

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.

*Council Order No. 874, Columbia Generating Station,  
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 30<sup>th</sup> 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.

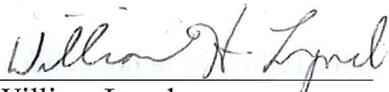
Nothing in this Order alters the facility's obligation to comply with other laws, including air laws and regulations. Any violation of such rules and regulations or of the terms of this approval, including but not limited to exceedances of emissions limits demonstrated by source testing or emissions 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>.

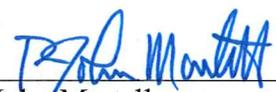
DATED at Olympia, Washington this 21 day of January, 2015.

FOR THE WASHINGTON STATE ENERGY FACILITY SITE EVALUATION COUNCIL.

  
William Lynch  
EFSEC Chairman

ATTEST:

  
Stephen Posner  
EFSEC Manager

  
John Martell  
WDOH

*Council Order No. 874, Columbia Generating Station,  
Order to Regulate Fugitive Radionuclide Emissions from the  
Evaporation Pond Wastewater Treatment  
System.*



STATE OF WASHINGTON

ENERGY FACILITY SITE EVALUATION COUNCIL

PO Box 43172 • Olympia, Washington 98504-3172

DETERMINATION OF NONSIGNIFICANCE

**Description of proposal:** Energy Northwest (EN) is proposing to construct and operate a wastewater treatment system at its Columbia Generating Station (CGS) facility. The treatment system will consist of (4) shallow ponds totaling approximately 13 acres that will be used to collect and evaporate stormwater that falls on the CGS plant buildings as well as various other wastewater streams that are presently directed to Outfall 002 via the storm drainage system. The proposed treatment system will result in elimination of several existing stormwater and process wastewater discharges to ground water. The state Departments of Ecology and Health have reviewed the engineering report and SEPA checklist prepared for the proposal and recommend EFSEC approval of the proposed project. The proposed treatment system is not required by the current National Pollutant Discharge Elimination System (NPDES) Permit No. WA-002515-1, however, the draft permit will incorporate applicable monitoring and operations and maintenance requirements.

**Proponent:** Energy Northwest

**Location of proposal, including street address, if any:** CGS is located in Benton County, Washington, 12 miles northwest of Richland, Washington. The CGS site is located in Section 5 of Township 11 north, Range 28 east, Willamette Meridian, on land leased from the DOE within the Hanford Site. Physical Address: 76 North Power Plant Loop, Richland, WA 99354.

**Lead agency:** Energy Facility Site Evaluation Council

The lead agency for this proposal has determined that it does not have a probable significant adverse impact on the environment. An environmental impact statement (EIS) is not required under RCW 43.21C.030 (2)(c). This decision was made after review of a completed environmental checklist and other information on file with the lead agency. This information is available to the public on request.

There is no comment period for this DNS. This proposal is not applicable to any of the criteria in RCW 197-11-340(2)(a) that triggers the requirement for public comment.

This DNS is issued after using the optional DNS process in WAC 197-11-355. There is no further comment period on the DNS.

This DNS is issued under WAC 197-11-340(2); the lead agency will not act on this proposal for 14 days from the date below. Comments must be submitted by .....

Responsible official: Stephen Posner

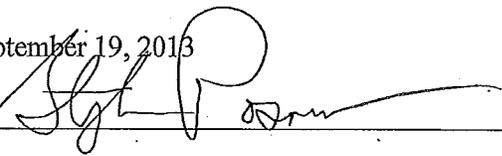
Position/title: Interim EFSEC Manager

Phone: 360-664-1903

Address: PO Box 43172, Olympia WA, 98504-3172

Date: September 19, 2013

Signature

A handwritten signature in black ink, appearing to read "Stephen Posner", written over a horizontal line. The signature is stylized and cursive.

## ADDENDUM



STATE OF WASHINGTON

**ENERGY FACILITY SITE EVALUATION COUNCIL**

*PO Box 43172 • Olympia, Washington 98504-3172*

January 8, 2015

**ADDENDUM TO  
DETERMINATION OF NONSIGNIFICANCE  
Dated September 19, 2013**

**ENERGY NORTHWEST  
COLUMBIA GENERATING STATION**

Energy Northwest provided a SEPA checklist to EFSEC on September 10, 2013 for a wastewater treatment system (Project) at the Columbia Generating Station. EFSEC issued a determination of nonsignificance (DNS) on September 19, 2013. The 2013 checklist did not address the need for a fugitive radionuclides emissions license. The Project has the potential to emit fugitive radionuclide emissions, and therefore, is required to obtain a Radioactive Air Emissions License in accordance with Washington Administrative Code (WAC) Chapter 246-247. EFSEC is issuing this addendum to address the issuance of the license and to supplement the DNS issued on September 19, 2013.

Responsible Official: Stephen Posner

Position/Title: EFSEC Manager

Phone: 360-664-1903

Address: PO Box 43172, Olympia, WA 98504-3172

Date: January 8, 2015

Signature