

# Southwest Clean Air Agency

11815 NE 99th Street, Suite 1294 Vancouver, WA 98682-2454 Voice: (360) 574-3058 Fax: (360) 576-0925

**Authority Use Only**

  
  
  

date stamp

**Authority Use Only**

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

**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 <sup>2</sup> EFFICIENCY (1-η <sub>c</sub> )	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 <sup>3</sup>			0.2	
Secondary Crushing (1" - 4")		0.005 <sup>3</sup>			0.2	
Tertiary Crushing (3/16" - 1")		0.005 <sup>3</sup>			0.2	
Screening		0.032 <sup>3</sup>			0.2	
Loading/Conveying/Piling (Per Transfer Point)		0.003 <sup>3</sup>			0.2	
Hauling (miles)	N/A	6.2 lb/mile <sup>4</sup>	miles		0.2	
Blasting		0.0015 <sup>5</sup>			1.0	
<b>TOTALS</b>	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      PM<sub>10</sub> = Particulate Matter ≤10μm diameter

- 1 - 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.).
- 2 - Reference EPA AP-42 Table 11.19.2-2. Emission factors for PM were obtained by multiplying PM<sub>10</sub> by 2.1.
- 3 - 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.
- 4 - Reference EPA AP-42, Table 11.9-1. Calculation assumes blast area of 17,000 ft<sup>2</sup>, blast depth of 20 ft, and average material density of 3,240 lb/yd<sup>3</sup>.

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

---

---

---

---

---

# Southwest Clean Air Agency

11815 NE 99th Street, Suite 1294 Vancouver, WA 98682-2454 Voice: (360) 574-3058 Fax: (360) 576-0925

## 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	_____	_____	_____	_____	_____

# Southwest Clean Air Agency

11815 NE 99th Street, Suite 1294 Vancouver, WA 98682-2454 Voice: (360) 574-3058 Fax: (360) 576-0925

## 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.