



**TECHNICAL SUPPORT DOCUMENT**

**Air Discharge Permit 24-3667  
Air Discharge Permit Application CL-3280**

**Issued: October 28, 2024**

**Heidelberg Materials - Crusher**

**SWCAA ID – 1236**

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## ABBREVIATIONS

### *List of Acronyms*

ADP .....	Air Discharge Permit	NSPS .....	New Source Performance Standard
AP-42 .....	Compilation of Emission Factors, AP-42, 5th Edition, Volume 1, Stationary Point and Area Sources – published by EPA	PSD .....	Prevention of Significant Deterioration
BACT .....	Best available control technology	RACT .....	Reasonably Available Control Technology
BART .....	Best Available Retrofit Technology	RCW .....	Revised Code of Washington
CAM .....	Compliance Assurance Monitoring	SQER .....	Small Quantity Emission Rate listed in WAC 173-460
CFR .....	Code of Federal Regulations	Standard .....	Standard conditions at a temperature of 68°F (20°C) and a pressure of 29.92 in Hg (760 mm Hg)
EPA .....	U.S. Environmental Protection Agency	SWCAA .....	Southwest Clean Air Agency
MACTLAER	Lowest achievable emission rate	T-BACT .....	Best Available Control Technology for toxic air pollutants
MACT .....	Maximum Achievable Control Technologies	WAC .....	Washington Administrative Code
NESHAP .....	National Emission Standards for Hazardous Air Pollutants		

### *List of Units and Measures*

µm .....	Micrometer (10 <sup>-6</sup> meter)	MMcf .....	Million cubic feet
bhp .....	Brake horsepower	ppm .....	Parts per million
dscfm .....	Dry Standard cubic foot per minute	ppmv .....	Parts per million by volume
hp .....	Horsepower	ppmvd .....	Parts per million by volume, dry
kW .....	Kilowatt	ppmw .....	Parts per million by weight
MMBtu .....	Million British thermal unit	psig .....	Pounds per square inch, gauge
		tpy .....	Tons per year

*List of Chemical Symbols, Formulas, and Pollutants*

CO.....	Carbon monoxide	PM .....	Particulate Matter with an aerodynamic diameter 100 µm or less
CO <sub>2</sub> .....	Carbon dioxide		
CO <sub>2</sub> e.....	Carbon dioxide equivalent	PM <sub>10</sub> .....	PM with an aerodynamic diameter 10 µm or less
H <sub>2</sub> S .....	Hydrogen sulfide	PM <sub>2.5</sub> .....	PM with an aerodynamic diameter 2.5 µm or less
HAP .....	Hazardous air pollutant listed pursuant to Section 112 of the Federal Clean Air Act	SO <sub>2</sub> .....	Sulfur dioxide
Hg.....	Mercury	SO <sub>x</sub> .....	Sulfur oxides
NO <sub>x</sub> .....	Nitrogen oxides	TAP.....	Toxic air pollutant pursuant to Chapter 173-460 WAC
O <sub>2</sub> .....	Oxygen	VOC.....	Volatile organic compound

Terms not otherwise defined have the meaning assigned to them in the referenced regulations or the dictionary definition, as appropriate.

## 1. FACILITY IDENTIFICATION

Applicant Name: Heidelberg Materials  
Applicant Address: 26110 NE Lewisville Hwy, Battleground WA, 98604

Facility Name: Heidelberg Materials  
Facility Address: 26110 NE Lewisville Hwy, Battleground WA, 98604

SWCAA Identification: 1236

Contact Person: Courtney Deporto

Primary Process: Aggregate Crushing  
SIC/NAICS Code: 1429: Quarrying of non-metallic minerals  
212319: Other crushed and broken stone mining and quarrying

Facility Latitude and Longitude: 45°48'35.98"N  
122°33'40.73"W

Facility Classification: Natural Minor

## 2. FACILITY DESCRIPTION

Heidelberg Materials intends to operate a portable track-mounted rock crushing unit. The unit may be used to crush rock or construction debris. The unit consists of a rock crusher driven by a diesel-fired nonroad engine.

