

**NUCLEAR REGULATORY COMMISSION**

**[Docket No. 50-397; NRC-2018-0146]**

**Energy Northwest**

**Columbia Generating Station**

**AGENCY:** Nuclear Regulatory Commission.

**ACTION:** Environmental assessment and finding of no significant impact; issuance.

**SUMMARY:** The U.S. Nuclear Regulatory Commission (NRC) is considering issuance of an amendment to Renewed Facility Operating License No. NPF-21, issued on May 22, 2012, and held by Energy Northwest (the licensee) for the operation of Columbia Generating Station (Columbia), located in Benton County, Washington. The proposed amendment would revise the Environmental Protection Plan (Non-Radiological) (EPP), contained in Appendix B to the Columbia renewed facility operating license. The NRC is issuing a final environmental assessment (EA) and finding of no significant impact (FONSI) associated with the proposed license amendment.

**DATES:** The EA and FONSI referenced in this document is available on July 16, 2018.

**ADDRESSES:** Please refer to Docket ID **NRC-2018-0146** when contacting the NRC about the availability of information regarding this document. You may obtain publicly-available information related to this document using any of the following methods:

- **Federal Rulemaking Web site:** Go to <http://www.regulations.gov> and search for Docket ID **NRC-2018-0146**. Address questions about NRC dockets to Jennifer Borges; telephone: 301-287-9127; e-mail: [Jennifer.Borges@nrc.gov](mailto:Jennifer.Borges@nrc.gov). For technical questions, contact the individual listed in the **FOR FURTHER INFORMATION CONTACT** section of this document.

- **NRC's Agencywide Documents Access and Management System (ADAMS):** You may obtain publicly-available documents online in the ADAMS Public Documents collection at <http://www.nrc.gov/reading-rm/adams.html>. To begin the search, select "[ADAMS Public Documents](#)" and then select "[Begin Web-based ADAMS Search](#)." For problems with ADAMS, please contact the NRC's Public Document Room (PDR) reference staff at 1-800-397-4209, 301-415-4737, or by e-mail to [pdr.resource@nrc.gov](mailto:pdr.resource@nrc.gov). The ADAMS accession number for each document referenced in this notice (if that document is available in ADAMS) is provided the first time that a document is referenced.

- **NRC's PDR:** You may examine and purchase copies of public documents at the NRC's PDR, Room O1-F21, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852.

**FOR FURTHER INFORMATION CONTACT:** John Klos, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; telephone: 301-415-5136; e-mail: [John.Klos@nrc.gov](mailto:John.Klos@nrc.gov).

## **SUPPLEMENTARY INFORMATION:**

### **I. Introduction**

The NRC is considering issuance of an amendment to Renewed Facility Operating License No. NPF-21 issued to Energy Northwest for operation of Columbia, located in Benton County, Washington. The licensee submitted its license amendment request by letter dated December 18, 2017 (ADAMS Accession No. ML17352B255). If approved, the license amendment would add Section 4.2.2, "Aquatic Issues," to the Columbia EPP to require Energy Northwest to adhere to the specific requirements within the Incidental Take Statement (ITS) in the currently applicable biological opinion. The NRC prepared an EA to document its findings related to the proposed license amendment request in accordance with Section 51.21 of title 10 of the *Code of Federal Regulations* (10 CFR). Based on the results of the EA documented herein, the NRC did not identify any significant environmental impacts associated with the proposed amendment and is, therefore, issuing a FONSI in accordance with 10 CFR 51.32.

### **II. Environmental Assessment**

#### *Plant Site and Environs*

Columbia is a single unit plant with a boiling water reactor and a closed-cycle cooling system that withdraws water from and discharges water to the Columbia River. The facility occupies approximately 1,089 acres (441 hectares) of land leased from the U.S. Department of Energy within the Hanford Reservation. The leased land is located in Benton County, Washington, 12 miles (19 kilometers) northwest of Richland and

approximately 160 miles (257 kilometers) southeast of Seattle. The Columbia River borders the site to the east and flat rolling hills surround the site.

