



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

May 18, 2022

Mr. Robert Schuetz
Chief Executive Officer
Energy Northwest
76 North Power Plant Loop
P.O. Box 968 (Mail Drop 1023)
Richland, WA 99352-0968

SUBJECT: COLUMBIA GENERATING STATION – CORRECTION REGARDING APPROVAL FOR ALTERNATE DISPOSAL PROCEDURES FOR THE CONTINUED ONSITE DISPOSAL OF COOLING TOWER AND SPRAY POND SLUDGE IN THE EXISTING SEDIMENT DISPOSAL AREA (EPID L-2020-LLL-0031)

Dear Mr. Schuetz:

By letter dated March 11, 2022 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML22004A185), the U.S. Nuclear Regulatory Commission (NRC) issued an approval for alternate disposal procedures for the continued onsite disposal of cooling tower and spray pond sludge in the existing sediment disposal area at the Columbia Generating Station (Columbia). This approval was in response to Energy Northwest's request, dated December 21, 2020 (ML20356A172), as supplemented by letter dated June 23, 2021 (ML21174A151).

Following the issuance of the approval, the NRC staff discovered an error in the safety evaluation (SE). The last paragraph of section 3.4.1, Dose Assessment, on page 8 of the SE, defines the contaminated area as being 45,000 m². The correct value for the contaminated area is 4,500 m², which is a rounded up conservative value based on a total area of 4,459 m² for the sediment disposal, as identified in table 3, "Disposal Area Dimensions," in section 3.1.5, Disposal Area, of the SE.

This correction does not impact the calculated dose and has no impact on the decision to approve the subject Title 10 of the *Code of Federal Regulations* Section 20.2002 onsite disposal request. The enclosure to this letter contains a revised page 8 of the SE.

R. Schuetz

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The NRC staff regrets any inconvenience this may have caused. If you have any questions regarding this matter, I may be reached at (301) 415-8371 or via email at Mahesh.Chawla@nrc.gov.

Sincerely,

/RA/

Mahesh L. Chawla, Project Manager
Plant Licensing Branch IV
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-397

Enclosure:
Corrected page 8 of
the SE

cc: Listserv

ENCLOSURE

CORRECTED PAGE 8 OF THE SAFETY EVALUATION

REGARDING

APPROVAL FOR ALTERNATE DISPOSAL PROCEDURES FOR THE CONTINUED ONSITE

DISPOSAL OF COOLING TOWER AND SPRAY POND SLUDGE IN THE EXISTING

SEDIMENT DISPOSAL AREA

ENERGY NORTHWEST

COLUMBIA GENERATING STATION

DOCKET NO. 50-397

groundwater, which is known to be contaminated with tritium, in the vicinity of the sediment disposal site. The location of Columbia, within the boundaries of the Hanford site, and the use of the Columbia River as the primary water source for the area further supports the exclusion of these exposure pathways. Although inhalation of resuspended radionuclides is a known exposure pathway, doses calculated using RESRAD, Version 5.19, using the maximum disposal concentrations confirm that it is not a significant risk. The licensee also used RESRAD, Version 5.19, to confirm that doses to the maximally exposed individual will decline following closure of the sediment disposal area.

In addition to the analyses provided by EN, NRC staff also considered prospective doses to average members of the public who may come into contact with the sediment disposal area in the future. Although the area immediately surrounding Columbia is currently considered industrial and there are public access restrictions due to Hanford related activities, agriculture was a primary activity in the area prior to the establishment of the Hanford site and is still a prominent activity in the area. NRC staff also noted that many areas along the Columbia River in the vicinity of Columbia and the Hanford site are being redeveloped into residential neighborhoods. Considering these land uses, NRC staff performed a bounding dose analysis using RESRAD-ONSITE, Version 7.2, to assess the dose to an individual residing and farming on the sediment disposal area in the future. This conservative land-use scenario considered the exposure pathways associated with a residential farmer scenario, the average radionuclide concentrations measured in samples collected from 2010 through 2019, and a contaminated area of 4,500 m², the total area of the sediment disposal area. NRC staff did not consider any radioactive decay that may occur prior to the area being released for unrestricted use, adding additional conservatism to the analysis. The resulting dose was calculated to be less than 0.05 mSv/yr (5 mrem/yr).

3.4.2 Sediment Disposal Area and Monitoring of Disposal Actions

The physical structure and the established processes for accessing the sediment disposal area ensure minimum access to the area is kept to an as-needed basis and ensures minimal exposure to radiological material in the area. These include:

- Marking the boundaries of the sediment disposal area with posts and signs indicating the dedicated purpose of the enclosed area.
- Being designated an RCA, which requires workers to contact the Health Physics Department prior to entering.
- Allowing occupancy to the area only when disposing of the sediments, performing sampling activities, performing thermoluminescent dosimeter (TLD) changeouts, and other related activities.

As outlined in the discussion above regarding the disposal process, a sampling and waste management plan is prepared and reviewed by Columbia personnel prior to initiating each disposal action to ensure that radionuclide concentrations in the material being disposed are less than 20 percent of the disposal concentration limits listed in Table 2 of this document. Columbia also analyzes a composite sample collected from the disposal cell within thirty days of the disposal action to ensure that the disposal criteria have not been exceeded.

Workers are required to notify the Health Physics Department prior to entering the sediment disposal area, wear dosimetry while in the area, and be scanned when leaving the area. In

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ADAMS Accession No. ML22109A092

***concurrence via email**

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