## 3. CURRENT PERMITTING ACTION

This permitting action is in response to Air Discharge Permit / Nonroad Engine Permit (ADP/NEP) application number CL-3280 dated October 9, 2024. Heidelberg Materials submitted ADP/NEP application CL-3280 requesting the following:

- Approval to operate a portable track-mounted Metso Lokotrack model LT106 jaw crusher powered by a Caterpillar C7.1 diesel engine at multiple locations. Heidelberg Materials plans to rent the equipment for one month.

## 4. PROCESS DESCRIPTION

Rock, construction debris, recycled asphalt, or concrete will be fed to the crushing unit via front end loader or backhoe. Material will be crushed and stacked by the crushing unit and associated conveyors. High pressure water spray will be used to control fugitive dust at the infeed of the crusher and at the screen. Wet suppression will be utilized as necessary to control fugitive dust at conveyor transfer points and other sources of fugitive dust.

## 5. EQUIPMENT/ACTIVITY IDENTIFICATION

- 5.a. Crusher Engine. This engine drives the Jaw Crusher, including the tracks on which it is mounted. Because the engine drives the tracks, the engine is classified as a nonroad engine.

Engine Make: Caterpillar  
 Engine Model: C7.1  
 Engine Serial Number: 6J604231  
 Engine Output Rating: 295 bhp  
 Manufacture Date: 2022  
 Certification: EPA Tier 4  
 Fuel Consumption: Diesel, 10.8 gal/hr at full standby load  
 Exhaust Flow Rate: 150 dscfm @ 3% O<sub>2</sub>  
 Stack Location: Mobile. Initial Location ~ 45°48'42.64"N 122°33'21.22"W  
 Stack Height: 10' from ground  
 Stack Diameter: 3"  
 Stack Temperature: 840°F  
 Regulations of Note: None. Nonroad engine subject to 40 CFR 1039

- 5.b. Jaw Crusher. This unit is a track-mounted jaw crusher driven by a Caterpillar C7.1 engine. A 3' 7" x 9' 10" 1-deck screen is included on the unit. The following information was available:

Make / Model: Metso Lokotrack / LT106  
 Serial Number: 182245  
 Size / Capacity: 450 tons per hour  
 Manufactured: 2022  
 NSPS/NESHAP/MACT: 40 CFR 60 Subpart OOO

- 5.c. Haul Roads. Dump trucks and other equipment may be utilized to transport materials between various locations within the work site.

- 5.d. Equipment/Activity Summary.

ID No.	Equipment/Activity	Control Equipment/Measure
1	Caterpillar Engine, C7.1 (s/n 6J604231)	Ultra-low-sulfur Diesel
2	Metso Jaw Crusher, Lokotrack LT106, (s/n 182245)	High pressure wet suppression at crusher entrance and screen. Wet suppression at drop points as necessary
3	Haul Roads	Wet suppression as necessary

## 6. EMISSIONS DETERMINATION

Unless otherwise specified by SWCAA, actual emissions must be determined using the specified input parameter listed for each emission unit and the following hierarchy of methodologies:

- (a) Continuous emissions monitoring system (CEMS) data;
- (b) Source emissions test data (EPA reference method). When source emissions test data conflicts with CEMS data for the time period of a source test, source test data must be used;
- (c) Source emissions test data (other test method); and
- (d) Emission factors or methodology provided in this Technical Support Document (TSD).

Nothing precludes the use, including the exclusive use of any credible evidence or information relevant to identifying or quantifying emissions if methods identified above, in the ADP/NEP, or elsewhere in this TSD have not provided adequate quantification of actual emissions.

