

By the Board, Mai T. Dinh, Director, Office of Proceedings.

Brendetta Jones,
Clearance Clerk.

[FR Doc. 2024–13166 Filed 6–13–24; 8:45 am]

BILLING CODE 4915–01–P

TENNESSEE VALLEY AUTHORITY

Amended Record of Decision for the Production of Tritium in Commercial Light Water Reactors

AGENCY: Tennessee Valley Authority.

ACTION: Amended record of decision.

SUMMARY: The Tennessee Valley Authority (TVA) is amending the April 5, 2017 Record of Decision (ROD) for the Final Supplemental Environmental Impact Statement (SEIS) for the Production of Tritium in a Commercial Light Water Reactor (CLWR). The SEIS was issued March 4, 2016, by the U.S. Department of Energy (DOE) National Nuclear Security Administration (NNSA) and adopted by TVA in its 2017 ROD. TVA is amending its previous decision to increase the number of tritium-producing burnable absorber rods (TPBARs) irradiated in its reactors at Watts Bar Nuclear Plant (WBN). In partnership with NNSA, TVA initially decided to implement the CLWR SEIS Preferred Alternative, Alternative 6, which allows for the irradiation of up to a total of 5,000 TPBARs every 18 months using TVA reactors at both the WBN and Sequoyah sites. Subsequent to the CLWR SEIS, WBN Unit 1 increased production under Unit 1 License Amendment 107 (July 2016) and Unit 2 tritium production was authorized under Unit 2 License Amendment 27 (May 2019). In April 2024, WBN Units 1 and 2 were further authorized to increase their tritium productions to 2,496 TPBARs in each unit under Unit 1 License Amendment 165 and Unit 2 License Amendment 72. Hence, TVA and NNSA are now opting to choose the previously analyzed CLWR SEIS Alternative 4, which allows for the irradiation of up to a total of 5,000 TPBARs every 18 months at WBN using Units 1 and 2.

FOR FURTHER INFORMATION CONTACT: Matthew Higdon, Tennessee Valley Authority, NEPA Specialist, 400 West Summit Hill Drive (WT11B), Knoxville, Tennessee 37902; telephone (865) 632–8051; or email mshigdon@tva.gov.

SUPPLEMENTARY INFORMATION: This notice is provided in accordance with the National Environmental Policy Act (NEPA), as amended (42 U.S. Code [U.S.C.] 4321 *et seq.*), the Council on Environmental Quality's regulations for

implementing NEPA (40 Code of Federal Regulations (CFR) 1500 through 1508, as updated April 20, 2022), and TVA's NEPA procedures (18 CFR 1318). TVA adopted the Final SEIS on March 4, 2016 (81 FR 11557–11558). As a cooperating agency, TVA provided subject matter expertise, independent review and evaluation, and close coordination with NNSA during the environmental review process, including preparation of the Draft SEIS and the Final SEIS. NNSA issued a ROD based on the Final SEIS on June 22, 2016 (81 FR 40685) and amended its ROD on September 14, 2023 (88 FR 63099). By this notice, TVA is providing notification of its amended decision and agency reasoning.

Background

The NNSA is responsible for maintaining and enhancing the safety, security, reliability, and performance of the nation's nuclear weapons stockpile. Tritium, a radioactive isotope of hydrogen, is an essential component of every weapon in the current and projected U.S. nuclear weapons stockpile and must be replenished periodically due to its short half-life. In March 1999, NNSA published the Final EIS for Production of Tritium in a Commercial Light Water Reactor, which addressed the proposed interagency agreement with TVA to produce tritium at TVA reactors using TPBARs. In May 1999, DOE published the ROD for the 1999 EIS, identifying its decision to implement an agreement for tritium production at the WBN Unit 1 reactor in Rhea County, Tennessee, and Sequoyah Units 1 and 2 reactors in Hamilton County, Tennessee. Under the proposal, TVA would irradiate up to 3,400 TPBARs per reactor per fuel cycle, which lasts about 18 months. The agreement was needed by NNSA because at the time the U.S. nuclear weapons complex did not have the capability to produce the amounts of tritium that were needed to support the nation's current and future nuclear weapons stockpile.

