

Southwest Clean Air Agency

11815 NE 99th Street, Suite 1294 Vancouver, WA 98682-2322 Voice: (360) 574-3058 Fax: (360) 576-0925

Authority Use Only

date stamp

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ADP #: _____

Date Fee Paid: _____

SWCAA ID #: _____

AIR DISCHARGE PERMIT ATTACHMENT

MOBILE AND STATIONARY SAND & GRAVEL AND CRUSHED STONE PLANTS PARTICULATE EMISSION AND REVIEW FEE WORKSHEET

Application Fee \$500 + Review Fee _____ = \$ _____ (to be submitted with application)¹

Business Name: _____ **Phone:** _____ **Date:** _____

Business Address: _____

Street City County State Zip

Equipment Address: _____

Street City County State Zip

Pit Name: _____ **Plant ID:** _____ **Type of Plant:** Mobile Stationary

EMISSION POINTS AND ACTIVITIES	ESTIMATED THROUGHPUT (TPY)	PM EMISSION FACTOR (LB/TON)	NUMBER OF UNITS/POINTS/MILES	UNCONTROLLED PM EMISSIONS (TPY)	SUPPRESSION ² EFFICIENCY (1-η)	CONTROLLED PM EMISSIONS (TPY)
EQUIPMENT (Output Aggregate Size)	A	B	C	(A*B*C/2000)=D	E	D*E=F
Primary Crushing (3" - 12")		0.0007 ³			0.2	
Secondary Crushing (1" - 4")		0.005 ³			0.2	
Tertiary Crushing (3/16" - 1")		0.005 ³			0.2	
Screening		0.032 ³			0.2	
Loading/Conveying/Piling (Per Transfer Point)		0.003 ³			0.2	
Hauling (miles)	N/A	6.2 lb/mile ⁴	miles		0.2	
Blasting		0.0015 ⁵			1.0	
TOTALS	N/A	N/A	N/A		N/A	

Notes on back TPY = Tons Per Year LB = Pounds TSP = Total Suspended Particulates (TSP = PM) PM = Particulate Matter PM₁₀ = Particulate Matter ≤10µm diameter

- 1 - Submit application and fees by check or money order payable to: Southwest Clean Air Agency, 11815 NE 99th Street, Suite 1294, Vancouver, WA 98682. Fees to be submitted consist of an Application Fee of \$500 plus a Review Fee based on SWCAA Regulation 400-110 (1)(d)(x).
- 2 - Efficiency shown is for wet suppression techniques. Adjust if using different techniques. Typical control efficiencies for fabric filter, 99 %; wet spray systems, 70 - 90 % (80% avg.).
- 3 - Reference EPA AP-42 Table 11.19.2-2. Emission factors for PM were obtained by multiplying PM₁₀ by 2.1.
- 4 - Reference FIRE Version 5.0 Source Classification Codes and Emission Factor Listing for Criteria Air Pollutants, EPA 454/R-95-012, August 1995, Page EF-67, SCC 3-05-020-11.
- 5 - Reference EPA AP-42, Table 11.9-1. Calculation assumes blast area of 17,000 ft², blast depth of 20 ft, and average material density of 3,240 lb/yd³.

Explain below where proposed installation is different than allowed for with the emission estimate.

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AIR DISCHARGE PERMIT ATTACHMENT

MOBILE AND STATIONARY SAND & GRAVEL AND CRUSHED STONE PLANTS PRODUCTION EQUIPMENT WORKSHEET

Business Name: _____ **Date:** _____ **Phone:** _____

Contact Name / Title: _____ **Fax:** _____

Production For This Job: _____ (tons total)

Maximum Annual Production: _____ (tons/year)

Proposed Operating Schedule:

_____ am to _____ pm _____ days per week _____ weeks per year _____ total hours per year

Maximum Operating Schedule:

_____ am to _____ pm _____ days per week _____ weeks per year _____ total hours per year

PRODUCT INFORMATION (e.g. pea gravel, oil rock, rip-rap, 1/2, __, __, 1 1/2, 3"-0, etc.)