- 6.a. Crushing and Screening Operations. Potential emissions from crushing, screening, and material transfer are calculated from aggregate throughput and emission factors from EPA AP-42, Table 11.19.2-2 (8/04). Emission factors for all stages except primary crushing are "controlled" factors from the 8/04 version of the table. Emission factors for primary crushing are taken from the 1/95 version of the table which only provided an "uncontrolled" PM factor for primary crushing. An uncontrolled factor for PM<sub>10</sub> was calculated using the 2.1:1 ratio of PM to PM<sub>10</sub> specified in the table footnotes. An uncontrolled factor for PM<sub>2.5</sub> was calculated using a PM to PM<sub>2.5</sub> ratio of 12:1 which is based on the tested PM to PM<sub>2.5</sub> ratio for tertiary crushing in the 8/04 version of the table. A control efficiency of 80% was applied to the primary crushing factors to account for the use of wet suppression. The blasting emission factors come from AP-42, Table 11.9.1 assuming a blast area of 17,000 square feet, a blast depth of 20 feet, and a material density of 3,240 pounds per cubic yard.

Activity	Throughput (tpy)	Pollutant	Emission Factor - Controlled (lb/ton)	Transfer Points	Emissions (lbs)
Primary crushing (3" - 12")	200,000	PM	0.00014		28
		PM <sub>10</sub>	0.000067		13
		PM <sub>2.5</sub>	0.000012		2
Secondary crushing (1" - 4")	200,000	PM	0.0012		240
		PM <sub>10</sub>	0.00054		108
		PM <sub>2.5</sub>	0.0001		20
Tertiary crushing (3/16" - 1")	200,000	PM	0.0012		240
		PM <sub>10</sub>	0.00054		108
		PM <sub>2.5</sub>	0.0001		20
Screening	200,000	PM	0.0022		440
		PM <sub>10</sub>	0.00074		148
		PM <sub>2.5</sub>	0.00005		10
Loading/conveying	200,000	PM	0.00014	6	168
		PM <sub>10</sub>	0.000046		55
		PM <sub>2.5</sub>	0.000013		16
Blasting	0	PM	0.0015		0
		PM <sub>10</sub>	0.00079		0
		PM <sub>2.5</sub>	0.000046		0



- 6.b. Crusher Engine. Potential annual emissions from the combustion of ultra-low-sulfur diesel (<0.0015% sulfur by weight) were calculated with the assumption that the equipment will operate at full load for up to 1,000 hours per year.

<b>2022 Caterpillar C7.1 Engine</b>						
Hours of Operation =	1,000 hours					
Power Output =	295 horsepower					
Diesel Density =	7.206 pounds per gallon					
Fuel Sulfur Content =	0.0015 % by weight					
Fuel Consumption Rate =	10.80 gallons per hour					
Fuel Heat Content =	0.138 MMBtu/gal (for use with GHG factors from 40 CFR 98)					
Annual Fuel Consumption =	10,800 gallons					
	Emission Factor	Emission Factor	Emissions	Emission Factor		
Pollutant	g/kW-hr	lb/hr	tpy	Source		
NO <sub>x</sub>	0.14	0.07	0.03	EPA Certification Data		
CO	0.10	0.05	0.02	EPA Certification Data		
VOC	0.01	0.005	0.002	EPA Certification Data		
SO <sub>x</sub> as SO <sub>2</sub>	0.000008	0.0023	0.0012	Mass Balance		
PM/PM <sub>10</sub> /PM <sub>2.5</sub>	0.01	0.005	0.0024	EPA Certification Data		
	6.99E+02	339.006				
			CO <sub>2</sub> e	CO <sub>2</sub> e	Emission Factor	
Greenhouse Gases	kg/MMBtu	GWP	lb/MMBtu	lb/gallon	tpy, CO <sub>2</sub> e	Source
CO <sub>2</sub>	73.96	1	163.05	23	122	40 CFR 98
CH <sub>4</sub>	0.003	25	0.165	0.023	0.12	40 CFR 98
N <sub>2</sub> O	0.0006	298	0.394	0.054	0.29	40 CFR 98
Total GHG - CO <sub>2</sub> e			163.613	23	122	

