

June 18, 2001

Mr. Judah Sali, Permit Administrator  
Columbia Ready Mix, Inc.  
3307 River Road  
Yakima, WA 98902

Subject: Final Approval for Installation of a Portable Rock Crushing Facility

Dear Mr. Sali:

We have not received any adverse response from the public relative to the Preliminary Determination of Order of Approval SWCAA 01-2362 for your Notice of Construction Number L-484 submittal. Based upon the lack of critical response and the fact that more than 15 days time has passed since your draft order was sent to you, we are pleased to issue your final Order of Approval.

This Order of Approval may be appealed directly to the Pollution Control Hearings Board (PCHB) at P.O. Box 40903, Olympia, Washington 98504-0903 within 30 days of receipt of this Order as provided in RCW 43.21B. This Order may also be appealed as provided in SWCAA 400-250.

Thank you for your attention in this matter.

Sincerely,

Robert D. Elliott  
Executive Director

RDE:wls  
Attachment

1 IN THE MATTER OF COMPLIANCE WITH RCW )  
2 70.94 AND THE GENERAL REGULATIONS FOR ) SWCAA 01-2362  
3 AIR POLLUTION SOURCES OF THE SOUTHWEST ) ORDER OF APPROVAL  
4 CLEAN AIR AGENCY )  
5 Columbia Ready Mix, Inc. RESPONDENT )  
6 Glenoma, Washington )

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8 **BACKGROUND**

- 9 1. Respondent submitted Notice of Construction (NOC) number L-484 dated May 1, 2001 for  
10 installation and operation of a new portable rock crushing facility at the Martin Pit on Martin  
11 Road in Glenoma, Lewis County, Washington.
- 12 2. Information contained in NOC L-484 indicated that:
- 13 a. Respondent proposes to install the following portable crushing equipment:
- 14 (1) One Pioneer jaw crusher, serial number JF-6263, with a maximum  
15 capacity of approximately 400 tons/hour. The Pioneer crusher was  
16 constructed in 1971, and is driven by a 150 HP electric motor;
- 17 (2) One Nordberg model HP400 cone crusher with a maximum capacity of  
18 approximately 400 tons/hr. The Nordberg crusher was constructed in  
19 2000, and is driven by a 400 HP electric motor;
- 20 (3) One El-Jay cone crusher, serial number 29K0486, with a maximum  
21 capacity of approximately 200 tons/hr. The El-Jay crusher was  
22 constructed in 1985, and is driven by a 200 HP electric motor;

- 1 (4) One Canica impact crusher, serial number 9600, with a maximum capacity  
2 of approximately 300 tons/hr. The Canica crusher was constructed in  
3 1983, and is driven by a 300 HP electric motor; and
- 4 (5) One Pioneer two deck finishing screen measuring 5' in width by 16' in  
5 length. The Pioneer screening unit has a maximum capacity of  
6 approximately 400 tons/hr.
- 7 b. Water suppression will be provided at each operating location to control fugitive  
8 dust emissions. Application will be made via spray bar. Water will be supplied  
9 from onsite sources or by a water truck.
- 10 c. A 4,000 gallon water truck will be available to control fugitive emissions of  
11 particulate matter (PM) from aggregate stock piles and haul roads.
- 12 d. The rock crushing equipment will operate a maximum of 400 hours per year.  
13 Respondent estimates total production at 55,000 tpy.
- 14 e. Electrical power for the portable rock crushing equipment will be provided by a  
15 portable diesel engine generator. The diesel engine generator is described as a  
16 Caterpillar SR Series generator set powered by a Caterpillar model 3512B diesel  
17 engine rated at 1,400 brake horsepower (BHP). The Caterpillar engine has a 12  
18 cylinder, turbocharged configuration, and a specified fuel consumption of  
19 approximately 35 gallons per hour at full load. The Caterpillar generator set has a  
20 rated electrical output of 1,000 kW.
- 21 3. Emissions to the ambient atmosphere from the diesel engine generator, as proposed in NOC  
22 L-484, consist of nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO), volatile organic  
23 compounds (VOC), particulate matter (PM), and sulfur dioxide (SO<sub>2</sub>). Emissions from  
24 operation of the Caterpillar engine based on a maximum of 450 hours of operation per

