

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

IN THE MATTER OF APPROVING A)
NEW CONTAMINANT SOURCE FOR)
CENTRAL WASHINGTON ASPHALT, INC.) **Proposed Decision Regarding
Notice of Construction ORDER
No. 08AQ-C086**

To: **Central Washington Asphalt, Inc.**
PO Box 939
Moses Lake, WA 98837

1.0 PROJECT SUMMARY

On June 25, 2008, Central Washington Asphalt, Inc. (“Central Washington Asphalt”) submitted a Notice of Construction application to the Department of Ecology (Ecology) to install and operate a stationary hot mix asphaltic concrete production plant (“asphalt plant”) near the city of Wenatchee, in Chelan County, Washington.

The Department of Ecology APPROVES Central Washington Asphalt’s proposal by issuing this ORDER. The project location is parcel numbers 24024330150 and 24024320050 within the southwest ¼ of Section 24, Township 24 North, Range 20 East, Willamette Meridian, Wenatchee, Chelan County, Washington.

In relation to the above, the Department of Ecology, State of Washington, pursuant to Revised Code of Washington (RCW) 70.94.152, makes the following determinations:

- 1.1 The proposed source qualifies as a new source of air contaminants under Washington Administrative Code (WAC) 173-400-110, and a new source of toxic air pollutants under WAC 173-460-040.
- 1.2 The proposed source is not a new major stationary source or major modification to a major stationary source that is subject to the Prevention of Significant Deterioration permitting requirements of WAC 173-400-700 through 750.
- 1.3 The proposed source will be located in an area which is in attainment or unclassifiable for all criteria pollutants.
- 1.4 The proposed source, if constructed and operated as herein required, will not delay the attainment date for an area not in attainment, or cause or contribute to a violation of any ambient air quality standard. Potential emissions from the source were modeled using SCREEN3, a screening dispersion model recommended by the United States Environmental Protection Agency (EPA). All potential criteria

and toxic pollutant emissions comply with the ambient air quality standards and the requirements of Chapter 173-460 WAC, New Sources of Toxic Air Pollutants, respectively.

- 1.5 The proposed source, if constructed and operated as herein required, will be in accordance with applicable rules and regulations, as set forth in Chapter 173-400 WAC and Chapter 173-460 WAC, and the operation thereof, at the location proposed, will comply with all applicable new source performance standards, national emission standards for hazardous air pollutants, national emission standards for hazardous air pollutants for source categories, and emission standards adopted under Chapter 70.94 RCW.
- 1.6 The proposed source, if constructed and operated as herein required, will employ Best Available Control Technology (BACT) to control emission of criteria pollutants, and Best Available Control Technology for toxics (T-BACT) to control emission of toxic air pollutants.
- 1.7 The project has satisfied the environmental review requirements of the State Environmental Policy Act (SEPA). A *Mitigated Determination of Nonsignificance* (MDNS) was issued by Chelan County Department of Community Development, acting as lead agency, on June 30, 2008.

THEREFORE, IT IS ORDERED that the project as described in said Notice of Construction application and more specifically detailed in plans, specifications and other information submitted to the Department of Ecology in reference thereto, is approved for construction, installation and operation, provided the following conditions are met:

2.0 APPROVAL CONDITIONS

2.1 LAWS AND REGULATIONS

- 2.1.1 The proposed project shall comply with all current state laws and regulations, including Chapter 70.94 RCW, Washington Clean Air Act; Chapter 173-400 WAC, General Regulations for Air Pollution Sources; and Chapter 173-460 WAC, Controls for New Sources of Toxic Air Pollutants.
- 2.1.2 The proposed project shall comply with all current federal laws and regulations, including Title 40 Code of Federal Regulations (CFR), Part 60, Subpart I, July 1, 1996, Standards of Performance for Hot Mix Asphalt Facilities.

