STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
P.O. BOX 47600
OLYMPIA, WA 98504-7600

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| IN THE MATTER OF APPROVING | ) | GENERAL ORDER OF APPROVAL |
| A NEW CONTAMINANT SOURCE | ) | FOR STATIONARY ROCK CRUSHERS |
| | ) | 06-AQG-004 |

TO: Any source applying for coverage in San Juan, Okanogan, Chelan, Douglas, Kittitas, Klickitat, Ferry, Stevens, Pend Oreille, Lincoln, Grant, Adams, Whitman, Franklin, Walla Walla, Columbia, and Asotin counties or is regulated by the Department of Ecology.

Pursuant to the State of Washington Clean Air Act Chapter 70.94 Revised Code of Washington (RCW), Washington State Department of Ecology (Ecology) general regulations for air pollution sources, Chapter 173-400 Washington Administrative Code (WAC), specifically WAC 173-400-110 WAC (New source Review) and Chapter 173-400-560 WAC (General Order of Approval), Ecology now finds the following:

**FINDINGS**

1. Any stationary rock crusher proposing to locate in one of the counties listed above or proposing to locate at a source that is regulated by Ecology may request coverage under this General Order.
2. Any stationary rock crusher proposing coverage under this General Order may be required to register as a source of air contaminants with Ecology. Registration will require the source to submit operational and emissions inventory information to Ecology.
3. Pollutants of concern from stationary rock crushers has been determined to be particulate matter (PM) and PM smaller than 10 microns in diameter ($PM_{10}$).
4. The proposed rock crusher shall be located in an area that is in attainment for PM and $PM_{10}$.
5. Any rock crusher with the capability of processing 25 tons of material per hour or more and commences construction, reconstruction, or is modified after August 31, 1983 may subject to New Source Performance Standard (NSPS) 40 CFR 60 Subpart OOO. Please contact Heather Valdez EPA Region 10 at valdez.heather@epa.gov or (206) 553-6220 for more information.
6. Best Available Control Technology (BACT) for controlling emissions of $PM/PM_{10}$ from stationary rock crushers has been determined to be wet suppression control technology in accordance with the required Fugitive Dust Control Plan (FDCP).
7. BACT for controlling emissions of $PM/PM_{10}$ fugitive emissions from haul roads has been determined to be Best Management Practices (BMP) in accordance with the required FDCP.

8. Additional permitting may be required if the source obtains electrical power from a source other than the line power.
9. Emissions of $PM_{10}$ from the proposed rock crusher do not exceed any state or federal ambient air quality standards.
10. Potential emissions from the proposed rock crusher are estimated to be:

| Activity | Pollutant | Tons of Material | Uncontrolled (lb/ton) | Controlled (lb/ton) | Uncontrolled (lb/hr) | Controlled (lb/hr) |
|---|---|---|---|---|---|---|
| Product Transfer | PM | 5300000 | 0.003 | 0.00014 | 1.815068 | 0.084703 |
| | PM10 | 5300000 | 0.0011 | 0.000046 | 0.665525 | 0.027831 |
| Screening | PM | 5300000 | 0.025 | 0.0022 | 15.12557 | 1.33105 |
| | PM10 | 5300000 | 0.0087 | 0.00074 | 5.263699 | 0.447717 |
| Primary Crusher | PM | 1325000 | 0.0054 | 0.0012 | 0.816781 | 0.181507 |
| | PM10 | 1325000 | 0.0024 | 0.00054 | 0.363014 | 0.081678 |
| Screening | PM | 1325000 | 0.025 | 0.0022 | 3.781393 | 0.332763 |
| | $PM_{10}$ | 1325000 | 0.0087 | 0.00074 | 1.315925 | 0.111929 |
| Product Transfer | PM | 1325000 | 0.003 | 0.00014 | 0.453767 | 0.021176 |
| | $PM_{10}$ | 1325000 | 0.0011 | 0.000046 | 0.166381 | 0.006958 |
| Secondary Crusher | PM | 993750 | 0.0054 | 0.0012 | 0.612586 | 0.13613 |
| | $PM_{10}$ | 993750 | 0.0024 | 0.00054 | 0.27226 | 0.061259 |
| Screening | PM | 993750 | 0.025 | 0.0022 | 2.836045 | 0.249572 |
| | $PM_{10}$ | 993750 | 0.0087 | 0.00074 | 0.986943 | 0.083947 |
| Product Transfer | PM | 993750 | 0.003 | 0.00014 | 0.340325 | 0.015882 |
| | $PM_{10}$ | 993750 | 0.0011 | 0.000046 | 0.124786 | 0.005218 |
| Tertiary Crusher | PM | 149062.5 | 0.0054 | 0.0012 | 0.091888 | 0.02042 |
| | $PM_{10}$ | 149062.5 | 0.0024 | 0.00054 | 0.040839 | 0.009189 |
| Fines Screening | PM | 149062.5 | 0.3 | 0.0036 | 5.10488 | 0.061259 |
| | $PM_{10}$ | 149062.5 | 0.072 | 0.0022 | 1.225171 | 0.037436 |
| Product Transfer | PM | 149062.5 | 0.003 | 0.00014 | 0.051049 | 0.002382 |
| | $PM_{10}$ | 149062.5 | 0.0011 | 0.000046 | 0.018718 | 0.000783 |
| Truck Loading | PM | 5300000 | 0.0001 | | 0.060502 | 0 |
| | $PM_{10}$ | 5300000 | | | 0 | 0 |
| | | | | | | |
| Unpaved Roads | PM | | | | | 1.5 |
| | $PM_{10}$ | | | | | 0.4 |
| TOTAL | | | PM | lb/hr | 31.08985 | 2.436843 |
| | | | $PM_{10}$ | lb/hr | 10.44326 | 0.873944 |
| | | | PM | ton/yr | 136.1736 | 10.67337 |
| | | | $PM_{10}$ | ton/yr | 45.74148 | 3.827875 |

