*Civil Penalties*
AQR 10	*Compliance Schedule*
AQR 12.4	*ATC Application and Permit Requirements for Part 70 Sources*
AQR 12.5	*Part 70 OP Requirements*
AQR 13.2(b)(82)	*NESHAP – Stationary Reciprocating Internal Combustion Engines*
AQR 13.2(b)(86)	*NESHAP – Industrial, Commercial, and Institutional Boilers and Process Heaters*
AQR 14.1(b)(5)	*NSPS – Small Industrial – Commercial – Institutional Steam Generating Units*
AQR 18	*Permit and Technical Service Fees*
AQR 25	*Upset/Breakdown, Malfunctions*
AQR 26	*Emissions of Visible Air Contaminants*
AQR 28	*Fuel Burning Equipment*
AQR 33	*Chlorine in Chemical Processes*
AQR 40	*Prohibition of Nuisance Conditions*
AQR 41	*Fugitive Dust*
AQR 42	*Open Burning*
AQR 43	*Odors in the Ambient Air*
AQR 70	*Emergency Procedures*
AQR 80	*Circumvention*

3. CAAA, Authority: 42 U.S.C. § 7401, et seq.

4. Applicable 40 CFR sections, as listed below.

Citation	Title
40 CFR Part 52.21	*Prevention of significant deterioration of air quality*
40 CFR Part 52.1470	*Identification of [State Implementation] plan*

Citation	Title
40 CFR Part 60, Subpart A	*Standards of Performance for New Stationary Sources - General Provisions*
40 CFR Part 60, Subpart Dc	*Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units*
40 CFR Part 60, Appendix A	*Standards of Performance for New Stationary Sources, Appendix A-4 to Part 60 - Test Methods 6 through 10B*
40 CFR Part 63, Subpart ZZZZ	*National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*
40 CFR Part 63, Subpart DDDDD	*National Emission Standard for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters*
40 CFR Part 70	*State Operating Permit Programs*
40 CFR Part 82	*Protection of Stratospheric Ozone*