2.2 QUANTIFIED EMISSIONS

Central Washington Asphalt may produce up to the following annual emissions under the ordered physical and operational conditions:

Pollutant	Emissions	
Criteria Pollutants		
Total Suspended Particulate (TSP)	7.6	tons per year
Particulate Matter (PM ₁₀)	5.1	tons per year
Particulate Matter (PM _{2.5})	4.8	tons per year
Carbon Monoxide (CO)	26.3	tons per year
Nitrogen Oxides (NO _x)	11.0	tons per year
Sulfur Dioxide (SO ₂)	2.2	tons per year
Volatile Organic Compounds (VOC)	8.2	tons per year
Toxic Air Pollutants		
Asphalt fumes	8.2	tons per year
Benzene	157.3	pounds per year
Benzo(a)pyrene	0.0056	pounds per year
Dioxins and Furans	0.000012	pounds per year
Formaldehyde	1,260	pounds per year
Arsenic	0.22	pounds per year
Cadmium	0.16	pounds per year
Lead	6.0	pounds per year
Nickel	25.2	pounds per year
Nitric Oxide	22,000	pounds per year
Hexavalent Chromium	0.18	pounds per year
Polycyclic Aromatic Hydrocarbons (PAH)	0.46	pounds per year
Other toxic air pollutants*	3.1	tons per year

*All of these toxic air pollutants are estimated to be emitted at rates less than their corresponding small quantity emission rate, per WAC 173-460-080(2)(e). Quantified pollutants in this category include: Acetone; Antimony; Barium; Bromomethane; 2-Butanone (MEK); Butane; Carbon disulfide; Chloroethane; Chloromethane; Chromium (ii & iii); Cobalt; Copper; Ethylbenzene; Heptane; Hexanes (total); Manganese; Mercury; Methylene chloride; Methyl chloroform; Naphthalene; Pentane; Phosphorus; Selenium; Silver; Styrene; Tetrachloroethene; Thallium; Toluene; Trichlorofluoromethane; Xylenes (total); and Zinc (as ZnO fume).

2.3 BACT

As required by WAC 173-400-113(2), this project shall use Best Available Control Technology (BACT) to control emission of particulate matter, sulfur dioxide, nitrogen oxides, carbon monoxide and volatile organic compounds. The following control technologies and limitations are determined to satisfy the BACT requirement:

- 2.3.1 The use of a properly maintained and operated fabric filter control device (baghouse) to control emissions from the drum-mix dryer. Total particulate emissions at the baghouse exhaust shall not exceed 0.020 grains per dry standard cubic foot, corrected to 7% oxygen.
- 2.3.2 The use of natural gas, liquefied petroleum gas, or No. 2 distillate fuel oil with a sulfur content of 0.05% or less, by weight, to fire the drum-mix dryer.
- 2.3.3 Burner design, periodic evaluation of burner operation and effective maintenance of the burner.
- 2.3.4 The use of ducting with a scavenger fan to collect volatile organic compounds (VOC) and asphalt fumes, from the asphalt storage silo and routing the collected emissions to the burner to be consumed.
- 2.3.5 Paving, chemical treatment with approved binders, or water application on all areas of vehicular travel within the source. Good housekeeping and maintenance of all paved roads.
- 2.4 **T-BACT**
As required by WAC 173-460-040(4)(b), this project shall use Best Available Control Technology for Toxics (T-BACT) to control emission of toxic air pollutants. Compliance with BACT conditions in section 2.3 above is determined to satisfy the T-BACT requirement.
- 2.5 **PRODUCTION AND EQUIPMENT RESTRICTIONS**
- 2.5.1 Asphalt production shall not exceed 450 tons per hour and 4,000 tons in any one (1) calendar day. Total asphalt production shall not exceed 400,000 tons in any consecutive 12 months, rolled monthly.
- 2.5.2 As currently permitted, the source shall be limited to the installation and operation of the following emission units and activities:

Emission Unit or Activity	Description
Drum-Mix Dryer	Astec Turbo Double Barrel [®] counter-flow drum mixer; fuel-oil fired
Fabric filter (Baghouse)	Cedar Rapids E-400 pulsejet system; 64,000 cubic feet per minute with a filter area of 12,930 square feet