1 year, an engine rating of 1,400 horsepower, and emission factors from the manufacturer  
 2 and EPA AP-42, Table 3.4-1 (10/96) are estimated to be:

<u>Pollutant</u>	<u>Emission Factor</u>	<u>Source</u>	<u>Emissions</u>
NO <sub>x</sub>	38.27 lb/hr	Caterpillar	8.61 tpy
CO	9.00 lb/hr	Caterpillar	2.03 tpy
PM <sub>10</sub>	1.29 lb/hr	Caterpillar	0.29 tpy
VOC	0.70 lb/hr	Caterpillar	0.16 tpy
SO <sub>2</sub>	0.57 lb/hr	AP-42	0.13 tpy

9 The emission factor for SO<sub>2</sub> was calculated using the formula found in EPA AP-42,  
 10 Table 3.4-1 and a maximum fuel sulfur content of 0.05% by weight.

- 11 4. Emissions to the ambient atmosphere from rock crushing operations, as proposed under  
 12 NOC L-484, consist of particulate matter (PM). Estimated emissions based on emission  
 13 factors from EPA AP-42 (1/95) Table 11.19.2-2, applied control factors, and a maximum  
 14 material throughput of 55,000 tons per year are as follows:

<u>Process Description</u>	<u>Emission Factors</u>	<u>Control</u>	<u>Throughput</u>	<u>Emissions</u>
Primary Crushing (3"-12")	0.0007 lb/ton	80%	55,000 tpy	0.004 tpy
Secondary Crushing (1"-4")	0.005 lb/ton	80%	55,000 tpy	0.028 tpy
Tertiary Crushing (3/16"-1")	0.005 lb/ton	80%	55,000 tpy	0.028 tpy
Screening	0.032 lb/ton	80%	55,000 tpy	0.18 tpy
Loading/Conveying/Piling	0.003 lb/ton	80%	55,000 tpy	0.017 tpy
Blasting	0.040 lb/ton	0%	55,000 tpy	1.1 tpy
<u>Haul Roads</u>	<u>6.2 lb/mile</u>	<u>80%</u>	<u>2,750 mi</u>	<u>1.7 tpy</u>
Total				3.06 tpy

1 The control efficiencies are typical averages for wet spray systems or wet suppression  
2 techniques used in this operation. Vehicle miles traveled for the haul road were calculated  
3 based on a throughput of 55,000 tons per year, 20 tons per load, 2,750 loads per year, 1.0  
4 mile on gravel per round trip for a total of 2,750 miles per year.

5 5. Respondent certifies that, based upon the above described parameters:

- 6 a. The equipment and systems as herein described are acceptable to other agencies  
7 with jurisdiction; and
- 8 b. No other emission sources, activities, or points of atmospheric discharge or  
9 contemporaneous emission increases are being proposed for installation at this time.

10 **APPLICABLE REGULATIONS**

11 6. Regulations have been established for the control of air pollutants emitted to the ambient air.  
12 Regulations applicable to the proposed facility which have been used to evaluate the  
13 acceptability of the proposed facility and establish emission limits and control requirements  
14 include, but are not limited to, the following regulations, codes or requirements. These  
15 items establish maximum emission limits that could be allowed and are not to be exceeded  
16 for new or existing facilities. More stringent limits are established in this Order consistent  
17 with implementation of Best Available Control Technology:

- 18 a. Title 40 Code of Federal Regulations (CFR) 60.7 "Notification and Record  
19 Keeping" requires that notification shall be submitted to SWCAA, the delegated  
20 authority, for date construction commenced, anticipated initial startup, and initial  
21 startup.
- 22 b. Title 40 CFR Part 60.8 "Performance Tests" requires that emission tests be  
23 conducted according to test methods approved in advance by the permitting  
24 authority and a copy of the results be submitted to the permitting authority.