NAME / TYPE	TONS/YEAR	MOISTURE CONTENT	ORIGIN (e.g. stream bed, dry pit, wet pit, etc.)
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

EQUIPMENT INFORMATION

Equipment	Type/Configuration	Manufacturer / Model #	Serial #	Date of Mfg.	Capacity (tph)/Size
Primary Crusher	_____	_____	_____	_____	_____
Screen / Grade	_____	_____	_____	_____	_____
Secondary Crusher	_____	_____	_____	_____	_____
Screen / Grade	_____	_____	_____	_____	_____
Tertiary Crusher	_____	_____	_____	_____	_____
Screen / Grade	_____	_____	_____	_____	_____
Quaternary Crusher	_____	_____	_____	_____	_____
Screen / Grade	_____	_____	_____	_____	_____
Additional Crusher	_____	_____	_____	_____	_____
Additional Screen	_____	_____	_____	_____	_____
Other	_____	_____	_____	_____	_____
Other	_____	_____	_____	_____	_____

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AIR DISCHARGE PERMIT ATTACHMENT

MOBILE AND STATIONARY SAND & GRAVEL AND CRUSHED STONE PLANTS

CONTROL EQUIPMENT WORKSHEET

Business Name: _____ **Date:** _____ **Phone:** _____

EMISSION CONTROL EQUIPMENT

Type of Control Equipment:

Baghouse (provide detailed information on baghouse worksheet)

Manufacturer: _____ Model #: _____ Size: _____ Serial #: _____

Scrubber (provide detailed information on scrubber worksheet)

Manufacturer: _____ Model #: _____ Size: _____ Serial #: _____

Wet Suppression (minimum water pressure to all points of application is 80 psig at the nozzle)

Control Points: (e.g. exit of jaw, exit of roll, end of conveyor, roadway, etc. - identify on plant layout sketch by number)

- | | | | | |
|-----------|------------------------------|------------------------------------|------------------------------------|--------------------------------------|
| 1. _____ | <input type="checkbox"/> Fog | <input type="checkbox"/> Spray Bar | <input type="checkbox"/> Nozzle(s) | <input type="checkbox"/> Other _____ |
| 2. _____ | <input type="checkbox"/> Fog | <input type="checkbox"/> Spray Bar | <input type="checkbox"/> Nozzle(s) | <input type="checkbox"/> Other _____ |
| 3. _____ | <input type="checkbox"/> Fog | <input type="checkbox"/> Spray Bar | <input type="checkbox"/> Nozzle(s) | <input type="checkbox"/> Other _____ |
| 4. _____ | <input type="checkbox"/> Fog | <input type="checkbox"/> Spray Bar | <input type="checkbox"/> Nozzle(s) | <input type="checkbox"/> Other _____ |
| 5. _____ | <input type="checkbox"/> Fog | <input type="checkbox"/> Spray Bar | <input type="checkbox"/> Nozzle(s) | <input type="checkbox"/> Other _____ |
| 6. _____ | <input type="checkbox"/> Fog | <input type="checkbox"/> Spray Bar | <input type="checkbox"/> Nozzle(s) | <input type="checkbox"/> Other _____ |
| 7. _____ | <input type="checkbox"/> Fog | <input type="checkbox"/> Spray Bar | <input type="checkbox"/> Nozzle(s) | <input type="checkbox"/> Other _____ |
| 8. _____ | <input type="checkbox"/> Fog | <input type="checkbox"/> Spray Bar | <input type="checkbox"/> Nozzle(s) | <input type="checkbox"/> Other _____ |
| 9. _____ | <input type="checkbox"/> Fog | <input type="checkbox"/> Spray Bar | <input type="checkbox"/> Nozzle(s) | <input type="checkbox"/> Other _____ |
| 10. _____ | <input type="checkbox"/> Fog | <input type="checkbox"/> Spray Bar | <input type="checkbox"/> Nozzle(s) | <input type="checkbox"/> Other _____ |

Mfg. of Fogger: _____	Model: _____	Flowrate: _____ (gpm)
Mfg. of Spray Bar: _____	Model: _____	Flowrate: _____ (gpm)
Mfg. of Nozzle: _____	Model: _____	Flowrate: _____ (gpm)
Mfg. of Other: _____	Model: _____	Flowrate: _____ (gpm)

Mfg. of Pump: _____ Model: _____ Size: _____ (hp) Capacity: _____ (gpm) at 80 (psig)
(replaceable screen/filter with fine mesh to be installed down stream of pump to ensure spray nozzles do not get plugged)
(pressure gauges to be installed in water supply line at accessible points to verify 80 psig minimum at spray nozzles)

Source of Water: _____

Other (describe below)

Capacity of Water Truck: _____ (gal) Proposed Frequency: _____ (# times per day)
Alternate Dust Suppression Method / Material: _____ (e.g. magnesium chloride)

Attach a sketch of your facility or plan drawing to this application showing the location of crushers, screens, conveyers, stock piles, emission control equipment, locations of spray nozzles, location of pump and water source, and distances to property boundaries. Also include arrows to show the flow of materials.