- 6.c. Haul Roads. Emissions from haul roads were calculated using default emission calculations from EPA AP-42, Section 13.2.2 (12/03), an average load weight of 20 tons, an average silt content of 4.8%, and an average round trip distance of 0.5 miles. This does not include in-pit activities by nonroad equipment. The use of wet suppression is expected to provide an overall control efficiency of 80% for haul road emissions. not include in-pit activities by nonroad equipment. The use of wet suppression is expected to provide an overall control efficiency of 80% for haul road emissions.

$$E = k \left( \frac{s}{12} \right)^a \left( \frac{w}{3} \right)^b$$

Where: w = average truck weight in tons;  
s = road surface silt content (%); and

The constants k, a, and b are given in the table below:

<b>Constant</b>	<b>PM<sub>2.5</sub></b>	<b>PM<sub>10</sub></b>	<b>PM<sub>30</sub> (assumed to represent PM)</b>
k (lb/vehicle mile traveled)	0.15	1.5	4.9
a	0.9	0.9	0.7
b	0.45	0.45	0.45

Maximum haul road emissions are estimated in the table below.

<b>Haul Road Emissions</b>					
Average Truck Weight =	27 tons (assumes empty weight of 17 tons)				
Average Round Trip Distance =	0.50 miles				
Amount of Aggregate per Load =	20.0 tons				
Total # of Trips =	15,000 loads				
Total Miles Traveled =	7,500 miles				
Assumed Silt Content =	4.8%				
Assumed Control (wet suppression) =	80%				
	Uncontrolled	Controlled			
	Emission	Emission			
	Factor	Factor	Emissions	Emission	
Pollutant	lb/mile	lb/mile	tpy	Source	
PM	6.94	1.39	5.20	AP-42 13.2.2 (11/06)	
PM <sub>10</sub>	1.77	0.35	1.33	AP-42 13.2.2 (11/06)	
PM <sub>2.5</sub>	0.18	0.035	0.13	AP-42 13.2.2 (11/06)	

6.d. Emissions Summary

<b>Air Pollutant</b>	<b>Potential to Emit (tpy)</b>	<b>Project Impact (tpy)</b>
NO <sub>x</sub>	0.03	0.03
CO	0.02	0.02
VOC	0.002	0.002
SO <sub>2</sub>	0.0012	0.0012
PM	5.76	5.76
PM <sub>10</sub>	1.54	1.54
PM <sub>2.5</sub>	0.17	0.17
TAP	0	0
HAP	0	0
CO <sub>2</sub> /CO <sub>2e</sub>	121.9	121.9

## 7. REGULATIONS AND EMISSION STANDARDS

Regulations have been established for the control of emissions of air pollutants to the ambient air. Regulations applicable to the proposed facility that have been used to evaluate the acceptability of the proposed facility and establish emission limits and control requirements include, but are not limited to, the following regulations, codes, or requirements. These items establish maximum emissions limits that could be allowed and are not to be exceeded for new or existing facilities. More stringent limits are established in this Permit consistent with implementation of Best Available Control Technology (BACT):

- 7.a. Title 40 Code of Federal Regulations (40 CFR) Part 60.670 et seq. (Subpart OOO) "Standards of Performance for Nonmetallic Mineral Processing Plants" establishes opacity and particulate matter emission limits for stationary (fixed) plants with capacities greater than 25 tons per hour and portable plants greater than 150 tons per hour that were constructed, reconstructed or modified after August 31, 1983. This regulation is applicable to the Metso Lokotrack LT106 because it was constructed around 2022. This regulation is applicable to accessory equipment (e.g., screens or conveyors) whenever they are operated in conjunction with an affected crushing unit.
- 7.b. 40 CFR Part 1039 includes requirements for all nonroad engines. In accordance with Appendix A to Subpart A of Part 1074, states are precluded from requiring retrofitting of nonroad engines except that states are permitted to adopt and enforce any such retrofitting requirements identical to California requirements which have been authorized by EPA under section 209 of the Clean Air Act. States may enforce regulations such as hours of usage, daily mass emission limits, and sulfur limits on fuel.