- 1 c. Title 40 CFR 60.670 et seq. (Subpart OOO) "Standards of Performance for  
2 Nonmetallic Mineral Processing Plants" establishes opacity and particulate matter  
3 emission limits for stationary (fixed) plants with capacities greater than 25 tons per  
4 hour and portable plants greater than 150 tons per hour that were constructed,  
5 reconstructed or modified after August 31, 1983. This subpart establishes emission  
6 limits of 0.05 gram per dry standard cubic meter (g/m<sup>3</sup>) for stack emissions from any  
7 affected facility or from transfer points on belt conveyors, visible emission limits of  
8 10% opacity for transfer points on belt conveyors and other affected facilities and  
9 15% opacity for fugitive emissions from crushers without a capture system. All  
10 components of this portable rock crushing facility are subject to Subpart OOO  
11 except the Pioneer jaw crusher (manufactured before 1983).
- 12 d. RCW 70.94.141 empowers any activated air pollution control authority to prepare  
13 and develop a comprehensive plan or plans for the prevention, abatement and  
14 control of air pollution within its jurisdiction. An air pollution control authority  
15 may issue such orders as may be necessary to effectuate the purposes of the  
16 Washington Clean Air Act [RCW 70.94] and enforce the same by all appropriate  
17 administrative and judicial proceedings subject to the rights of appeal as provided  
18 in Chapter 62, Laws of 1970 ex. sess.
- 19 e. RCW 70.94.152 requires that no approval to construct or alter an air contaminant  
20 source shall be granted unless all known available and reasonable means of  
21 emissions control are provided and that the operation will not aid in the  
22 contravention of ambient air quality standards.
- 23 f. RCW 70.94.152 provides for the inclusion of conditions of operation as are  
24 reasonably necessary to assure the maintenance of compliance with the applicable

1 ordinances, resolutions, rules and regulations when issuing an Order of Approval for  
2 installation and establishment of an air contaminant source.

3 g. WAC 173-460 "Controls for New Sources of Toxic Air Pollutants" requires Best  
4 Available Control Technology for toxic air pollutants (T-BACT), identification and  
5 quantification of emissions of toxic air pollutants and demonstration of protection of  
6 human health and safety.

7 h. WAC 173-470 "Ambient Air Quality Standards for Particulate Matter" established  
8 ambient air quality standards for total suspended particulate matter and for  
9 particulate mater smaller than 10 microns (PM<sub>10</sub>), which may not be exceeded more  
10 than one day per year.

11 i. WAC 173-474 "Ambient Air Quality Standards for Sulfur Oxides" establishes  
12 ambient air quality standards for sulfur oxides in the ambient air, measured as sulfur  
13 dioxide, which shall not exceed:

14 (1) Four-tenths part per million (0.4 ppm) by volume average for a one-hour  
15 period more than once per one-year period;

16 (2) Twenty-five one-hundredths part per million (0.25 ppm) by volume average  
17 for a one-hour period more than twice in a consecutive seven-day period;

18 (3) One-tenth part per million (0.1 ppm) by volume average for a one-day period  
19 more than once per one-year period; and

20 (4) Two one-hundredths part per million (0.02 ppm) by volume average for a  
21 one-year period.

22 j. WAC 173-475 "Ambient Air Quality Standards for Carbon Monoxide, Ozone, and  
23 Nitrogen Dioxide" establishes ambient air quality standards for carbon monoxide,  
24 ozone, and nitrogen dioxide in the ambient air, which shall not be exceeded.

- 1 k. SWCAA 400-040 "General Standards for Maximum Emissions" requires all new  
2 and existing sources and emission units to meet certain performance standards with  
3 respect to Reasonably Available Control Technology (RACT), visible emissions,  
4 fallout, fugitive emissions, odors, emissions detrimental to persons or property,  
5 sulfur dioxide, concealment and masking, and fugitive dust.
- 6 l. SWCAA 400-040(1) "Visible Emissions" requires that no emission of an air  
7 contaminant from any emissions unit shall exceed twenty percent opacity for more  
8 than three minutes in any one hour at the emission point, or within a reasonable  
9 distance of the emission point.
- 10 m. SWCAA 400-040(2) "Fallout" requires that no emission of particulate matter from  
11 any source shall be deposited beyond the property under direct control of the  
12 owner(s) or operator(s) of the source in sufficient quantity to interfere unreasonably  
13 with the use and enjoyment of the property upon which the material is deposited.
- 14 n. SWCAA 400-040(3) "Fugitive Emissions," requires that reasonable precautions  
15 shall be taken to prevent the release of air contaminants to the atmosphere.
- 16 o. SWCAA 400-040(4) "Odors" requires that any person who shall cause or allow the  
17 generation of any odor from any source, which may unreasonably interfere with any  
18 other property owner's use and enjoyment of his property must use recognized good  
19 practices and procedures to reduce these odors to a reasonable minimum.
- 20 p. SWCAA 400-040(6) "Sulfur Dioxide" requires that no person shall emit a gas  
21 containing in excess of one thousand ppm of sulfur dioxide on a dry basis, corrected  
22 to 7% O<sub>2</sub> or 12% CO<sub>2</sub> as required by the applicable emission standard for  
23 combustion sources

