



State of Utah

Department of
Environmental Quality

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Executive Director

DIVISION OF AIR QUALITY
Richard W. Sprott
Director

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DAQE-AN0407007-05

May 13, 2005

Chris Faulhaber
Construction Products Company
1075 North Warm Springs Road
Salt Lake City, Utah 84116

Dear Mr. Faulhaber:

Re: Approval Order: A New Hydrocone Crusher to be Installed to Replace a Cone Crusher as a Replacement in Kind, Salt Lake County – CDS-SM; NA; MAINT; SIP, NSPS, HAPs, TITLE V Minor Project Code: N0407-007

The attached document is the Approval Order (AO) for the above-referenced project.

Future correspondence on this Approval Order should include the engineer's name as well as the DAQE number as shown on the upper right-hand corner of this letter. Please direct any technical questions you may have on this project to Mr. Maung Maung. He may be reached at (801) 536-4153.

Sincerely,

Richard W. Sprott, Executive Secretary
Utah Air Quality Board

RWS:MM:re

cc: Salt Lake Valley Health Department

STATE OF UTAH

Department of Environmental Quality

Division of Air Quality

**APPROVAL ORDER: A New Hydrocone Crusher to be Installed
to Replace a Cone Crusher as a Replacement in Kind**

**Prepared By: Maung Maung, Engineer
(801) 536-4153
Email: mmaung@utah.gov**

APPROVAL ORDER NUMBER

DAQE-AN0407007-05

Date: May 13, 2005

Construction Products Company

**Source Contact
Chris Faulhaber
(801) 526-6000**

**Richard W. Sprott
Executive Secretary
Utah Air Quality Board**

Abstract

Construction Products Company (CPC), parent company Granite Construction Company operates the aggregate mine and two (2) hot-mix asphalt plants located at 6901 South Wasatch Boulevard, Salt Lake County, known as the Walker Source. The company has proposed to install a hydrocone crusher to replace a roller cone crusher which is presently approved in the Approval Order (AO) DAQE-AN0407006-05, dated April 6, 2005. Both crushers have the same production capacity of 450 tons per hour. Replacement of crusher will not increase any emissions.

The existing AO is being modified as a replacement in kind.

Salt Lake County is a non-attainment area of the National Ambient Air Quality Standards (NAAQS) for PM₁₀ and SO₂, and is a maintenance area for ozone. New Source Performance Standards (NSPS) 40 CFR 60 - Subparts A (General Conditions), I (Standards of Performance for Hot Mix Asphalt Plants), and OOO (Standards of Performance for Non-metallic Mineral Processing Plants) apply to this source. National Emission Standards for Hazardous Air Pollutants (NESHAP) and Maximum Available Control Technology (MACT) regulations do not apply to this source. Title V of the 1990 Clean Air Act applies to this source. The potential to emit totals, in tons per year, will stay the same as follows: PM₁₀ = 18.29, NO_x = 58.68, SO₂ = 4.10, CO = 37.10, VOC = 20.71, HAPs = 2.36.

The above-referenced project has been evaluated and found to be consistent with the requirements of the Utah Administrative Code Rule 307 (UAC R307), and the Utah Air Conservation Act. A public comment period was not required for this project. This air quality AO authorizes the project with the following conditions and failure to comply with any of the conditions may constitute a violation of this order:

General Conditions:

1. This Approval Order (AO) applies to the following company:

Site Office

Construction Products Company
6901 South Wasatch Blvd.
Salt Lake County, UT 84121

Corporate Office Location

Granite Construction Company
1000 North Warm Springs Rd.
Salt Lake City, UT 84116

Phone Number (801) 526-6116

Fax Number (801) 578-7916

The equipment listed in this AO shall be operated at the following location:

6901 South Wasatch Blvd., Salt Lake County

Universal Transverse Mercator (UTM) Coordinate System: UTM Datum NAD27
4,497.46 kilometers Northing, 432.74 kilometers Easting, Zone 12