The definition of nonroad engines in 40 CFR 1068 includes any internal combustion engine in (1)(i) "It is (or will be) used in or on a piece of equipment that is self-propelled or serves a dual purpose by both propelling itself and performing another function (such as garden tractors, off-highway mobile cranes and bulldozers)." The jaw crusher engine is a nonroad engine because the engine drives the tracks on the unit, making it self-propelled.

- 7.c. 40 CFR 60 Subpart IIII (60.4200 et seq.) "Standards of Performance for Stationary Compression Ignition Internal Combustion Engines" applies to each compression ignition (CI) internal combustion engine (ICE) that commences construction after July 11, 2005, and is manufactured after April 1, 2006, or that is modified or reconstructed after July 11, 2005. The diesel engine powering the new rock crushing equipment are not subject to this regulation because it is a nonroad engine.
- 7.d. Revised Code of Washington (RCW) 70A.15.2040 empowers any activated air pollution control authority to prepare and develop a comprehensive plan or plans for the prevention, abatement and control of air pollution within its jurisdiction. An air pollution control authority may issue such orders as may be necessary to effectuate the purposes of the Washington Clean Air Act (RCW 70A.15) and enforce the same by all appropriate administrative and judicial proceedings subject to the rights of appeal as provided in Chapter 62, Laws of 1970 ex. sess. This law applies to the facility.

- 7.e. RCW 70A.15.2210 provides for the inclusion of conditions of operation as are reasonably necessary to assure the maintenance of compliance with the applicable ordinances, resolutions, rules and regulations when issuing an ADP/NEP for installation and establishment of an air contaminant source. This law applies to the facility.
- 7.f. Washington Administrative Code (WAC) 173-460 "Controls for New Sources of Toxic Air Pollutants" requires BACT for toxic air pollutants (T-BACT), identification and quantification of emissions of toxic air pollutants and demonstration of protection of human health and safety.

The only source of TAPs at this facility is the nonroad engine, however nonroad engines are not subject to WAC 173-460.

- 7.g. WAC 173-476 "Ambient Air Quality Standards" establishes ambient air quality standards for PM<sub>10</sub>, PM<sub>2.5</sub>, lead, SO<sub>2</sub>, NO<sub>x</sub>, ozone, and CO in the ambient air, which must not be exceeded. The facility emits PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>x</sub>, NO<sub>x</sub>, and CO; therefore, certain sections of this regulation apply. The facility does not emit lead; therefore, the lead regulation section does not apply.
- 7.h. SWCAA 400-040 "General Standards for Maximum Emissions" requires all new and existing sources and emission units to meet certain performance standards with respect to Reasonably Available Control Technology (RACT), visible emissions, fallout, fugitive emissions, odors, emissions detrimental to persons or property, SO<sub>2</sub>, concealment and masking, and fugitive dust. This regulation applies to the facility.
- 7.i. SWCAA 400-040(1) "Visible Emissions" requires that emissions of an air contaminant from any emissions unit must not exceed twenty percent opacity for more than three minutes in any one hour at the emission point, or within a reasonable distance of the emission point. This regulation applies to the facility.
- 7.j. SWCAA 400-040(2) "Fallout" requires that no emission of particulate matter from any source shall be deposited beyond the property under direct control of the owner(s) or operator(s) of the source in sufficient quantity to interfere unreasonably with the use and enjoyment of the property upon which the material is deposited.
- 7.k. SWCAA 400-040(3) "Fugitive Emissions" requires that reasonable precautions be taken to prevent the fugitive release of air contaminants to the atmosphere. This regulation applies to the facility.
- 7.l. SWCAA 400-040(4) "Odors" requires any source which generates odors that may unreasonably interfere with any other property owner's use and enjoyment of their property to use recognized good practice and procedures to reduce these odors to a reasonable minimum. This regulation applies to this facility.
- 7.m. SWCAA 400-040(5) "Emissions Detrimental to Persons or Property" prohibits the emission of any air contaminant from any "source" if it is detrimental to the health, safety,

or welfare of any person, or causes damage to property or business. This regulation applies to this facility.

