



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

1315 W. 4th Avenue • Kennewick, Washington 99336-6018 • (509) 735-7581

January 15, 2002

Mr. Joel Hebdon, Director
Regulatory Compliance and Analysis Division
United States Department of Energy
Richland Operations Office
P.O. Box 550
Richland, Washington 99352

RECEIVED
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EDMC

Dear Mr. Hebdon:

Re: Non-radioactive Air Emissions Notice of Construction (NOC) Application for 300
Area Standby Power Project

Enclosed is Order No. DE 02NWP-001. If you have any questions concerning the content of the document, please contact Jerry Hensley at (509) 736-3017. The enclosed Order may be appealed. The appeal procedures are described in the Order.

Sincerely,

Michael Wilson
Program Manager,
Nuclear Waste Program

MW:JH:nc
Enclosure

cc: Astrid Larsen, USDOE-RL
Jeffrey Hertzell, FH
Owen Kramer, FH
Eileen Murphy-Fitch, FH
Al Conklin, WDOH
Rick Gay, CTUIR
Pat Sobotta, NPT

Ken Niles, Oregon Energy
Administrative Record, LMSI
Environmental Portal, LMSI

**STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY**

IN THE MATTER OF APPROVING A NON-)
RADIOACTIVE AIR EMISSIONS NOTICE)
OF CONSTRUCTION APPLICATION FOR)
INSTALLATION AND OPERATION OF)
EMERGENCY DIESEL GENERATORS)
IN THE 300 AREA OF HANFORD FOR THE)
DEPARTMENT OF ENERGY-RICHLAND)

NOC APPROVAL ORDER
NUMBER: DE02NWP-001

To: Mr. Joel Hebdon, Director
Regulatory Compliance and Analysis Division
United States Department of Energy
Richland Operations Office
P.O. Box 550, MSIN: A2-15
Richland, Washington 99352

FINDINGS:

On November 21, 2001, the United States Department of Energy, Richland (DOE-RL), submitted a Notice of Construction (NOC) application for non-radioactive air emissions for the installation and operation of three emergency diesel generators located in the Hanford site's 300 Area.

In relation to the above, the Department of Ecology, (Ecology) State of Washington, pursuant to RCW 70.94.152, WAC 173-400, and WAC 173-460 makes the following determinations:

- The facility, if operated as herein required, will be in accordance with applicable rules and regulations, as set forth in Chapter 173-400 WAC and 173-460 WAC, and the operation thereof will not result in ambient air quality standards being exceeded. Information submitted in the NOC shows emissions will be below the threshold levels contained in WAC 173-400-110(5)(d), allowing exemption of the proposed activities from New Source Review under WAC 173-400-110.
- The proposed project, if constructed and operated as herein required, will provide all known, available, and reasonable methods of emission control.

1. LAWS AND REGULATIONS

All proposed activities associated with the installation and operation of the emergency diesel generators in buildings 325, 3709A, and 331 by DOE-RL, referred herein to as the permittee, shall comply with all requirements as specified in:

- RCW Chapter 70.94, Washington Clean Air Act

- WAC Chapter 173-400, General Regulations for Air Pollution Sources
- WAC Chapter 173-460, Controls for New Sources of Toxic Air Pollutants

2. EMISSIONS

Operation of the proposed emergency diesel generators at the specified sites will generate the following estimated emissions of criteria and toxic air pollutants:

Primary Pollutant	Maximum Annual Emissions 10 Days/240 Hours (tons/yr)
NOx	1.7484
CO	0.0660
VOCs	0.0136
PM	0.0816
SOx	0.4656

3. **BACT** -- WAC 173-400-113 requires the use of Best Available Control Technology (BACT) to control emissions. Since emissions will be below the threshold levels contained in WAC 173-400-110(5)(d), no additional technology controls are warranted.
4. **T-BACT** -- WAC 173-460-040(4)(b) requires the use of Best Available Control Technology for Toxics (T-BACT) to control toxic emissions. Since all emissions resulting from the proposed operations are in compliance with the WAC 173-460 acceptable source impact levels (ASILs), no additional controls are warranted.

ADDITIONAL FINDINGS

Johnson Controls, Inc. will install emergency diesel generator units at three buildings on the Hanford Site, in the 300 Area, near Richland, Washington: Building 325, Building 3709A, and Building 331. Two of the generators are each rated at 500 kW (approximately 670 horsepower) and the third is rated at 20 kW (approximately 27 horsepower).

1. PROCESS DESCRIPTION

The proposed action is to install new diesel-generator standby power units at Buildings 325, 3709A and 331. For each of the diesel-generator standby power units, the proposed action includes excavating and building a pad to support the weight of the unit, installing underground electrical conduit, and upgrading the automatic transfer switch and control wiring needed to activate the unit when the primary source of power is interrupted.