Emission Unit or Activity	Description
Asphalt Cement Storage Tank	30,000 gallon tank capacity. A maximum of 4,362,000 gallons per year of asphalt cement shall be stored
Hot Mix Asphalt Storage Silo	Limit production according to Condition 2.5.1
Asphalt Cement Heater	Shall be powered by line power
Miscellaneous Processing Activities	Include aggregate handling, storage piles, and vehicular traffic on paved and unpaved roads

- 2.5.3 Installation of more emission units than specified herein, production rates greater than the specified rates, or any modifications to the specified units or activities that increase emissions of any regulated air pollutant, may require approval by Ecology of separate Notice of Construction applications.
- 2.5.4 Recycled Asphalt Pavement (RAP) shall be processed at the facility only under all of the following conditions:
- 2.5.4.1 The proportion of RAP in the feed material while the plant is producing asphalt shall not exceed the percentage of RAP during the most recent Ecology-approved performance test that demonstrates the asphalt plant is capable of achieving all emission limits contained in this Order with that amount of RAP as part of the feed. The performance test results used for this purpose shall not be more than five years (5) old, and will not have been contradicted by a more recent source test. RAP usage is not restricted during source testing for the purpose of demonstrating compliance.
- 2.5.4.2 No RAP shall enter the drum mixer in the primary or radiation zone. The point at which RAP is introduced shall be no closer to the aggregate feed end of the drum mixer than the midpoint of the drum mixer.
- 2.5.5 All fuel used shall be natural gas, liquefied petroleum gas (LPG), or No.2 diesel fuel oil with a sulfur content of 0.05% or less, by weight. Oil blends that meet ASTM D975 specifications for No.2 diesel fuel oil, or ASTM D6751 specifications for biodiesel blends, and the used oil specifications of RCW 70.94.610 may be used only if no condition in this Order will be violated.
- 2.5.6 An interlock or other fail-safe device will prevent the drum mixer from operating while the baghouse or exhaust fan is not operating. The dryer and asphalt plant shall not be operated unless the baghouse is on-line.

2.5.7 Exhaust stack dimensions and operating parameters for the baghouse exhaust shall be in accordance with plans and specifications submitted as part of the Notice of Construction application. The discharge point for the baghouse exhaust shall be at least 44 feet above ground level.

2.5.8 As currently permitted, emission units shall be located as specified below:

Emission unit or activity	Minimum distance to property boundary
Dryer and baghouse	446 feet (136 meters)
Asphalt cement storage tanks	436 feet (133 meters)
Load-out operations and storage piles	312 feet (95 meters)

2.6 EMISSION LIMITS

2.6.1 Total particulate (filterable plus condensable) emissions from the baghouse exhaust stack shall not exceed 0.020 grains per dry standard cubic foot (gr/dscf) of exhaust gas, corrected to 7% oxygen.

2.6.2 Emissions from any emission unit or fugitive source shall not exceed ten (10) percent opacity as measured by EPA Reference Method 9, Title 40, CFR part 60, Appendix A.

2.6.3 In addition to the emission rates in section 2.2, the following emission rates shall not be exceeded at the baghouse exhaust stack:

Pollutant	Emission rate (lb/hr)
Total Suspended Particulate (TSP)	15.2
Carbon Monoxide (CO)	59.1
Oxides of Nitrogen (NO _x)	24.8
Sulfur Dioxide (SO ₂)	5.0
Total Organic Compounds (TOC)	18.3
Formaldehyde	1.42
Polycyclic Aromatic Hydrocarbons (PAH)	0.0005
Total Metals	0.087

2.7 MONITORING REQUIREMENTS

Central Washington Asphalt shall install and maintain a differential pressure gauge across the baghouse bags, and a reverse air pressure gauge for the baghouse cleaning air.

2.8 FUGITIVE DUST CONTROL

2.8.1 Fugitive dust will be controlled in accordance with a Fugitive Dust Control Plan, to be prepared by the permittee. A Fugitive Dust Control Plan shall be prepared prior to beginning construction. All measures undertaken to mitigate dust generation shall be outlined in the Fugitive Dust Control Plan, and must be available for inspection by Ecology personnel upon request.

