

STATE OF WASHINGTON
ENERGY FACILITY SITE EVALUATION COUNCIL
P. O. BOX 43172
OLYMPIA, WASHINGTON 98504-3172

In the Matter of:

COLUMBIA GENERATING STATION

COUNCIL ORDER No. 874

Order to Manage and Regulate Fugitive Radionuclide Emissions from the Evaporation Pond Wastewater Treatment System.

Regulatory Authority:

Pursuant to the Revised Code of Washington (RCW) 70.94.331, 70.94.422, Chapter 80.50 RCW, Washington Administrative Code (WAC) 463-78-070, and Chapter 246-247 WAC, the Energy Facility Site Evaluation Council (EFSEC) now finds the following:

Findings:

1. Energy Northwest (EN) is the operator of the Columbia Generating Station (CGS), an electric generating plant located on the Hanford Site in Benton County, Washington.
2. CGS has an evaporation pond wastewater treatment system.
3. The evaporation pond wastewater treatment system has the potential to emit fugitive radionuclide emissions, and therefore, is required to obtain a Radioactive Air Emissions License in accordance with Chapter 246-247 WAC Radiation Protection-Air Emissions Regulation.
4. The evaporation pond wastewater treatment system's potential to emit fugitive radionuclides has been determined to be at levels agreed to by EN and EFSEC.

Order:

THEREFORE, IT IS ORDERED by EFSEC in relation to the above that EN's CGS evaporation pond wastewater treatment system be operated subject to the conditions described below.

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Order to Regulate Fugitive Radionuclide Emissions from the
Evaporation Pond Wastewater Treatment
System.*

1.0 GENERAL APPROVAL CONDITIONS

1.1 Effective date

The effective date of this authorization shall be that as signed in Section 3.0. All references to procedures or test methods shall be those in effect as of the effective date of this ORDER.

2.0 OPERATIONAL LIMITATIONS AND ADDITIONAL REQUIREMENTS

2.1 Emission Unit Description

Emission Unit ID: 1415

Notice of Construction (NOC) ID: 928

This emission unit consists of five evaporation ponds that will be used to collect and evaporate stormwater and process wastewater (industrial wastewater).

This is a MINOR, FUGITIVE, non-point source emission unit.

2.2 Abatement Technology

Best available radionuclide control technology (BARCT)
WAC 246-247-040(3), -040(4)

State-only Enforceable: WAC 246-247-010(4), -040(5), -060(5)

Abatement Technology: None

2.3 Monitoring Requirements

2.3.1 State Enforceable: WAC 246-247-040(5), -060(5)

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
WAC 246-247-075(5)	WAC 246-247-075(5)	H-3, Gamma Isotopic Analysis	Monthly Water Sample, Annual Sediment Sample

2.3.2 Monthly composite water samples and annual sediment samples will be taken for the evaporation ponds 3 and 4. Annual water samples will be taken for evaporation ponds 1A, 1B, and 2.

- 2.3.3 Sampling will be conducted through monthly composite water samples for evaporation ponds 3 and 4 taken from sampling station ST-101 (or equivalent sampling station). Annual water samples will be taken from evaporation ponds 1A, 1B, and 2. Water samples will be analyzed for tritium and gamma isotopic analysis. WAC 246-247-075 (3) & (5)(a).
- 2.3.4 Sediment sampling will be taken annually for evaporation ponds 3 and 4 and analyzed for gamma emitters. WAC 246-247-075 (3) & (5)(a).
- 2.4 Conditions (state only enforceable): WAC 246-247-040(5), 060(5) if not specified
- 2.4.1 The total abated emission limit for this Notice of Construction is limited to 9.51E-02 mrem/year to the Maximally Exposed Individual (WAC 246-247-040(5)). The total limit on the Potential-To-Emit for this Notice of Construction is limited to 9.51E-02 mrem/year to the Maximally Exposed Individual (WAC 246-247-030(21)).
- 2.4.2 The Columbia Generating Station Stormwater and Industrial Wastewater Facility will consist of five evaporation ponds that will be used to collect and evaporate stormwater and process wastewater (industrial wastewater). The stormwater and process wastewater that will be directed to the evaporation ponds include potable water filtered plant backwash, reverse osmosis filtrate, and fire test water, which will be directed to three of the ponds (ponds 1A, 2B, and 2). The second two ponds (ponds 3 and 4) will collect and evaporate the stormwater from CGS roof drains, floor drains, building air wash, equipment dewatering, leakage, cleaning, and flushing.
- 2.4.4 The Annual Possession Quantity is limited to the following radionuclides (Curies/year):

Parameter	Limit (Curies/year)
Co-58	3.20E-02
Co-60	9.90E-01
Cr-51	6.70E-02
Cs-137	1.00E-02
H-3	5.63E+00
Mn-54	1.80E-02
Sr-89	6.30E-01
Sr-90	3.80E-02
Zn-65	3.44E+00

2.4.5 ANNUAL REPORTING: Radionuclide emissions will be determined in accordance with the Offsite Dose Calculation Manual and report in the annual radioactive air emissions report due June 30th for the previous year. WAC 246-247-075 (5)(a).

3.0 APPROVAL ORDER AND RESTRICTIONS

Any application form, report, or compliance certification submitted pursuant to this Order shall contain certification by a responsible official of truth, accuracy, and completeness.

Nothing in this Order alters the facility's obligation to comply with other laws, including air laws and regulations. Any violation of such rules and regulations or of the terms of this approval, including but not limited to exceedances of emissions limits demonstrated by source testing or emissions calculations, shall be subject to the sanctions provided in Chapter 80.50 RCW.

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 other circumstances, and the remainder of this authorization, shall not be affected thereby.

This Order is subject to judicial review pursuant to the Administrative Procedure Act, Chapter 34.05 RCW. The Administrative Procedure Act can be found on-line at: <http://apps.leg.wa.gov/rcw/default.aspx?cite=34.05>.

DATED at Olympia, Washington this 21 day of January, 2015.

FOR THE WASHINGTON STATE ENERGY FACILITY SITE EVALUATION COUNCIL.

_____/s/_____
William Lynch
EFSEC Chairman

ATTEST:

_____/s/_____
Stephen Posner
EFSEC Manager

_____/s/_____
John Martell
WDOH

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