- 1 q. SWCAA 400-040(8) "Fugitive Dust Sources" requires that reasonable precautions  
2 be taken to prevent fugitive dust from becoming airborne, and minimize  
3 emissions
- 4 r. SWCAA 400-050 "Emission Standards for Combustion and Incineration Units"  
5 requires that all provisions of SWCAA 400-040 be met and that no person shall  
6 cause or permit the emission of particulate material from any general process  
7 operation in excess of 0.23 grams per dry cubic meter (0.1 grains per dry standard  
8 cubic foot) of exhaust gas at standard conditions.
- 9 s. SWCAA 400-060 "Emission Standards for General Process Units" requires that all  
10 new and existing sources not emit particulate matter in excess of 0.1 grains per dry  
11 standard cubic foot of exhaust gas.
- 12 t. SWCAA 400-110 "New Source Review" requires that a Notice of Construction  
13 application be filed with SWCAA prior to the establishment of any new source or  
14 emission unit or modification and that an Order of Approval be issued prior to  
15 establishment of the new source or emission unit or modification.
- 16 u. SWCAA 400-113 "Requirements for New Sources in Attainment or Nonclassifiable  
17 Areas" requires that no approval to construct or alter an air contaminant source shall  
18 be granted unless it is evidenced that:
- 19 (1) The equipment or technology is designed and will be installed to operate  
20 without causing a violation of the applicable emission standards;
- 21 (2) Best Available Control Technology will be employed for all air  
22 contaminants to be emitted by the proposed equipment;
- 23 (3) The proposed equipment will not cause any ambient air quality standard to  
24 be exceeded; and

1 (4) If the proposed equipment or facility will emit any toxic air pollutant  
2 regulated under WAC 173-460, the proposed equipment and control  
3 measures will meet all the requirements of that Chapter.

4 **REGULATORY FINDINGS**

5 7. The proposed equipment and control systems incorporate Best Available Control  
6 Technology (BACT) for the types and amounts of air contaminants emitted by the processes  
7 as described below:

8 a. Modern design for diesel-fired internal combustion engines and the use of low-sulfur  
9 diesel fuel not to exceed 0.05% sulfur by weight meets the requirements of BACT  
10 for the types and quantities of emissions from diesel engine generators at this rock  
11 crushing facility.

12 b. The use of wet suppression, including the use of fog nozzles at a minimum pressure  
13 of 80 PSI, meets the requirements of BACT for the types and quantities of emissions  
14 from this rock crushing facility.

15 c. The use of wet suppression on storage piles, material transfer, and haul roads meets  
16 the requirements of BACT for the control of fugitive PM emissions at this rock  
17 crushing facility.

18 8. The portable rock crushing facility, as proposed in NOC L-484, will not cause the ambient  
19 air quality standards established by Washington Administrative Code (WAC) 173-470  
20 "Ambient Air Quality Standards for Particulate Matter", WAC 173-474 "Ambient Air  
21 Quality Standards for Sulfur Oxides", WAC 173-475 "Ambient Air Quality Standards for  
22 Carbon Monoxide, Ozone, and Nitrogen Dioxide", and Title 40 Code of Federal  
23 Regulations Part 50 (40 CFR 50) "National Primary and Secondary Ambient Air Quality  
24 Standards" to be violated.

1 9. The portable rock crushing facility, as proposed in NOC L-484, if properly installed and  
2 maintained, can be operated without causing a violation of emission standards for sources as  
3 established under Southwest Clean Air Agency General Regulations Sections 400-040  
4 "General Standards for Maximum Emissions", 400-050 "Emission Standards for  
5 Combustion and Incineration Units", and 400-060 "Emission Standards for General Process  
6 Units".