2.8.2 Measures shall be taken to mitigate dust generation from storage piles, and during aggregate handling, conveying, and vehicle travel. Stockpiles shall be located to minimize exposure to wind.

2.8.3 The Fugitive Dust Control Plan shall include measures to ensure there is no vehicle track-out onto off-site roads. Plant speed limit shall not exceed ten (10) miles per hour for all vehicles, including asphalt trucks and front end loaders.

2.9 OPERATION AND MAINTENANCE

2.9.1 Central Washington Asphalt shall install and operate the drum dryer, the baghouse, and scavenging system in accordance with the recommended installation, configuration, operation, and maintenance provisions supplied by the units' manufacturers.

2.9.2 The source shall be operated and maintained in accordance with a site-specific operation and maintenance (O&M) manual, to be prepared by the permittee. The O&M manual shall be updated to reflect any modifications to the source or operating procedures. Failure to follow the requirements of the O&M manual, or the adequacy of the O&M manual, may be considered proof that the equipment was not properly operated and maintained. The manual shall reflect standard operating procedures to be followed by all equipment operators, including:

2.9.2.1 Normal operating parameters for the emissions units;

2.9.2.2 A maintenance schedule for the emissions units;

2.9.2.3 Monitoring and record keeping requirements;

2.9.2.4 A description of the monitoring procedures; and

2.9.2.5 Actions for abnormal control system operation.

2.9.3 In accordance with WAC 173-400-101, the O&M manual shall be reviewed and updated by the source owner or operator at least annually. O&M records shall be available for inspection by Ecology, organized in a readily accessible manner, and retained for at least five (5) years.

2.10 TESTING REQUIREMENTS

2.10.1 Within 60 days after achieving the maximum production rate at which the asphalt plant will be operated, but not later than 270 days after initial startup, Central Washington Asphalt shall conduct performance testing for particulate matter, NO_x, CO, total organic compounds (TOC), and opacity.

2.10.2 Additional emissions testing for particulate matter and opacity testing shall be conducted at least every five years thereafter. Ecology reserves the right to require an alternate testing frequency.

2.10.3 All testing shall be conducted when asphalt production is at least 90% of the maximum production rate.

2.10.4 In addition to the performance testing required under conditions 2.10.1 and 2.10.2 above, Central Washington Asphalt shall conduct performance testing for particulate matter, NO_x, CO, TOC, and opacity, and the test results reviewed by Ecology, before any desired amount of RAP can be processed in the drum dryer. This initial source test must demonstrate that no condition of this Order will be violated at that RAP processing rate. The source may vary RAP feed rates during source testing to determine the amount of RAP that demonstrates that the asphalt plant is capable of being operated in compliance with this Order.

2.10.5 Source testing required under condition 2.10.4 may be combined with the initial performance test required under condition 2.10.1. A source test approved by Ecology prior to issuance of this Order, that is not more than five years (5) old, and whose results have not been contradicted by a more recent source test, may be used to demonstrate compliance with condition 2.10.4 provided that the RAP processing rate during that source test represents the anticipated maximum RAP processing rate during normal plant operation.