The U.S. Atomic Energy Commission, the NRC's predecessor agency, and the NRC have previously conducted environmental reviews of Columbia operations in several documents, which contain more detailed descriptions of the plant site and environs. Those documents include the Final Environmental Statement related to construction of the facility in December 1972 (ADAMS Accession No. ML101870543); the Final Environmental Statement related to initial operation of the facility in December 1981 (ADAMS Accession No. ML100570374); and NUREG-1437, "Generic Environmental Impact Statement [GEIS] for License Renewal of Nuclear Plants, Supplement 47, Regarding Columbia Generating Station—Final Report," dated April 2012 and its associated GEIS documents (ADAMS Package Accession No. ML12097A267).

#### *Description of the Proposed Action*

The proposed action would add language in Section 4.2, "Environmental Monitoring," of the Columbia EPP to require Energy Northwest to adhere to the specific requirements within the ITS in the currently applicable biological opinion. The proposed action would be in accordance with the licensee's application dated December 18, 2017.

By amending Section 4.2 of the EPP to state that Energy Northwest must adhere to the ITS in the currently applicable biological opinion, the proposed action would require Energy Northwest's compliance with the National Marine Fisheries Service's (NMFS) biological opinion, dated March 10, 2017 (ADAMS Accession No. ML17072A036). This biological opinion applies to Upper Columbia River spring run Chinook salmon (*Oncorhynchus tshawytscha*) and Upper Columbia River steelhead

(*Oncorhynchus mykiss*), and concludes that the continued operation of Columbia is not likely to jeopardize the continued existence of these species or destroy or adversely modify the designated critical habitat of these species. The ITS included in the biological opinion exempts the incidental take of these species from the prohibitions of Section 9 of the Endangered Species Act of 1973, as amended (ESA), provided that the specified Reasonable and Prudent Measures (RPMs) are implemented. The RPMs are:

1. Minimize the potential for incidental take of ESA-listed species as a result of elevated concentrations of chemical constituents in the mainstem Columbia River.
2. Minimize the potential for incidental take of ESA-listed species as a result of entrainment and impingement associated with the cooling water intake structure for Columbia.
3. Minimize the potential for incidental take<sup>1</sup> of ESA-listed species as a result of biological monitoring.
4. Ensure completion of a monitoring and reporting program to confirm that the terms and conditions in this ITS were effective in avoiding and minimizing incidental take from permitted activities and ensuring incidental take is not exceeded.

In order to implement the RPMs, the ITS prescribes a number of Terms and Conditions (T&Cs). The T&Cs require Energy Northwest to conduct effluent monitoring (RPM1), conduct impingement and entrainment studies (RPM 2), implement various best practices while conducting biological monitoring studies to minimize impacts to listed species (RPM 3), and submit a report to NMFS regarding all biological monitoring

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<sup>1</sup> The ESA prohibits the take of any federally listed species without a special exemption and states that the term “take” means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.

activities (RPM 4). Specifically, to minimize chemical exposures to ESA-listed species as described in RPM 1, Energy Northwest must conduct physical and chemical monitoring of the Columbia effluent, as specified in its National Pollutant Discharge Elimination System (NPDES) Permit No. WA002515-1, to ensure that effluent water quality controls are functioning as intended. To minimize potential impingement and entrainment as described in RPM 2, Energy Northwest must prepare and conduct an impingement study and an entrainment study for NMFS's review and comment, as described in its NPDES permit.

To minimize the potential for a take during biological monitoring as described in RPM 3, the ITS prescribes several best practices and reporting requirements for Energy Northwest to implement, including:

- Fish handling practices.
- Requirements to stop sampling when water temperatures reach specified limits, or if any ESA-listed adult salmon or steelhead or steelhead redds are observed at the site.
- Reporting requirements if Energy Northwest unintentionally captures any ESA-listed adult salmon or steelhead while angling for resident fish, if a take is likely, or if any authorized level of take is exceeded than the levels specified in the ITS.

To ensure completion of a monitoring and reporting program and to ensure that incidental take is not exceeded as described in RPM 4, Energy Northwest must submit to NMFS, with a copy to NRC, an annual post-season report describing the biological monitoring activities that occurred and a summary of each take including the ESA-listed species affected, the type of take, the location where the take occurred, and the date of occurrence. The annual report must also summarize any operational changes to

Columbia that affect the effluent discharge and have the potential to affect ESA-listed resources.