7 **EMISSION LIMITS/REQUIREMENTS**

8 NOW, HAVING CONSIDERED THIS MATTER AND BEING DULY ADVISED, IT IS  
9 HEREBY ORDERED:

10 **OPERATIONAL REQUIREMENTS**

11 10. THAT, the portable rock crushing facility, as described in NOC L-484, be approved, subject  
12 to the requirements presented below and in Appendices A and B:

13 a. Visible emissions from equipment approved under this Order shall not exceed the  
14 following for more than 3 minutes in any one hour period as determined by a  
15 Certified Observer certified in accordance with 40 CFR 60, Appendix A, Method 9  
16 "Visual Determination of the Opacity of Emissions From Stationary Sources":

<u>Equipment</u>	<u>Opacity Limit</u>
Rock crushing equipment	0%
Generator engine exhaust	5%

20 Data acquisition and reduction shall be in accordance with SWCAA 400, Appendix  
21 A "SWCAA Method 9".

22 b. PM emissions from rock crushing operations shall not exceed 4.0 tpy. Compliance  
23 shall be based on annual material throughput, AP-42 5th Edition (1/95) Table  
24 11.19.2-2 emission factors, and control efficiencies as shown below:

	<u>Process Description</u>	<u>Emission Factors</u>	<u>Control Efficiency</u>
1			
2	Primary Crushing (3"-12")	0.0007 lb/ton	80%
3	Secondary Crushing (1"-4")	0.005 lb/ton	80%
4	Tertiary Crushing (3/16"-1")	0.005 lb/ton	80%
5	Screening	0.032 lb/ton	80%
6	Loading/Conveying/Piling	0.003 lb/ton	80%
7	Blasting	0.040 lb/ton	0%
8	Haul Roads	6.2 lb/mile	80%

c. Operation of the Caterpillar engine listed in this Order shall not exceed 450 hours per year. A nonresettable hourmeter shall be installed and maintained to record operation of the Caterpillar engine. For the purposes of emissions reporting, emissions shall be determined based on annual hours of operation and the emission factors listed below:

	<u>Pollutant</u>	<u>Emission Factor</u>
14		
15	NO <sub>x</sub>	38.27 lb/hr
16	CO	9.00 lb/hr
17	VOC	0.70 lb/hr
18	PM <sub>10</sub>	1.29 lb/hr
19	SO <sub>2</sub>	0.67 lb/hr

d. Operations which cause or contribute to odors which unreasonably interfere with any other property owner's use and enjoyment of their property shall use recognized good practice and procedures to reduce these odors to a reasonable minimum.

- 1 e. Emission points on the rock crushing equipment shall be watered via spray nozzle  
2 as necessary to control fugitive emissions. Water pressure as measured at the fog  
3 nozzle headers shall be a minimum of 80 PSIG while in operation. A water pressure  
4 gauge shall be provided by the Respondent, and shall be functional at all times  
5 during crushing operations.
- 6 f. Dust control spray nozzles shall be visually inspected once per week when in  
7 operation to ensure proper function. Clogged or defective spray nozzles shall be  
8 replaced or repaired prior to operation. Spray nozzle maintenance shall be recorded  
9 in the O/M log for each occurrence.
- 10 g. Additional water spray nozzles and equipment shall be added, as necessary, to  
11 control fugitive dust from processing equipment in the event that processes or  
12 weather patterns change which may result in insufficient water spray application to  
13 control fugitive dust from crushing operations.
- 14 h. The Caterpillar engine shall only be fired on number 2 diesel with a maximum sulfur  
15 content of 0.05% by weight. Respondent may use a fuel certification from the fuel  
16 supplier as a means of demonstrating compliance with this requirement.
- 17 i. All material storage piles and haul roads shall be watered as necessary to minimize  
18 fugitive dust emissions.
- 19 j. The rock crushing equipment listed in this Order shall be emissions tested within  
20 120 days after issuance of this Order. Emissions testing shall be performed in  
21 accordance with Appendix B of this Order.
- 22 k. An Operations and Maintenance (O/M) log, including the date and name of the  
23 person making each entry, shall be maintained for the portable rock crushing  
24 equipment listed in this Order to document the following:

- 1 (1) Visual inspection of spray nozzles recorded weekly. In the event that rock  
2 crushing equipment did not operate in a given week, nonoperation shall be  
3 recorded;
- 4 (2) Maintenance activities and equipment replacement recorded for each  
5 occurrence;
- 6 (3) Quantity of material crushed, screened, loaded and conveyed recorded per  
7 job;
- 8 (4) Length of haul road recorded for each location (unpaved and paved  
9 identified separately);
- 10 (5) Relocation of rock crushing equipment recorded for each occurrence;
- 11 (6) Hours of operation for the Caterpillar engine recorded monthly; and
- 12 (7) Upset conditions or breakdowns recorded for each occurrence.

13 The O/M log shall be kept available on site for inspection by SWCAA  
14 representatives. All records shall be maintained for a minimum period of three (3)  
15 years.

16 1. The following records shall be reported to SWCAA as indicated below:

- 17 (1) Quantity of material crushed, screened, loaded, and conveyed reported  
18 annually by March 15<sup>th</sup> for the previous calendar year;
- 19 (2) Hours of operation for the Caterpillar engine reported by March 15<sup>th</sup> for the  
20 previous calendar year;
- 21 (3) Estimate of emissions reported by March 15<sup>th</sup> for the previous calendar year;  
22 and
- 23 (4) Upset conditions reported as soon as possible in accordance with SWCAA  
24 400-107.

- 1 11. THAT, prior to movement of the portable rock crushing equipment from one job site to  
2 another, the Respondent shall notify SWCAA in writing a minimum of 10 business days in  
3 advance of the move. Notification shall include the proposed site of operation, estimate the  
4 length of operation at the proposed site, and provide operating data sufficient to demonstrate  
5 compliance with this Order and applicable regulations. Owners and/or residents of  
6 immediately adjacent properties shall be notified by the Respondent in writing a minimum  
7 of 10 business days prior to commencement of operations at the proposed location. Copies  
8 of all comments received from adjacent owners and/or residents shall be submitted to  
9 SWCAA.
- 10 12. THAT, the emission units specified in NOC L-484 shall be maintained and operated in total  
11 and continuous conformity with the emissions levels afforded by BACT. If the  
12 requirements specified in this section and Appendix A cannot be maintained, then operation  
13 of the affected emission unit shall be terminated until corrective action has been completed.

14 GENERAL REQUIREMENTS

- 15 13. THAT, for the purpose of ensuring compliance with this Order, duly authorized  
16 representatives of the Southwest Clean Air Agency shall be permitted access to  
17 Respondent's premises and the facilities being constructed, owned, operated and/or  
18 maintained by Respondent for the purpose of inspecting said facilities. These inspections  
19 are required to determine the status of compliance with this Order and applicable regulations  
20 and to perform or require such tests as may be deemed necessary.
- 21 14. THAT, the provisions, terms and conditions of this Order shall be deemed to bind  
22 Respondent, its officers, directors, agents, servants, employees, successors and assigns, and  
23 all persons, firms, and corporations acting under or for it.
- 24 15. THAT, this Order shall be posted conspicuously at or be readily available near the source.

- 1 16. THAT, Respondent shall notify SWCAA in writing within ten (10) days after completing  
2 initial installation. This notification will allow proper inspections and observations to be  
3 conducted for the equipment in a timely fashion.
- 4 17. THAT, if construction/installation has not commenced within eighteen months from date of  
5 issuance, this Order shall be invalid.
- 6 18. THAT, this Order does not supersede requirements of other Agencies with jurisdiction and  
7 further, this Order does not relieve Respondent of any requirements of any other  
8 governmental Agency. In addition to this Order, Respondent may be required to obtain  
9 permits or approvals from other agencies with jurisdiction.
- 10 19. THAT, compliance with this Order of Approval and its requirements does not relieve  
11 Respondent from the responsibility of compliance with SWCAA General Regulations for  
12 Air Pollution Sources, previously issued Regulatory Orders, RCW 70.94, Title 173 WAC or  
13 any other applicable emission control requirements, nor from the resulting liabilities and/or  
14 legal remedies for failure to comply.
- 15 20. THAT, for the purpose of ensuring compliance with the terms of this Order and applicable  
16 federal, state, and local requirements, the Southwest Clean Air Agency, in accordance with  
17 RCW 70.94, retains the right to impose additional requirements on this source as necessary.
- 18 21. THAT, Respondent shall have the burden of proof regarding unavoidable conditions that  
19 lead to excess emissions in accordance with SWCAA 400-107 "Excess Emissions." Excess  
20 emissions shall be reported to SWCAA as soon as possible. Respondent shall call in the  
21 upset condition via telephone as initial notification to SWCAA; a message may be left on  
22 the answering machine for conditions outside of normal business hours. Respondent shall  
23 record the upset conditions in the operations log for periodic inspection by SWCAA. A full  
24 report may be required by SWCAA if determined to be necessary.