- 2.10.6 Source testing for particulate matter, NO_x, CO, TOC, and opacity shall be conducted whenever a higher RAP processing rate than the RAP processing rate in the last Ecology-approved source test(s), is desired.
- 2.10.7 All source testing shall be performed by an independent testing firm.
- 2.10.8 Ecology shall be notified, and a test plan shall be submitted for approval by Ecology, at least 30 days prior to any source testing.
- 2.10.9 Written results of all testing shall be submitted to Ecology within 30 days of occurrence.
- 2.10.10 The permittee shall provide adequate sampling ports for the test methods applicable to the source. This includes (i) constructing the air pollution control system(s) such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures, and (ii) providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures.
- 2.10.11 The permittee shall provide safe sampling platforms, safe access to sampling platforms, and utilities for sampling and testing equipment.
- 2.10.12 Testing shall consist of three (3) separate runs using the applicable test method. For the purpose of determining compliance with an applicable emission limit, the arithmetic means of results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances, beyond the permittee's control, compliance may, upon Ecology's approval, be determined using the arithmetic mean of the results of the two other runs.
- 2.10.13 Particulate matter shall be measured by EPA Reference Method 5, Title 40, CFR part 60, Appendix A (filterable particulate matter), and Method 202, Title 40, CFR part 51, Appendix M (condensable particulate matter).
- 2.10.14 CO, NO_x, TOC, and Opacity shall be measured by EPA Reference Methods 10, 7E, 25A, and 9 of Title 40, CFR part 60, Appendix A, respectively.
- 2.10.15 Alternate or equivalent test methods may be requested in writing by the permittee and approved, in writing, by Ecology.

- 2.10.16 When conditions warrant, Ecology may order additional performance testing for any regulated air contaminant, in accordance with EPA or other Ecology approved methods.

2.11 RECORDKEEPING AND REPORTING REQUIREMENTS

Central Washington Asphalt shall maintain sufficient records to enable Ecology to verify that the asphalt plant is operating in compliance with this Order. Records of all data required by this Order shall be maintained in a readily retrievable manner for a period of five (5) years or more, and be made available on-site to authorized representatives of Ecology during any site inspection. At a minimum, Central Washington Asphalt shall maintain the following records:

- 2.11.1 The quantity and specifications of each fuel used in the drum dryer. Records must demonstrate that each supplier's fuel conforms to the specifications for sulfur contained in this Order.
- 2.11.2 Daily asphalt production records showing actual hours of operation of the asphalt plant, amount of asphalt produced, and percentage of RAP in the feed material.
- 2.11.3 Results from all emission testing conducted on the asphalt plant.
- 2.11.4 All air quality complaints received from the public, Ecology, or any other entity. Any complaints resulting from operation of the permitted emission units shall be promptly assessed and addressed. A record shall be maintained of the permittee's action to investigate the validity of the complaint and what, if any, corrective action was taken in response to the complaint. Ecology shall be notified within three (3) days of receipt of any complaint.

2.12 GENERAL CONDITIONS

- 2.12.1 No visible emissions, generated by the source, shall be allowed beyond the property line.
- 2.12.2 All outdoor burning shall be performed according to Chapter 173-425 WAC, Outdoor burning.
- 2.12.3 To the extent practicable, the exhaust stack(s) shall be designed to increase dispersion of exhaust gases by limiting bends, obstructions, non-vertical discharges, and building interference with plume dispersion.
- 2.12.4 Central Washington Asphalt shall take reasonable precautions to prevent off-site odors. The permittee shall not cause or allow the generation of any odor

which may unreasonably interfere with any other property owner's use and enjoyment of their property. The permittee shall use recognized good practice and procedures to reduce all odors to a reasonable minimum. In the event odor becomes a problem, Ecology may order Central Washington Asphalt to take specific measures to control odor. These measures may include, but are not limited to, the curtailment of operations or installation of additional air pollution control devices.

- 2.12.5 This Order shall become invalid if construction is not commenced within 18 months after receipt of final approval, if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time. Ecology may extend the 18-month period upon a satisfactory showing that an extension is justified.
- 2.12.6 It shall be grounds for rescission of this approval if physical operation of the asphalt plant is discontinued for a period of eighteen (18) months or more. Ecology may extend the 18-month period upon a satisfactory showing that an extension is justified.
- 2.12.7 Emissions inventory information and other information may be requested by Ecology. Unless otherwise specified, emissions information requested by Ecology shall be submitted within 30 days of receiving the request.
- 2.12.8 Access to the source by the United States Environmental Protection Agency or the Department of Ecology shall be permitted upon request for the purpose of compliance assurance inspections. Failure to allow access is grounds for revocation of the Order approving the Notice of Construction application.
- 2.12.9 Operation of equipment must be conducted in compliance with all data and specifications submitted as part of the Notice of Construction application unless otherwise approved by Ecology. Any activity undertaken by Central Washington Asphalt, or others, in a manner which is inconsistent with the application or this Order, shall be subject to Ecology enforcement under applicable regulations.
- 2.12.10 An emergency spill plan shall be in place during operation of the asphalt plant, and all operations personnel shall be familiar with this plan. The plan shall be posted at the source. Any petroleum or chemical spills shall be reported immediately to the Department of Ecology, Central Regional Office, at (509) 575-2490.
- 2.12.11 Nothing in this Order shall be construed so as to relieve the permittee of its obligations under any state, local, or federal laws or regulations.