It is anticipated that the generators will only operate during short term power interruptions, and for a few hours each year for operational readiness testing. Cumulative operation of all three generators is not expected to exceed 240 hours per year (10 days). Based on vendor-reported information, each unit is capable of operating at full load for at least 8 hours on one full tank load of # 2 Diesel Fuel (350 gallon capacity tank for the 500 kW unit, 60 gallon capacity tank for the 20 kW unit) so maximum fuel consumption will be less than 48 gallons per unit hour of operation.

2. VENTILATION AND EMISSIONS CONTROL SYSTEMS

Although no pollution control systems are present on the units, the generators are designed to operate efficiently with low emissions. The generators will be maintained according to the manufacturer's recommendations to ensure efficient operations. SOx emissions will be controlled through use of # 2 Diesel Fuel with a sulfur content within the range of 0.2% to 0.5%.

3. AIRBORNE EMISSIONS MONITORING SYSTEMS

The emergency generators are not factory-equipped with airborne emissions monitoring systems. Methods for monitoring the emissions from these generators include visual observations, and maintaining records of the hours of operation and the amount of fuel consumed.

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:

APPROVAL CONDITIONS:

1. EMISSIONS CONTROL

SOx emissions will be controlled through use of # 2 Diesel Fuel with a sulfur content within the range of 0.2% to 0.5%.

2. TOTAL EMISSION LIMITS

- A.** The activities described in the Notice of Construction application will be permitted without additional control technologies required, provided that the total emissions from all activities will not result in exceedance of WAC 173-460 ASILs.
- B.** A new Notice of Construction will be required, if total emissions of toxic air pollutants exceed the Small Quantity Emission Rates, unless dispersion modeling demonstrates that emissions would continue to result in concentrations less than the ASILs. Results of any

such dispersion modeling demonstrations/calculations will be maintained on file and made available upon inspection.

- C. A new NOC also is required if total emissions of criteria pollutants would exceed the WAC 173-400-110 thresholds.

3. EMISSION CONTROL MONITORS

No sampling is required for non-radioactive air emissions because all contaminant emissions are below their respective small quantity emission rates.

4. MANUALS

O&M manuals for all equipment associated with the proposed activities that have the potential to affect emissions to the atmosphere shall be developed and followed. Manufacturers' instructions may be referenced. The O&M manuals shall be updated to reflect any modifications of the process or operating procedures. Emissions that result from failure to follow the requirements of the O&M Manuals or manufacturer's instructions may be considered proof that the equipment was not properly operated, maintained, and tested. Copies of the O&M Manuals shall be available to Ecology upon request.

5. INITIAL NOTIFICATIONS & SUBMITTALS

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

Washington State Department of Ecology
Nuclear Waste Program
1315 West Fourth Avenue
Kennewick, Washington 99336-6018

6. MONITORING and RECORDKEEPING

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

- A. Maintain records of the hours of operation.
- B. Maintain records the amount of fuel consumed.

7. GENERAL CONDITIONS

- A. **Commencing/Discontinuing Construction and/or Operations:** This approval shall become void if the proposed activities are not commenced within eighteen (18) months after receipt of this Order approving the NOC application, or if activities are discontinued for a period of eighteen (18) months.
- B. **Compliance Assurance Access:** Access to the source by EPA or Ecology shall be allowed for the purposes of compliance assurance inspections. Failure to allow access is grounds for revocation of the Order approving the NOC.
- C. **Modification to Facility or Operating Procedures:** Any modification to any equipment or operating procedures, contrary to information in the NOC application, shall be reported to Ecology at least sixty (60) days before such modification. Such modification may require a new, or amended, NOC approval Order.
- D. **Activities Inconsistent with this Order:** Any activity undertaken by the Permittee or others, in a manner that is inconsistent with the NOC application, and this determination, shall be subject to Ecology enforcement under applicable regulations.
- E. **Obligations under Other Laws or Regulations:** Nothing in this Order shall be construed to relieve the Permittee of its obligations under any local, state, or federal laws, or regulations.
- F. 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.
- G. A two (2) month testing and break-in period is allowed, after any part or portion of this project becomes operational, to make any changes or adjustments required to comply with applicable rules and regulations pertaining to air quality and conditions of operation imposed herein. Thereafter, 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:

1. Violation of any terms or conditions of this authorization;
2. 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 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 feeling aggrieved by this ORDER may obtain review thereof by application, within thirty (30) days of receipt of this ORDER, to:

Pollution Control Hearings Board
P.O. Box 40903
Olympia, Washington 98504-0903

Concurrently, copies of the application must be sent to:

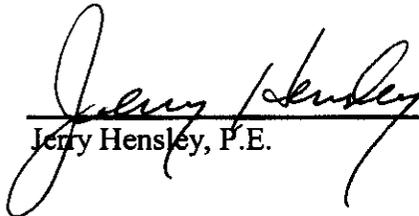
Washington State Department of Ecology
P.O. Box 47600
Olympia, Washington 98504-7600

Washington State Department of Ecology
1315 West Fourth Avenue
Kennewick Washington 99336-6018

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

DATED at Kennewick, Washington, this 9th day of January 2002.

PREPARED AND REVIEWED BY:



Jerry Hensley, P.E.

APPROVED BY:



Michael A. Wilson