

BEFORE THE STATE OF WASHINGTON  
ENERGY FACILITY SITE EVALUATION COUNCIL

In the Matter of:

COLUMBIA GENERATING STATION

COUNCIL ORDER No. 837

Order on Request to Conduct Painting and  
Blasting Operations to Support  
Maintenance Activities at the Columbia  
Generating Station

**Regulatory Authority:**

Pursuant to the Energy Facility Site Evaluation Council (EFSEC) *General and operating permit regulations for air pollution sources*, Chapter 463-78 Washington Administrative Code (WAC), *General and operating permit regulations for air pollution sources*, Chapter 173-400 WAC, and *Controls for New Sources of Toxic Air Pollutants*, Chapter 173-460 WAC, EFSEC now finds the following:

**Findings:**

1. Energy Northwest proposes to modify their existing facility located in Richland, Washington.
2. A Notice of Construction (NOC) application was submitted on January 26, 2008. The application was found to be complete on February 2, 2009.
3. The proposed project consists of installation and operation of an abrasive blasting cabinet, abrasive blasting booth, and painting booth within Building 69 of the Energy Northwest Industrial Development Complex (IDC).
4. The Energy Northwest IDC is located in a Class II Area designated as "attainment" for the purpose of NOC permitting for all pollutants.
5. Emissions of criteria pollutants from the proposed project are below the Prevention of Significant Deterioration Significant Emission Rates.
6. Criteria air pollutant emissions from the proposed project are below the *de minimis* levels in WAC 173-400-110(5)(d).
7. Toxic Air Pollutants (TAPs) from the proposed project are below the Small Quantity Emission Rates (SQERs) of WAC 173-460-080(2)(e).
8. Best Available Control Technology (BACT) and Toxics-Best Available Control Technology (T-BACT) for this project has been determined, by pollutant, to be:
  - a. Particulate matter and TAP particles –

- i. Commercial filtration of exhausts from enclosed paint and blasting booths and blasting cabinet.
    - ii. Coating application by hand or using high-efficiency airless sprayers to minimize overspray.
  - b. Volatile organic compounds (VOC) and volatile TAPs –
    - i. Use of low-VOC content coatings as appropriate for substrate material use and protection.
    - ii. Coating application by hand or using high-efficiency airless sprayers to minimize overspray.
    - iii. Housekeeping procedures minimizing coating and cleaning solvent losses.
- 9. The proposed project, if constructed and operated as herein required, will provide T-BACT.
- 10. The proposed project, if 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 as incorporated by reference in Chapter 463-78-005 WAC, and the operation thereof will not result in ambient air quality standards being exceeded.
- 11. The project will have no significant impact on air quality.

**THEREFORE, IT IS ORDERED** that the project as described in said Notice of Construction application, and as detailed in emissions estimates and impact and control technology assessments submitted to EFSEC in reference thereto, is approved for construction, installation, and operation, provided compliance with the conditions and restrictions described below. This ORDER shall be identified as ORDER No. 837.

## 1.0 GENERAL APPROVAL CONDITIONS

### 1.1 Effective Date

The effective date of this authorization shall be that as signed in Section 4.0. All references to procedures or test methods shall be to those in effect as of the effective date of this ORDER.

### 1.2 Emission Limits

- 1.2.1 Visible emissions from blasting operations will not exceed 20 percent [WAC 173-400-040(1)].
- 1.2.2 Emissions of particulate matter (PM) will not exceed 0.75 tons per year [WAC 173-400-110(5)(d)].
- 1.2.3 Emissions of volatile organic compounds (VOC) will not exceed 2.0 tons per year [WAC 173-400-110(5)(d)].
- 1.2.4 Emissions of toxic air pollutants (TAPs), as identified within Table 1, will not exceed SQERs of WAC 173-460-080(2)(e).