2. All definitions, terms, abbreviations, and references used in this AO conform to those used in the Utah Administrative Code (UAC) Rule 307 (R307) and Title 40 of the Code of Federal Regulations (40 CFR). Unless noted otherwise, references cited in these AO conditions refer to those rules.
3. The limits set forth in this AO shall not be exceeded without prior approval in accordance with R307-401.
4. Modifications to the equipment or processes approved by this AO that could affect the emissions covered by this AO must be reviewed and approved in accordance with R307-401-1.
5. All records referenced in this AO or in applicable NSPSs that are required to be kept by the owner/operator shall be made available to the Executive Secretary or Executive Secretary's representative upon request, and the records shall include the two-year period prior to the date of the request. Records shall be kept for the following minimum periods:
 - A. Emission inventories: Five years from the due date of each emission statement or until the next inventory is due, whichever is longer.
 - B. All other records: Two years.
6. CPC shall install an additional two silos, condition # 9.A.4 (approved under AO DAQE-AN0407006-05), and a Hydrocone crusher, condition # 9.H, and shall conduct operations of the Walker Source in accordance with the terms and conditions of this AO, which was written pursuant to CPC's Notice of Intent submitted to the Division of Air Quality (DAQ) on November 18, 2004. and April 28, 2005.
7. Regardless of any inconsistency between conditions of this AO and Section IX, Part H, and Subpart 2.b of Section IX, Part H (Emission Limitations) of the SIP, this AO shall take precedence as provided by R307-305-2. The language of Section IX, Part H.2.a and Section IX, Part H.2.b.H have been incorporated into this AO.
8. This AO shall replace the AO (DAQE-AN0407006-05) dated April 6, 2005.
9. The approved installations shall consist of the following equipment or equivalent:
 - A. One (1) - BMG 45 R 30, drum mix asphalt plant
Attached Equipment
 - 1) One (1) - Fabric Filter Baghouse
 - 2) One (1) - 25-ton lime silo
Attached Equipment: One (1) - Fabric Filter Baghouse
 - 3) Cold feed bins
 - 4) Four (4) - 300-ton hot mix asphalt storage silos (two new additional added with this modification)
 - 5) One (1) - pugmill

- B. One (1) - H&B dual (2) drum asphalt plant
Attached Equipment
 - 1) Two (2) Fabric Filter baghouses - one on each drum
 - 2) Cold feed bins
 - 3) One (1) - 25-ton lime silo
Attached Equipment: One (1) - Fabric Filter Baghouse
 - 4) One (1) - scalping screen
 - 5) Four (4) - cold aggregate storage silos
 - 6) One (1) - pugmill
 - 7) Three (3) - hot mix asphalt storage silos totaling 890 tons

- C. Four (4) - triple deck screens
Make: El Jay
Size: 6' x 20'
Capacity: 780 tons per hour per screen

- D. One (1) - double-deck screen
Make: El Jay
Size: 5' x 16'
Capacity: 520 tons per hour

- E. One (1) - triple-deck screen
Make: Deister
Size: 8' x 20'
Capacity: 450 tons per hour
Manufacture Date: 1997

- F. One (1) - triple-deck screen
Make: Cedarapids
Size: 6' x 20'
Capacity: 780 tons per hour
Manufacture Date: 1998

- G. One (1) - jaw crusher
Make: Cedarapids
Size: 32" x 42"
Capacity: 900 tons per hour

- H. One (1) – Hydrocone crusher (new replacement)
Make: H6800
Capacity: 450 tons per hour
Manufacture Date: 2005

- I. One (1) - standard head cone crusher
Make: El Jay
Capacity: 380 tons per hour

- J. One (1) - fine head cone crusher
 Make: El Jay
 Capacity: 330 tons per hour

- K. One (1) - impact crusher
 Make: Texas Crusher System
 Capacity: 500 tons per hour
 Manufacture date: 1996

- L. Two (2) - feeders
 Make: Cedarapids
 Size: 42" x 16"

- M. One (1) - Feeder
 Make: Symtron
 Size: 65" x 42"
 Capacity: 600 tons per hour

- N. One (1) - diesel generator
 Make: Caterpillar
 Size: 500 kW

- O. One (1) - diesel generator
 Make: Caterpillar
 Size: 1250 kW

- P. Various conveyors

- Q. Various Off-highway Equipment Items **
 Front-end loaders
 Bulldozers
 Backhoes
 Water truck

Equivalency shall be determined by the Executive Secretary.

** Listed for informational purposes only.

- 10. The three (3) asphalt plant baghouses shall control process streams from each associated asphalt mixing drums. The two (2) H&B asphalt plant baghouses shall be sized to handle at least 33,000 ACFM each, for the existing conditions. The one (1) BMG asphalt plant baghouse shall be sized to handle at least 57,000 ACFM for the existing conditions. All exhaust air from each asphalt-mixing drum shall be routed through its dedicated baghouse before being vented to the atmosphere.

- 11. Only two out of four 300-ton hot mix asphalt storage silos attached to BMG 45 R 30 drum mix asphalt plant shall operate at any one time.

12. A manometer or magnehelic pressure gauge shall be installed on each of the three (3) asphalt plant baghouses to measure the differential pressure across the fabric filters in each of the baghouses. Static pressure differential across the fabric filters shall be between 1.1 to 6.0 inches of water column. The pressure gauge shall be located such that an inspector /operator can safely read the indicator at any time. The readings shall be accurate to within plus or minus one (1.0) inches water column. Intermittent recording of the readings are required on a once per operational day basis.
13. CPC shall notify the Executive Secretary (attn: Compliance Section) in writing when the installation of two additional silos listed in Condition #9-A 4 and a hydrocone crusher Condition #9-H has been completed and are operational, as an initial compliance inspection is required.