- 7.n. SWCAA 400-040(6) "Sulfur Dioxide" requires that no person shall emit a gas containing in excess of 1,000 ppm of sulfur dioxide on a dry basis, corrected to 7% O<sub>2</sub> or 12% CO<sub>2</sub> as required by the applicable emission standard for combustion sources.
- 7.o. SWCAA 400-046 "Application Review Process for Nonroad Engines" requires that a nonroad engine permit be issued by the agency prior to the installation, replacement or alteration of any nonroad engine subject to the requirements of SWCAA 400-045. Each application must demonstrate that the installation will not cause an exceedance of any national or state ambient air quality standard. The nonroad engine in this case is by itself less than the 500 horsepower applicability threshold, but may be operated with other nonroad engines owned by the applicant. The decision to assign a separate registration number to this facility was administrative and does not indicate that the total capacity of all nonroad engines operated by the applicant is less than 500 horsepower.
- 7.p. SWCAA 400-060 "Emission Standards for General Process Units" prohibits particulate matter emissions from all new and existing process units in excess of 0.1 grains per dry standard cubic foot of exhaust gas.
- 7.q. SWCAA 400-109 "Air Discharge Permit Applications" requires that an ADP/NEP application be submitted for all new installations, modifications, changes, or alterations to process and emission control equipment consistent with the definition of "new source". Sources wishing to modify existing permit terms may submit an ADP/NEP application to request such changes. An ADP/NEP must be issued, or written confirmation of exempt status must be received, before beginning any actual construction, or implementing any other modification, change, or alteration of existing equipment, processes, or permits. This regulation applies to the facility.
- 7.r. SWCAA 400-110 "New Source Review" requires that SWCAA issue an ADP/NEP in response to an ADP/NEP application prior to establishment of the new source, emission unit, or modification. The new units meet the definition of a new source; therefore, this regulation applies to the facility.
- 7.s. SWCAA 400-111 "Requirements for Sources in a Maintenance Plan Area" requires that no approval to construct or alter an air contaminant source will be granted unless it is evidenced that:
- (1) The equipment or technology is designed and will be installed to operate without causing a violation of the applicable emission standards;
  - (2) Emissions will be minimized to the extent that the new source will not exceed emission levels or other requirements provided in the maintenance plan;
  - (3) BACT will be employed for all air contaminants to be emitted by the proposed equipment;

- (4) The proposed equipment will not cause any ambient air quality standard to be exceeded; and
- (5) If the proposed equipment or facility will emit any toxic air pollutant regulated under WAC 173-460, the proposed equipment and control measures will meet all the requirements of that Chapter.

The facility may be located in a maintenance plan area; therefore, this regulation applies to the facility.

## 8. RACT/BACT/BART/LAER/PSD/CAM DETERMINATIONS

The proposed equipment and control systems incorporate BACT for the types and amounts of air contaminants emitted by the processes as described below:

### *New BACT Determination(s)*

- 8.a. BACT Determination – Jaw Crusher and Associated Conveyors and Screen The use of high-pressure wet suppression systems, including spray or fog nozzles operating at a minimum pressure of 80 psig and a visual emission limit of 0% opacity, has been determined to meet the requirements of BACT for the proposed crushing and screening equipment. Because there are other wet suppression systems (e.g., sonic fogging systems) that utilize a lower water pressure but provide equivalent or superior levels of emission control, the permit will allow for wet suppression systems reviewed and approved by SWCAA that provide equivalent or superior control of particulate matter emissions. Wet suppression as necessary to maintain visual emissions at 0% opacity as measured by SWCAA Method 9 meets the requirements of BACT for the conveyors and transfer points.
- 8.b. BACT Determination – Fugitive Dust Emissions. The use of low-pressure wet suppression systems has been determined to meet the requirements of BACT for fugitive dust emissions from storage piles, material transfer points, and haul roads at this facility. For sources other than roadways, these controls must maintain visual emissions at 0% opacity as measured by SWCAA Method 9. For haul roads, these controls must maintain visual emissions at or below 10% opacity as measured by SWCAA Method 9.
- 8.c. Nonroad Engine Tier Certification. The nonroad engine affected by this permitting action complies with applicable EPA certification requirements but is not subject to BACT.