11. The applicant must apply for coverage under this General Order. Please contact the appropriate Ecology office with jurisdiction over your source:

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|---|---|
| Air Quality Program<br>Central Regional Office<br>15 West Yakima Ave., Suite 200<br>Yakima, WA 98902-3401<br>Tel: (509) 575-2490 | Air Quality Program<br>Eastern Regional Office<br>4601 N. Monroe Street<br>Spokane, WA 99205-1295<br>Tel: (509) 329-3400 |
| Industrial Section<br>P.O. Box 47600<br>Olympia, WA 98504-7600<br>Tel: (360) 407-6900 | Nuclear Waste Program<br>Hanford Unit<br>3100 Port of Benton Blvd.<br>Richland, WA 99354<br>Tel: (509) 372-7950 |
| Or on the internet at http://www.ecy.wa.gov/programs/air/airhome.html. | |

12. Those rock crushers that qualify for coverage will receive a Coverage Order within 30 days after a complete application has been received. For those rock crushers that do not qualify for coverage, the applicant will receive a letter. The letter will state why the rock crusher does not qualify for coverage.
13. Based upon application submitted by the applicant and the *SUITABILITY OF ROCK CRUSHING OPERATIONS FOR AIR QUALITY GENERAL ORDER OF APPROVAL: EVALUATION OF CONTROL TECHNOLOGY, AMBIENT IMPACTS AND POTENTIAL APPROVAL CRITERIA* prepared on June 8, 2006, Ecology finds that all requirements for coverage under this general order have been satisfied. Approval to construct and operate is granted subject to the following conditions.

## APPROVAL CONDITIONS

Emissions:

1. The rock crusher shall be limited to:
   a. 14,500 tons of material processed each day.
   b. 1,500,000 tons of material process each year.
2. Visible emissions from any rock crushing operation shall be less than or equal to 10 percent opacity averaged over six (6) minutes as measured by 40 CFR Appendix A Method 9.

Location/Siting Requirements:

3. The rock crusher must be located in a county under the jurisdiction of the Department of Ecology.
4. The minimum distance from the rock crusher to the property line is 150 feet.

Required Plans:

5. Fugitive Dust Control Plan:
   c. The applicant must comply with the attached Fugitive Dust Control Plan (FDCP).
   d. Any changes to the FDCP must be approved, in advance, by Ecology.
6. Operations and Maintenance Plan:
   e. The applicant shall develop and follow an Operations and Maintenance (O&M) plan. At a minimum, it shall include:
      i. The plan shall discuss normal operation,
      ii. The plan shall require at least one inspection per operating day, and
      iii. The plan shall require the applicant to take immediate corrective action if an inspection uncovers a problem.

Monitoring/Recordkeeping/Reporting:

7. Daily records of the amount of material processes must be kept for at least three (3) years.
8. Additional information may be requested at the discretion of Ecology.

General Conditions:

9. Access to the source for the purpose of determining compliance with the terms of this General Order of Approval by Ecology staff shall be permitted during normal business hours. Failure to allow such access is grounds for revocation of this permit or an enforcement action under the Washington State Clean Air Act.

10. The applicant is required to comply with applicable rules and regulations pertaining to air quality, and conditions of operation imposed upon issuance of this order. Any violation of applicable state and/or federal air quality rules and regulations or of the terms of this approval shall be subject to the sanctions provided in Chapter 70.94 RCW. Authorization under this Order may be modified, suspended, or revoked in whole or part for cause including, but not limited to, the following:
    f. Violation of any terms or conditions of this authorization;
    g. Obtaining this authorization by misrepresentation or failure to disclose fully all relevant facts.