- 2.12.12 It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Order.
- 2.12.13 Legible copies of this Order, the O&M manual, and the Fugitive Dust Control Plan shall be on-site in a location known by and available to employees in direct operation of the described equipment, and available to Ecology upon request.
- 2.12.14 This Order is valid only after payment of appropriate fee(s) required pursuant to WAC 173-455-120.

All plans, specifications and other information submitted to the Department of Ecology relative to this project and further documents and any further authorizations or approvals or denials in relation thereto shall be kept at the Central Regional Office of the Department of Ecology in the “Air Quality Controlled Sources” files and by such action shall be incorporated herein and made a part hereof.

Nothing in this approval shall be construed as obviating compliance with any requirement of law other than those imposed pursuant to the Washington Clean Air Act and rules and regulations thereunder. Any violation of such rules and regulations or of the terms of this approval shall be subject to the sanctions provided in Chapter 70.94 RCW.

Authorization may be modified, suspended or revoked in whole or part for cause, including, but not limited to, the following:

- I. Violation of any terms or conditions of this authorization;
- II. Obtaining this authorization by misrepresentation or failure to disclose fully all relevant facts.

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

APPEAL INFORMATION:

You have a right to appeal this permit. To appeal this you must:

- File your appeal with the Pollution Control Hearings Board within 30 days of the “date of receipt” of this document. Filing means actual receipt by the Board during regular office hours.
- Serve your appeal on the Department of Ecology within 30 days of the “date of receipt” of this document. Service may be accomplished by any of the procedures identified in WAC 371-08-305(10). “Date of receipt” is defined at Revised Code of Washington (RCW) 43.21B.001(2).

Be sure to do the following:

- Include a copy of (1) the permit you are appealing and (2) the application for the permit.
- Serve and file your appeal in paper form; electronic copies are not accepted.

1. To file your appeal with the Pollution Control Hearings Board

Mail appeal to:

The Pollution Control Hearings Board
PO Box 40903
Olympia, WA 98504-0903

OR

Deliver your appeal in person to:

The Pollution Control Hearings Board
4224 – 6th Ave SE Rowe Six, Bldg 2
Lacey, WA 98503

2. To serve your appeal on the Department of Ecology

Mail appeal to:

The Department of Ecology
Appeals Coordinator
P.O. Box 47608
Olympia, WA 98504-7608

OR

Deliver your appeal in person to:

The Department of Ecology
Appeals Coordinator
300 Desmond Dr SE
Lacey, WA 98503

3. And send a copy of your appeal to:

Susan Billings
Department of Ecology
Central Regional Office
15 West Yakima Avenue, Suite 200
Yakima, Washington 98902-3452

For additional information, visit the Environmental Hearings Office Website:

<http://www.eho.wa.gov>

*To find laws and agency rules, visit the Washington State Legislature Website:
<http://www1.leg.wa.gov/CodeReviser>*

DATED at Yakima, Washington this 4th day of September, 2008.

Prepared By:

Proposed Decision
David Ogulei, Ph.D.
Air Quality Engineer
Department of Ecology

Reviewed By:

Proposed Decision
Lynnette A. Haller, P.E.
Air Quality Engineer
Department of Ecology

Approved By:

Proposed Decision
Susan M. Billings
Air Quality Section Manager
Department of Ecology

PROPOSED