### *Other Determinations*

- 8.d. Prevention of Significant Deterioration (PSD) Applicability Determination. This permitting action will not result in a potential increase in emissions equal to or greater than the PSD thresholds. Therefore, PSD review is not applicable to this action.
- 8.e. Compliance Assurance Monitoring (CAM) Applicability Determination. CAM is not applicable to any emission unit at this facility because it is not a major source and is not required to obtain a Part 70 (Title V) permit.

## 9. AMBIENT IMPACT ANALYSIS

- 9.a. Criteria Air Pollutant Review. Emissions of NO<sub>x</sub>, CO, PM<sub>10</sub>, PM<sub>2.5</sub>, VOC (as a precursor to O<sub>3</sub>), and SO<sub>2</sub> are emitted at levels where no adverse ambient air quality impact is anticipated.
- 9.b. Toxic Air Pollutant Review. Nonroad engines are not subject to the toxic air pollutant review requirements of WAC 173-460. Fugitive dust is the only other source of emissions at this facility. No toxic air pollutant emissions, including hexavalent chromium compounds in cement dust (in the event cement is crushed), are expected in the fugitive dust at a rate that would exceed their respective Small Quantity Emission Rate (SQER); therefore, toxic impacts are presumed to be below regulatory significance.

### Conclusions

- 9.c. The crushing activities proposed in ADP/NEP application CL-3280 will not cause the ambient air quality requirements of 40 CFR 50 "National Primary and Secondary Ambient Air Quality Standards" to be violated.
- 9.d. The crushing activities proposed in ADP/NEP application CL-3280 will not cause the requirements of WAC 173-460 "Controls for New Sources of Toxic Air Pollutants" or WAC 173-476 "Ambient Air Quality Standards" to be violated.
- 9.e. The crushing activities proposed in ADP/NEP application CL-3280 will not cause a violation of emission standards for sources as established under SWCAA General Regulations Sections 400-040 "General Standards for Maximum Emissions," 400-050 "Emission Standards for Combustion and Incineration Units," and 400-060 "Emission Standards for General Process Units."

## 10. DISCUSSION OF APPROVAL CONDITIONS

SWCAA has made a determination to issue ADP/NEP 24-3667 in response to ADP/NEP application CL-3280. ADP/NEP 24-3667 contains approval requirements deemed necessary to assure compliance with applicable regulations and emission standards as discussed below.

- 10.a. Emission Limits. Annual emission limitations for the equipment addressed in this permitting action were established equal to the potential to emit identified in Section 6. The potential to emit was based on a process throughput of 200,000 tons per year. Based on the information provided in the application, emission limits based on this throughput will not constrain operations. As discussed in Section 8, these emission limits meet the requirements of BACT. The nonroad engine that drives the crusher is not subject to BACT or other emission limitations due to its status as a nonroad engine.

Visible emissions from the nonroad engine were limited to 5% opacity. Visible emissions should not exceed this level if the engine is operating properly. For the nonroad engines, SWCAA uses this as a surrogate indicator that the engine is in good repair (rather than a tailpipe emission standard otherwise precluded by 40 CFR 1074). For the nonroad engine, this restriction is appropriate because if the engine is not maintained in good repair,

emissions are likely to greatly exceed the expected emission level and could cause an exceedance of a state or federal ambient air quality standard.

- 10.b. Operational Limits and Requirements. Most of the requirements in this section are related to the use of wet suppression systems for the control of fugitive dust.