11. Receipt of this General Order requires the permittee to register the applicable source emission unit(s) with Ecology. Upon request, the permittee shall submit an inventory of emissions from the applicable source emission unit(s) and make payment of all applicable registration fees.

12. The provisions of this General Order of Approval are severable and if any provision of this authorization, or application of any provisions of this authorization, to any circumstance is held invalid, the application of such provision to their circumstances, and the remainder of this authorization shall not be affected thereby.

13 The applicant must apply for coverage under this General Order. Please contact the appropriate Ecology office with jurisdiction over your source:

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| Air Quality Program<br>Central Regional Office<br>15 West Yakima Ave., Suite 200<br>Yakima, WA 98902-3401<br>Tel: (509) 575-2490 | Air Quality Program<br>Eastern Regional Office<br>4601 N. Monroe Street<br>Spokane, WA 99205-1295<br>Tel: (509) 329-3400 |
| Industrial Section<br>P.O Box 47600<br>Olympia, WA 98504-7600<br>Tel: (360) 407-6900 | Nuclear Waste Program<br>Hanford Unit<br>3100 Port of Benton Blvd.<br>Richland, WA 99354<br>Tel: (509) 372-7950 |
| Or on the internet at http://www.ecy.wa.gov/programs/air/airhome.html. | |

**Approvals:**

10/6/06

Richard B. Hibbard, P.E.
Technical Services Section
Air Quality Program

RICHARD B. HIBBARD
STATE OF WASHINGTON
27809
REGISTERED
PROFESSIONAL ENGINEER
EXPIRES Exp. 7/7/08

10/06/06

Stuart A. Clark, Program Manager
Air Quality Program
Washington State Department of Ecology

Date

# Attachment 1

## Rock Crusher Fugitive Dust Control Plan Guidelines

The Ecology Air Quality Program (AQP) has developed emission control guidelines to supplement General Order No 06-AQG-004. Washington air quality regulations require "best available control technology" (BACT) to control air emissions from both **fugitive** and **process** emission points. The guidance provided below will identify emission points and provide a menu of options to control both process and fugitive particulate matter emissions for a rock crusher and associated activities.

### I. FUGITIVE EMISSION POINTS

1. Materials handling

    1.1 Front-end loader dumping into aggregate bins
    1.2 Surface mining and loading the primary (jaw) crusher
    1.3 Loading aggregate trucks with conveyor and/or front end loader
    1.4 Aggregate and/or waste being added to and/or removed from stockpiles

2. Wind erosion from exposed surfaces

3. Access roads and site vehicle access areas

4. Paved roads (carryout, spillage)

### II. PROCESS EMISSION POINTS (plant equipment configurations will vary, but all rock crushers will contain the following equipment)

1. Conveyors: Primary emission point for a conveyor is the drop distance for each transfer point

2. Crushers

3. Screens

### III. EMISSION CONTROL OPTIONS

1. REQUIRED: Water truck to be on site at all times the crusher is in operation (unless the water truck is obtaining water). The following factors should be considered when applying water to access roads and on-site vehicle access area.

    1.1 Application rate: amount of water applied per unit area
    1.2 Frequency: time between applications
    1.3 Vehicles per hour
    1.4 Weather conditions

2. REQUIRED: Water application systems are required to be installed on the crusher whenever it is in operation. The system shall include a pump, water lines, spray bars or equivalent on the all crusher discharge points and before all fines drop points. The water application rate will be dependent on the operating capacity and type of material per hour passing through each control point, and the ability to keep visible emissions below 10 percent opacity. The following factors should be considered when applying water to process control points:

2.1 Application rate: amount of water applied per ton per unit time (gals/ton/time)
2.2 When to apply
2.3 Weather conditions
2.4 Coverage area for each spray bar or nozzle

3. REQUIRED: Speed limitations for site vehicles with procedures to maintain and enforce speed restrictions

4. RECOMMENDED: Location, size, and configuration of stockpiles to reduce wind erosion

5. AS NECESSARY: Dust Suppressant

5.1 Type and amount of suppressant applied per unit area of roadway (gals/square foot)
5.2 Frequency of application (time between applications)
5.3 Traffic volumes (vehicles per hour)
5.4 Weather conditions

6. AS NECESSARY: Mechanical Cleaning (i.e., sweeping paved surfaces)

6.1 Cleaning equipment or method
6.2 Cleaning frequency

7. AS NECESSARY: Vegetation Reclamation

7.1 Type of vegetation
7.2 When and how planted
7.3 Pounds of seed or shrub/tree per acre
7.4 Watering system

8. AS NECESSARY: Wind Erosion Response Plan

The fugitive and process emission points and control options described above pertain to a rock crusher and associated activities. The Ecology Air Quality Program requires that visible particulate matter emissions be controlled to less than 10 percent opacity.