1 22. THAT, if any provision of this Order shall be declared invalid by any court of competent  
2 jurisdiction, all unaffected provisions of this Order shall remain in effect and be enforceable.

3 23. THAT, the requirements of this Regulatory Order shall survive any transfer of ownership of  
4 the source or any portion thereof.

5 DATED this 18th day of June, 2001

6  
7 Reviewed by: \_\_\_\_\_

8 Paul T. Mairose, P.E.

9 Chief Engineer

10  
11 Authorized by: \_\_\_\_\_

12 Robert D. Elliott

13 Executive Director

14 Southwest Clean Air Agency

**Appendix A**  
**Condensed Summary of Operational Requirements**

**Columbia Ready Mix, Inc. Order of Approval No. 01-2362**  
**Installation of a Portable Rock Crushing Facility**

<b>1. Emissions Limitations:</b>	<b><u>Approval Limit/Requirements:</u></b>
a. PM emissions from rock crushing	Shall not exceed 4.0 tpy
b. Operation of Caterpillar engine	Shall not exceed 450 hrs/yr
c. Opacity	Shall not exceed:
(1) Rock crushing equipment	0%*
(2) Generator engine exhaust	5%*
<p>* Shall not exceed listed value for greater than 3 minutes in any one-hour period as determined by a Certified Observer certified in accordance with EPA Method 9 with data reduction as specified in SWCAA 400-040(1).</p>	
d. Emissions to the atmosphere which cause or contribute to a nuisance odor	Shall use recognized good practice and procedures to reduce these odors to a reasonable minimum
 <b>2. Operational Limitations:</b>	
a. Haul roads and material storage piles	Shall be watered as necessary to minimize fugitive dust
b. Emission points on rock crushing equipment and truck loading at the concrete	Shall be watered via spray nozzle during operation to minimize fugitive emissions. Water pressure shall be a minimum of 80 psi.
c. Additional spray nozzles and equipment	Shall be added as necessary to control fugitive dust from rock crushing equipment
d. Inspection of dust control spray nozzles	Shall be conducted weekly. Clogged or defective spray nozzles shall be replaced prior to operation
e. Approved fuel	Only #2 diesel with a maximum fuel sulfur content of 0.05% by weight.

**Appendix A**  
**Condensed Summary of Operational Requirements**

**Columbia Ready Mix, Inc. Order of Approval No. 01-2362**  
**Installation of a Portable Rock Crushing Facility**

**2. Operational Limitations (con't):**

- f. Emissions testing

**Approval Limit/Requirements:**

Rock crushing equipment shall be tested in accordance with Appendix B within 120 days of issuance of this Order.

**3. Monitoring/Recordkeeping Requirements:**

- a. Operation and Maintenance (O/M) log

Shall be kept with the rock crushing equipment. Each entry shall include the date and name of the person making the entry, and be maintained for a minimum period of 3 years.