The permit allows the use of "#2 diesel or better" by the crusher engine. In this case, "or better" includes road-grade diesel fuel with a lower sulfur content, biodiesel, and mixtures of biodiesel and road-grade diesel that meet the definition of "diesel" and contain no more than 0.0015% sulfur by weight.

Operation of the nonroad engine will not result in a violation of the ambient air quality standards when operated in accordance with the permit, therefore no additional operating limits (e.g., location or hours restrictions) were established for the nonroad engine.

- 10.c. Monitoring and Recordkeeping Requirements. Sufficient monitoring and recordkeeping were established to document compliance with the annual emission limits and provide for general requirements (e.g., excess emission reporting, annual emission inventory submission).
- 10.d. Emission Monitoring and Testing Requirements. See Section 12.
- 10.e. Reporting Requirements. The permit requires reporting of the annual air emissions inventory and reporting of the data necessary to develop the inventory. Excess emissions must be reported immediately in order to qualify for relief from monetary penalty in accordance with SWCAA 400-107. In addition, prompt reporting was required because it allows for accurate investigation into the cause of the event and prevention of similar future incidents.

## **11. START-UP AND SHUTDOWN/ALTERNATIVE OPERATING SCENARIOS/POLLUTION PREVENTION**

- 11.a. Start-up and Shutdown Provisions. Pursuant to SWCAA 400-081 "Start-up and Shutdown," technology-based emission standards and control technology determinations must take into consideration the physical and operational ability of a source to comply with the applicable standards during start-up or shutdown. Where it is determined that a source is not capable of achieving continuous compliance with an emission standard during start-up or shutdown, SWCAA will include appropriate emission limitations, operating parameters, or other criteria to regulate performance of the source during start-up or shutdown.

To SWCAA's knowledge, this facility can comply with all applicable standards during startup and shutdown.



Crusher Engine. The opacity of visual emissions from the engine may be higher than normal during start-up. Accordingly, the opacity limit for the engine is not applicable during the start-up period defined in the permit.

- 11.b. Alternate Operating Scenarios. SWCAA conducted a review of alternate operating scenarios applicable to equipment affected by this permitting action. Neither SWCAA nor the permittee identified or proposed any applicable alternate operating scenarios. Therefore, none were included in the approval conditions.
- 11.c. Pollution Prevention Measures. SWCAA conducted a review of possible pollution prevention measures for the facility. No pollution prevention measures were identified by either the permittee or SWCAA separate or in addition to those measures required under BACT considerations. Therefore, none were included in the approval conditions.

## **12. EMISSION MONITORING AND TESTING**

- 12.a. Emission Testing Requirements – Rock Crushing Equipment. Affected rock crushers and associated screening equipment and belt conveyors are required to perform one-time opacity observations as required by 40 CFR 60 Subpart OOO. All the crushing and screening equipment addressed by this permitting action is subject to the initial testing requirements of 40 CFR 60 Subpart OOO.

## **13. FACILITY HISTORY**

- 13.a. General History. This is the initial permitting action for the track-mounted Metso Lokotrack model LT106 jaw crusher powered by a Caterpillar C7.1 diesel engine. Heidelberg Materials is renting this unit for a period of 3 months. The facility has additional equipment on site that is permitted by SWCAA.

## **14. PUBLIC INVOLVEMENT OPPORTUNITY**

- 14.a. Public Notice for ADP/NEP Application CL-3280. Public notice for ADP/NEP application CL-3280 was published on the SWCAA website for a minimum of fifteen (15) days beginning on October 9, 2024.
- 14.b. Public/Applicant Comment for ADP/NEP Application CL-3280. SWCAA did not receive specific comments, a comment period request, or any other inquiry from the public or the applicant regarding ADP/NEP application CL-3280. Therefore, no public comment period was provided for this permitting action.
- 14.c. State Environmental Policy Act. After review of the SEPA Checklist for this project, SWCAA has determined that the project does not have a probable significant impact on the environment and has issued Determination of Non-Significance 24-039. An Environmental Impact Statement is not required under RCW 43.21C.030(2)(c).