Table 1: Project TAP SQERs

Pollutant	Chemical Abstracts Service Registry Number	SQER

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Pollutant	Chemical Abstracts Service Registry Number	SQER
Ethyl benzene	100-41-4	5 lb/hr
Methylene bis(phenyl isocyanate)	101-68-8	0.02 lb/hr
Butane	106-97-8	5 lb/hr
Propylene glycol monomethyl ether	107-98-2	5 lb/hr
Toluene	108-88-3	5 lb/hr
Phenol	108-95-2	5 lb/hr
2-Butoxyethanol	111-76-2	5 lb/hr
Diacetone alcohol	123-42-2	1.2 lb/hr
n-Butyl acetate	123-86-4	5 lb/hr
Iron oxide fume, Fe <sub>2</sub> O <sub>3</sub> as Fe	1309-37-1	0.2 lb/hr
Xylenes (m-,o-,p-isomers)	1330-20-7	5 lb/hr
Carbon black	1333-86-4	5 lb/hr
lb/hr Trimethyl benzene	2551-13-7	5 lb/hr
Acetone	67-64-1	5 lb/hr
Aluminum, as AL metal dust	7429-90-5	0.6 lb/hr
Chromium (metal)	7440-47-3	0.2 lb/hr
Methyl ethyl ketone (MEK)	78-93-3	5 lb/hr
VM & P Naphtha	8032-32-4	5 lb/hr
Hexamethylene Isocyanate	822-06-0	0.02 lb/hr
Naphthalene	91-20-3	2.6 lb/hr
Nickel and compounds	C7440-02-0	0.5 lb/yr

### 1.3 Compliance Demonstration

- 1.3.1 Compliance with Approval Condition 1.2.1 will be met by compliance with visible emissions survey requirements of Approval Condition 3.0.
- 1.3.2 Compliance with Approval Condition 1.2.2 shall be demonstrated by installation, maintenance, and operation by:
  - 1.3.2.1 Bag or cartridge filtration of blasting booth and cabinet exhausts.
  - 1.3.2.2 Commercial paint arrestor filtration of paint booth exhaust.
  - 1.3.2.3 Retention of usage and material composition records detailed in Approval Condition 2.2.
  - 1.3.2.4 Application of coatings in compliance with BACT/T-BACT as determined in this ORDER with the exception that air-sprayed coatings may be applied to minor portions of substrate equipment when the surface configuration prohibits adequate coating by hand or airless sprayer.
- 1.3.3 Compliance with Approval Condition 1.2.3 shall be demonstrated by:
  - 1.3.3.1 Application of T-BACT compliant low-VOC coatings.
  - 1.3.3.2 Retention of usage and material composition records detailed in Approval Condition 2.2.
  - 1.3.3.3 Annual calculation of VOC mass in accord with usage and material composition records.

1.3.3.4 Application of coatings in compliance with BACT/T-BACT as determined in this ORDER.

- 1.3.4 Compliance with Approval Condition 1.2.3 shall be demonstrated by:
- 1.3.4.1 Retention of usage and material composition records detailed in Approval Condition 2.2.
  - 1.3.4.2 Annual speciated calculation of TAP mass in accord with usage and material composition records.

#### 1.4 Manuals

Operations and Maintenance (O&M) manuals for all equipment, procedures, and controls associated with the proposed activities that have the potential to affect emissions to the atmosphere shall be followed. Manufacturer's instructions may be referenced. The O&M manuals shall be updated to reflect any modifications of the process or operating procedures. Copies of the O&M manuals shall be available to Ecology upon request.

## 2.0 NOTIFICATIONS AND SUBMITTALS

### 2.1 Addressing

Any required notifications and submittals required under these Approval Conditions shall be sent to:

Energy Facility Site Evaluation Council  
P.O. Box 43172  
Olympia, Washington 98504-3172

### 2.2 Recordkeeping

Specific records shall be kept on the Hanford Site by the Permittee and made available for inspection by EFSEC or Ecology upon request. The records shall be organized in a readily accessible manner and cover a minimum of the most recent 60-month period. The records to be kept shall include the following:

1. Visible emission event surveys when required by Approval Condition 1.3.1.
2. Logs of annual coating product and solvent usage quantities.
3. Material Safety Data Sheets, or other appropriate material specific documentation, detailing coating product composition regarding contributions to TAP and VOC emissions.
4. Identification of any TAP emission not previously identified within the Notice of Construction Application emissions estimates or subsequent notices shall be recorded within coating and solvent usage logs.
5. Calculations of VOC and speciated TAP emissions required by Approval Conditions 1.3.3.3 and 1.3.4.2.
6. Paint booth and blasting booth and cabinet filter maintenance or replacement records.