If installation has not been completed within eighteen months from the date of this AO, the Executive Secretary shall be notified in writing on the status of the installation. At that time, the Executive Secretary shall require documentation of the continuous installation of the operation and may revoke the AO in accordance with R307-401-11.

Limitations and Tests Procedures

14. Visible emissions from the following emission points shall not exceed the following values:
 - A. All crushers - 15% opacity
 - B. All screens - 10% opacity
 - C. All conveyor transfer points - 10% opacity
 - D. All baghouse exhaust stacks - 10% opacity
 - E. All diesel engines - 20% opacity
 - F. Conveyor drop points - 20% opacity
 - G. All other points - 20% opacity

Opacity observations of emissions from stationary sources shall be conducted according to 40 CFR 60, Appendix A, Method 9.

For sources that are subject to NSPS, opacity shall be determined by conducting observations in accordance with 40 CFR 60.11(b) and 40 CFR 60, Appendix A, Method 9.

15. Visible fugitive dust emissions from haul-road traffic and mobile equipment in operational areas shall not exceed 20% opacity. Visible emissions determinations for traffic sources shall use procedures similar to Method 9. The normal requirement for observations to be made at 15-second intervals over a six-minute period, however, shall not apply. Six points, distributed along the length of the haul road or in the operational area, shall be chosen by the Executive Secretary or the Executive Secretary's representative. An opacity reading shall be made at each point when a vehicle passes the selected points. Opacity readings shall be made ½

vehicle length or greater behind the vehicle and at approximately 1/2 the height of the vehicle or greater. The accumulated six readings shall be averaged for the compliance value.

16. The following limits shall not be exceeded:
- A. 650,000 tons per rolling 12-month period of asphalt production
 - B. 4000 hours per rolling 12-month period of asphalt production
 - C. 2,000,000 tons per rolling 12-month period for total non-washed aggregate production
 - D. 500,000 tons per rolling 12-month period for washed aggregate production
 - E. 6,200 hours per rolling 12-month period for aggregate production

To determine compliance with a rolling 12-month total the owner/operator shall calculate a new 12-month total by the twentieth day of each month using data from the previous 12 months. Records of production shall be kept for all periods when the plant is in operation. Production of the various products shall be determined by maintaining a production log for each material. The records of production shall be kept on a daily basis. Hours of operation shall be determined by supervisor monitoring and maintaining of an operations log.

17. Emissions to the atmosphere at all times from the indicated emission point(s) shall not exceed the following rates and concentrations:

Source: (BMG Single Drum Asphalt Plant Stack)

<u>Pollutant</u>	<u>lb/hr</u>	<u>grains/dscf</u> (68°F, 29.92 in Hg)
PM ₁₀ (virgin).....	9.53.....	0.024
PM ₁₀ (recycle).....	11.12.....	0.028
SO ₂	1.49	
NO _x	13.50	

Source: (H&B Dual Drum Asphalt Plant - Each of Two (2) Baghouse Stacks)

<u>Pollutant</u>	<u>lb/hr</u>	<u>grains/dscf</u> (68°F, 29.92 in Hg)
PM ₁₀ (virgin).....	7.62.....	0.024
PM ₁₀ (recycle).....	8.90.....	0.028
SO ₂	2.25	
NO _x	11.25	

18. Stack testing to show compliance with the emission limitations stated in the above condition shall be performed as specified below:

<u>Emissions Point</u>	<u>Pollutant</u>	<u>Testing Status</u>	<u>Test Frequency</u>
Asphalt Plant Stacks (all stacks shown above)	PM ₁₀	*	@
	SO ₂	*	@
	NO _x	*	@

B. Testing Status (To be applied above)

* Initial compliance testing has already been performed.

@ Test every three years or sooner, if directed by the Executive Secretary. Tests may be required if the source is suspected to be in violation with other conditions of this AO.

C. Notification

The Executive Secretary shall be notified at least 30 days prior to conducting any required emission testing. A source test protocol shall be submitted to DAQ when the testing notification is submitted to the Executive Secretary. The source test protocol shall be approved by the Executive Secretary prior to performing the tests. The source test protocol shall outline the proposed test methodologies, stack to be tested, and procedures to be used. A pretest conference shall be held, if directed by the Executive Secretary.

D. PM₁₀

For stacks in which no liquid drops are present, the following methods shall be used: 40 CFR 51, Appendix M, Methods 201 or 201a. The back half condensibles shall also be tested using the method specified by the Executive Secretary. All particulate captured shall be considered PM₁₀.