Following the environmental review, the agreement with NNSA was approved by the TVA Board of Directors in late 1999 and, in May 2000, TVA issued a ROD and adopted the NNSA's EIS (65 FR 26259). In 2000, TVA entered into an interagency agreement with NNSA under The Economy Act to provide irradiation services for producing tritium in TVA light water reactors through November 2035.

TVA received license amendments from the U.S. Nuclear Regulatory Commission (NRC) in 2002 to produce tritium in WBN Unit 1 reactor and both

Sequoyah reactors and has been producing tritium at the WBN Unit 1 reactor since 2003; TVA has not produced tritium in the Sequoyah reactors. Since 2003, irradiation experience at WBN has shown that the permeation rate per TPBAR per year has been higher than the estimate that was included and analyzed in the 1999 EIS by NNSA. NNSA prepared the 2016 CLWR SEIS to supplement its previous analysis to address the higher rates of permeation of tritium from TPBARs at TVA sites and to evaluate increasing tritium production quantities to meet requirements. The 2016 CLWR SEIS provides analysis of the potential environmental impacts from TPBAR irradiation based on a conservative estimate of the tritium permeation rate through the TPBAR cladding, NNSA's revised estimate of the maximum number of TPBARs necessary to support the current and projected future tritium supply requirements, and a maximum production scenario of irradiating no more than a total of 5,000 TPBARs every 18 months.

Six alternatives were analyzed in the CLWR SEIS, including the No Action Alternative, which was identified by TVA in its 2017 ROD as environmentally preferable. In their respective RODs, NNSA and TVA initially decided to implement the Preferred Alternative, Alternative 6, which allows for the irradiation of up to a total of 5,000 TPBARs every 18 months using TVA reactors at both the WBN and Sequoyah sites. At the time, this decision provided the greatest flexibility to meet potential future needs that could arise from various plausible but unexpected events.

After the 2016 SEIS, TVA increased irradiation of TPBARs at WBN Unit 1 under License Amendment 107 (July 2016) and at WBN Unit 2 under Unit 2 License Amendment 27 (May 2019). In April 2024, WBN Units 1 and 2 were further authorized to increase their tritium productions to 2,496 TPBARs in each unit under Unit 1 License Amendment 165 and Unit 2 License Amendment 72. Because TVA does not plan to produce tritium at its Sequoyah site, TVA and NNSA are now opting to choose the previously analyzed CLWR SEIS Alternative 4, which allows for the irradiation of up to a total of 5,000 TPBARs every 18 months at WBN Units 1 and 2.

In a February 2023 memorandum, TVA documented its review of the CLWR SEIS to determine if additional environmental review under NEPA was required, consistent with Council on Environmental Quality's regulations implementing NEPA at 40 CFR

1502.9(d). As discussed in the February 2023 memorandum, entitled “Determination of NEPA Adequacy, Production of Tritium in a Commercial Light Water Nuclear Reactor (Watts Bar Nuclear Plant),” TVA concluded that there were no new circumstances or information relevant to environmental concerns that are significant or that substantially change the analysis of the 2016 CLWR SEIS. Recent information reviewed by TVA in most cases confirmed TVA’s previous description of the affected environment. In instances where recent information differed notably, that information does not substantially change the previous environmental analysis. TVA found that the SEIS continues to provide a conservative bounding analysis for a variety of key issues, including the amount of additional fuel assemblies, the expected tritium permeation rate, and waste generation. In addition, TVA confirmed that the CLWR SEIS analysis indicates that there would not be any significant increase in radiation exposure associated with TPBAR irradiation for facility workers or the public. For all analyzed alternatives (including both Alternatives 4 and 6), estimated radiation exposures would remain well below regulatory limits. The calculated estimated exposures for normal reactor operations with even the maximum number of TPBARs are comparable to those for normal reactor operation without TPBARs.

After determining additional environmental review was not necessary, in March 2023 TVA submitted to the NRC a License Amendment Request (#165) to Facility Operating License NPF-90 (#165) and a License Amendment Request (#72) to Facility Operating License NPF-96 for WBN Units 1 and 2. The amendments would allow TVA to increase the maximum number of TPBARs to 2,496 in each WBN unit. The NRC approved the two amendments on April 15, 2024.