Notably, because the proposed amendment would require Energy Northwest's compliance with the "currently applicable" biological opinion, if NMFS were to issue a new biological opinion in the future, the proposed amendment would require Energy Northwest to adhere to the specific requirements in the ITS of that new biological opinion, and Energy Northwest would no longer be required to adhere to the March 10, 2017, biological opinion upon issuance of a new biological opinion.

#### *Need for the Proposed Action*

The proposed action is needed to reflect the biological opinion issued by NMFS on March 10, 2017, and to require Energy Northwest's compliance with the ITS and related RPMs and T&Cs contained therein. The proposed action is administrative in nature.

#### *Environmental Impacts of the Proposed Action*

The NRC has completed its evaluation of the proposed action and concludes that the proposed changes are administrative in nature, would have no direct effects on plant equipment or plant operation, and would not involve any changes to the design bases for Columbia.

With regard to potential radiological impacts, the proposed action would not increase the probability or consequences of accidents, would not change the types or increase the amount of effluent that may be released offsite, and would result in no increase in occupational or public radiation exposure. Therefore, there are no significant radiological environmental impacts associated with the proposed action.

With regard to potential non-radiological impacts, because the proposed action is administrative in nature, it would not have any direct impacts on land, air, or water resources, including impacts to terrestrial biota. In addition, the NRC staff identified no socioeconomic or environmental justice impacts associated with the proposed action. Therefore, there are no significant non-radiological environmental impacts associated with the proposed action.

An indirect effect of the proposed action is that Energy Northwest's impingement and entrainment studies (RPM 1 and 2) would likely require in-water work and the collection of larvae and eggs. In-water work could cause minor disturbances to nearby biota. However, the activity would be temporary and fish could swim away to avoid the area and return once the temporary work is completed. Removal of larvae and eggs of resident fish species could occur during collection periods for the entrainment study. However, the amount of individuals that would be collected for the study would be negligible when compared to the size of local resident fish populations. In addition, RPM 3 requires Energy Northwest to modify some of its collection practices while conducting biological monitoring studies. In general, these practices will result in beneficial effects to ESA-listed species because the purpose of the modifications are to minimize impacts. For example, during electrofishing, where fish are temporarily stunned for biologists to collect and measure them, RPM 3 requires Energy Northwest to handle ESA-listed fish with extreme care and keep them in cold water to the maximum extent possible during sampling and processing procedures. The NRC staff concludes that the indirect effects from the impingement and entrainment studies as well as the modified collection practices will not result in significant environmental impacts to the radiological or non-radiological environment.



Based on the foregoing analysis, the NRC concludes that there are no significant environmental impacts associated with the proposed action.

#### *Environmental Impacts of the Alternatives to the Proposed Action*

As an alternative to the proposed action, the NRC staff considered denial of the proposed license amendment (i.e., the “no-action” alternative). Denial of the application would result in no change in current environmental conditions or impacts. Accordingly, the environmental impacts of the proposed action and the no-action alternative are similar.

#### *Alternative Use of Resources*

The proposed action does not involve the use of any different resources than those previously considered in NUREG-1437, Supplement 47, prepared for the license renewal of Columbia.

#### *Agencies and Persons Consulted*

The NRC did not enter into consultation with any other Federal Agency or with the State of Washington regarding the environmental impact of the proposed action. However, on June 6, 2018, the NRC notified the Washington State official, Mr. Richard Cowley, Washington State Department of Health, Office of Radiation Protection of the proposed amendment. The State official had no comments.

### **III. Finding of No Significant Impact**

The NRC is considering issuance of an amendment to Renewed Facility Operating License No. NPF-21, issued to Energy Northwest for operation of Columbia.

The proposed amendment would revise the Columbia EPP to require Energy Northwest to adhere to the specific requirements within the ITS in the currently applicable biological opinion. On the basis of the EA included in Section II of this document and incorporated by reference into this finding, the NRC concludes that the proposed action would not have significant effects on the quality of the human environment. The NRC's evaluation considered information provided in the licensee's application as well as the NRC's independent review of other relevant environmental documents. Based on its findings, the NRC has determined not to prepare an environmental impact statement for the proposed action.

Dated at Rockville, Maryland, this 11<sup>th</sup> day of July, 2018.

For the Nuclear Regulatory Commission.

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