- b. Visual inspection of spray nozzles

Shall be recorded in O/M log weekly

- c. Maintenance activities and equipment replacement

Shall be recorded in O/M log for each occurrence

- d. Quantity of material crushed, screened, loaded, and conveyed

Shall be recorded in O/M log per job

- e. Length of haul road

Shall be recorded in O/M log per job

- f. Hours of Caterpillar engine operation

Shall be recorded in O/M log monthly

- g. Relocation of rock crushing equipment

Shall be recorded in O/M log for each occurrence

- h. Upset condition or breakdown

Shall be recorded in O/M log for each occurrence

**Appendix A**  
**Condensed Summary of Operational Requirements**

**Columbia Ready Mix, Inc. Order of Approval No. 01-2362**  
**Installation of a Portable Rock Crushing Facility**

**4. Reporting Requirements:**

**Approval Limit/Requirements:**

- |   |   |
|---|---|
| a. Quantity of material crushed, screened, loaded, and conveyed | Reported to SWCAA by March 15 <sup>th</sup> for the previous calendar year  |
| b. Hours of operation for Caterpillar engine                    | Reported to SWCAA by March 15 <sup>th</sup> for the previous calendar year  |
| c. Estimate of emissions  | Reported to SWCAA by March 15 <sup>th</sup> for the previous calendar year  |
| d. Upset conditions   | Reported to SWCAA as soon as possible in accordance with SWCAA 400-107  |
| e. Emission test results  | Reported to SWCAA within 45 days of test date   |
| f. Relocation of rock crushing equipment                        | Reported to SWCAA and adjacent owners and/or residents in writing a minimum of 10 business days prior to relocation |

**Appendix B  
Testing Requirements**

**Columbia Ready Mix, Inc. Order of Approval No. 01-2362**

**1. Introduction:**

- a. The purpose of this testing is to quantify emissions from rock crushing equipment when functioning at maximum operating conditions and to demonstrate compliance with the requirements of this Order of Approval.
- b. Compliance testing shall be performed within 120 days of initial installation in SWCAA jurisdiction.
- c. A comprehensive test plan shall be submitted to SWCAA for review and approval two weeks prior to each test.
- d. SWCAA personnel shall be informed at least five business days prior to testing so that a representative may be present during testing.
- e. A minimum of three (3) hours of observations shall be taken as required by 40 CFR 60.11 “Compliance with standards and maintenance requirements”. Test duration may be reduced one (1) hour if the conditions contained in 40 CFR 60.675 “Test methods and procedures” are satisfied.
- f. Testing shall include all constituents identified below. The sampling methods identified in Section 2 below shall be used unless alternate methods submitted in a test plan by the Respondent are approved by SWCAA in advance of the source testing.

**2. Testing Requirements:**

- a. Constituents to be measured: Test Methods or Equivalent:
  - (1) Opacity of visible emissions EPA Method 9
- b. Process Points to Be Tested:
  - (1) Each rock crusher;
  - (2) Each screening unit; and
  - (3) Each conveyor transfer point except transfer to a stockpile.

**Appendix B**  
**Testing Requirements**

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**Columbia Ready Mix, Inc. Order of Approval No. 01-2362**

**3. Source Operation:**

- a. A complete record of production related parameters including natural gas usage, steam production rate, process startups, shutdowns, and adjustments shall be kept during emissions testing to correlate operations with emissions and shall be recorded in the test results report.
- b. Source operations during the emissions test must be representative of maximum intended operating conditions.

**4. Reporting:**

- a. Opacity observation data shall be reduced and analyzed using the protocols in both EPA Method 9 and SWCAA Method 9.
- b. Compliance shall be determined by comparing the reduced opacity data with the visible emission limits contained in this Order and the New Source Performance Standard for Nonmetallic Mineral Processing Plants (40 CFR 60, Subpart OOO).
- c. A final emission test report shall be prepared and submitted to SWCAA within 45 calendar days of test completion and, at a minimum, shall contain the following information:
  - (1) A description of the source including manufacturer, model number and design capacity of the equipment, and the location of the sample ports or test locations;
  - (2) Time and date of the test and identification and qualifications of the personnel involved;
  - (3) A summary of results, reported in units and averaging periods consistent with the applicable emission standard or limit;
  - (4) A summary of control system or equipment operating conditions;
  - (5) A summary of production related parameters;
  - (6) A description of the test methods or procedures used including all field data, quality assurance/quality control procedures and documentation;
  - (7) A description of the analytical procedures used including all laboratory data, quality assurance/quality control procedures and documentation;
  - (8) Copies of field data and example calculations;
  - (9) Chain of custody information;
  - (10) Discussion of any abnormalities associated with the results; and
  - (11) A statement signed by the senior management official of the testing firm certifying the validity of the source test report.