For stacks in which liquid drops are present, methods to eliminate the liquid drops should be explored. If no reasonable method to eliminate the drops exists, then the following methods shall be used: 40 CFR 60, Appendix A, Method 5, 5a, 5d, or 5e as appropriate. The back half condensibles shall also be tested using the method specified by the Executive Secretary. The portion of the front half of the catch considered PM₁₀ shall be based on information in AP-42, Appendix C or other data acceptable to the Executive Secretary.

The back half condensibles shall not be used for compliance demonstration but shall be used for inventory purposes.

E. Sample Location

The emission point shall be designed to conform to the requirements of 40 CFR 60, Appendix A, Method 1, or other methods as approved by the Executive Secretary. An Occupational Safety and Health Administration (OSHA) or Mine Safety and Health Administration (MSHA) approved access shall be provided to the test location.

F. Volumetric Flow Rate

40 CFR 60, Appendix A, Method 2 or other testing methods approved by the Executive Secretary.

- G. Sulfur Dioxide (SO₂)
40 CFR 60, Appendix A, Method 6, 6A, 6B, 6C, or other testing methods approved by the Executive Secretary.
- H. Nitrogen Oxides (NO_x)
40 CFR 60, Appendix A, Method 7, 7A, 7B, 7C, 7D, 7E, or other testing methods approved by the Executive Secretary.
- I. Calculations
To determine mass emission rates (lb/hr, etc.) the pollutant concentration as determined by the appropriate methods above shall be multiplied by the volumetric flow rate and any necessary conversion factors determined by the Executive Secretary, to give the results in the specified units of the emission limitation.
- J. Existing Source Operation
For an existing source/emission point, the production rate during all compliance testing shall be no less than 90% of the maximum production achieved in the previous three (3) years.

Roads and Fugitive Dust

- 19. CPC shall abide by a fugitive dust control plan acceptable to the Executive Secretary for control of all dust sources associated with the Walker Source. CPC shall abide by the most current fugitive dust control plan approved by the Executive Secretary. The fugitive dust control plan shall contain sufficient controls to prevent an increase in PM₁₀ emissions above those modeled for this AO. The haul road speed shall be posted.
- 20. The facility shall abide by all applicable requirements of R307-309 for PM₁₀ non-attainment areas (Salt Lake, Utah, Davis Counties and Ogden City)] for Fugitive Emission and Fugitive Dust sources.

Fuels

- 21. The owner/operator shall use natural gas as fuel in each of the two asphalt plants.
- 22. The sulfur content of any fuel oil burned shall not exceed:

0.50 percent by weight for diesel fuels consumed in all internal combustion engines.

The sulfur content shall be determined by ASTM Method D-4294-89 or approved equivalent. Certification of fuels shall be either by CPC's own testing or test reports from the fuel marketer.

Federal Limitations and Requirements

23. In addition to the requirements of this AO, all applicable provisions of 40 CFR 60, New Source Performance Standards (NSPS) Subpart A, 40 CFR 60.1 to 60.18, Subpart I, 40 CFR 60.90 to 60.93 (Standards of Performance for Hot Mix Asphalt Plants), and Subpart OOO, 40 CFR 60.670 to 60.676 (Standards of Performance for Non-metallic Mineral Processing Plants) apply to this installation.

Records & Miscellaneous

24. At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any equipment approved under this Approval Order including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Executive Secretary which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. All maintenance performed on equipment authorized by this AO shall be recorded.
25. The owner/operator shall comply with R307-150 Series. Inventories, Testing and Monitoring.
26. The owner/operator shall comply with R307-107. General Requirements: Unavoidable Breakdowns.

The Executive Secretary shall be notified in writing if the company is sold or changes its name.

This AO in no way releases the owner or operator from any liability for compliance with all other applicable federal, state, and local regulations including R307.

A copy of the rules, regulations and/or attachments addressed in this AO may be obtained by contacting the Division of Air Quality. The Utah Administrative Code R307 rules used by DAQ, the Notice of Intent (NOI) guide, and other air quality documents and forms may also be obtained on the Internet at the following web site: <http://www.airquality.utah.gov/>

The annual emission estimations below include point source, fugitive emissions, fugitive dust, road dust, tail pipe emissions, etc. and do not include grandfathered emissions, etc. These emissions are for the purpose of determining the applicability of Prevention of Significant Deterioration, non-attainment area, maintenance area, and Title V source requirements of the R307. They are not to be used for determining compliance.

The Potential To Emit (PTE) emissions for all activities within the CPC - Walker Source are currently calculated at the following values:

	<u>Pollutant</u>	<u>Tons/yr</u>
A.	PM ₁₀	18.29
B.	SO ₂	4.10
C.	NO _x	58.68
D.	CO	37.10
E.	VOC	20.71
F.	HAPs	
	Formaldehyde, Quinone, Toluene, Xylene	
	Total HAPs	2.36

Approved By:

Richard W. Sprott, Executive Secretary
Utah Air Quality Board