## 2.3 Reporting

Emission of any TAP exceeding SQERs detailed in Table 1 or excess visible emissions determined through United States Environmental Protection Agency Method 9 (40 Code of Federal Regulations, Part 60, Appendix A, Method 9) observation shall be reported to EFSEC in accord with WAC 173-400-107.

## 3.0 EMISSION MONITORING

A visible emission (VE) survey of blasting booth exhaust shall be conducted weekly, when operating, for a period of three months. If VEs from the blasting booth operations are observed for more than 10 consecutive minutes, an attempt to identify the cause(s) of the VEs will be made and those results recorded. The recorded entry will also identify any corrective actions taken and the likely frequency of a future reoccurrence. If the event reoccurs following corrective action, a determination of opacity will be made using the United States Environmental Protection Agency Method 9 (40 Code of Federal Regulations, Part 60, Appendix A, Method 9). If weekly VE surveys do not demonstrate emissions in excess of Approval Condition 1.2.1, the VE survey frequency will reduce to once every three months for a period of six months. After nine months of no excess visible emissions, visible emission surveys will be performed only when visible emissions are observed during normal operation of the blasting booth.

## 4.0 APPROVAL ORDER AND RESTRICTIONS

Operation of the subject blasting and coating shall be within IDC Building 69.

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

1. Violating any terms or conditions of this authorization.
2. Obtaining this authorization by misrepresentation, or failure to fully disclose all relevant facts.

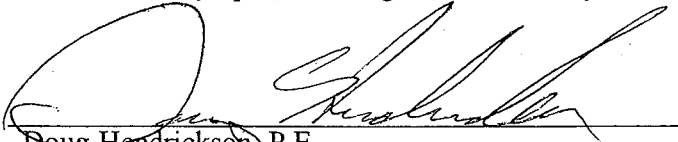
The provisions of this authorization are severable. If any provision of this authorization, or application of any provisions of this authorization, to any circumstance is held invalid, the application of such provision to their circumstances and the remainder of this authorization shall not be affected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

Any person aggrieved by this ORDER may obtain review thereof by application, within 30 days of receipt of this ORDER, to:

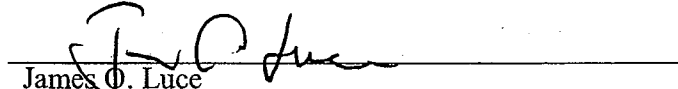
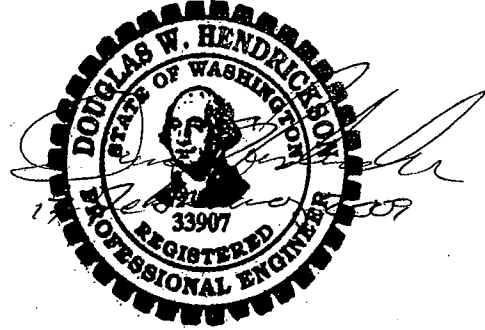
Energy Facility Site Evaluation Council  
P.O. Box 43712  
Olympia, Washington 98504-3172

These procedures are consistent with the provisions of Chapter 43.21B Revised Code of Washington, and the rules and regulations adopted thereunder.

DATED at Olympia, Washington, this 11<sup>th</sup> day of February 2009.



Doug Hendrickson, P.E.  
Washington State Department of Ecology



James O. Luce  
EFSEC Chair

ATTEST:



Allen Fiksdal  
EFSEC Manager