Amended Decision

TVA is amending its previous decision (82 FR 16653) to implement the 2016 CLWR SEIS’s Alternative 6 that assumes TVA would irradiate up to a total of 5,000 TPBARs every 18 months using both the WBN and Sequoyah sites. Because TVA would irradiate a maximum of 2,500 TPBARs in any one reactor, this could involve the use of one or both reactors at each of the sites. Instead, TVA has decided to implement the 2016 CLWR SEIS’s Alternative 4 that assumes TVA would irradiate up to a total of 5,000 TPBARs every 18 months at WBN using both reactors. Since TVA would irradiate a maximum of 2,500

TPBARs in any one reactor, both Units 1 and 2 would be used to produce tritium. Under this amended decision, TVA will not irradiate TPBARs for tritium production at the Sequoyah site. This amended decision is consistent with the September 2023 decision by NNSA to amend its previous decision and implement Alternative 4 of the 2016 CLWR SEIS (88 FR 63099).

Basis for Decision

The basis for TVA’s decision is its commitment to provide irradiation services for producing tritium for NNSA under the interagency agreement established in 2000 between the two agencies. The proposal reflects responsible planning on the part of NNSA and provides the greatest flexibility for NNSA to meet future tritium production requirements and assist in meeting national security requirements. The decision reflects TVA’s continued commitment to support the nation’s defense efforts and national security requirements.

The environmental impacts of the proposed action have been addressed in the previous environmental impact statements. TVA’s 2023 Determination of NEPA Adequacy memorandum further addresses consideration by TVA of new information or circumstances relevant to environmental concerns. In its 2023 memorandum, TVA addressed the anticipated effects on the amount of spent fuel to be generated at WBN, the fuel cycle there, and the amount of tritiated wastewater estimated to be generated from TPBAR irradiation.

Regarding the amount of spent fuel to be generated at WBN, implementing Alternative 4 would result in 36 additional fuel assemblies every 18 months. The SEIS, which assumed up to 41 additional fuel assemblies, provides a conservative bounding analysis of the approximately 2,500 TPBAR equilibrium core designs. Although there would be additional spent fuel generated under Alternative 4, TVA has infrastructure in place to manage the increased volume of spent nuclear fuel assemblies.

Regarding the new decision’s effects on the fuel cycle, the cycle length is only mentioned in the SEIS twice and only in the context of being a “potential uncertainty” in determining if it was necessary to assume in the SEIS a higher, more conservative tritium permeation rate. TVA does not consider the operating cycle length to be uncertain, and it also does not anticipate irradiation of up to 2,500 TPBARs at each reactor would affect the typical fuel cycle. Therefore, the issue has no bearing on the review of

adequacy of the SEIS in addressing the irradiation of up to 5,000 TPBARs at WBN.

Lastly, the estimated amount of tritiated wastewater (due to permeation from the TPBARs into the cooling water) was not identified in the SEIS, as it is difficult to separate this out from other releases from such things as turbine building sumps, floor drain collector sumps, groundwater sumps, etc. However, to keep maximum tritium concentrations low, TVA will continue to use a “feed and bleed” technique when releasing wastewater; the technique requires additional cooling water per fuel cycle to ensure discharges are within regulatory limits. TVA estimates using this technique will increase water usage by approximately 25 percent but is not expected to affect environmental impacts.

The current proposal does not represent a substantive change to operations, activities, and associated impacts addressed and analyzed in the existing NEPA documentation. Therefore, based on its review of Alternative 4 in the 2016 CLWR SEIS and TVA’s updated analysis and review for significant new circumstances or information or substantial changes to the proposal, TVA’s decision is reasonable and no further NEPA analysis is required. Similar to the identification in the 2017 ROD, TVA identifies the No Action Alternative as the environmentally preferred alternative in this amended ROD. The amended decision does not affect TVA’s commitment to implement relevant mitigation measures identified in TVA’s 2017 ROD, and TVA will continue to monitor its operations for emissions to air and water in accordance with NRC licensing requirements. TVA has adopted all practicable means to avoid or minimize environmental harm from the selected alternative.

Authority: 40 CFR 1505.2.

Matthew M. Rasmussen,
Senior Vice President, Nuclear Engineering and Operations Support.

[FR Doc. 2024-13069 Filed 6-13-24; 8:45 am]

BILLING CODE 8120-08-P

DEPARTMENT OF THE TREASURY

Office of Foreign Assets Control

Notice of OFAC Sanctions Actions

AGENCY: Office of Foreign Assets Control, Treasury.

ACTION: Notice.

SUMMARY: The U.S. Department of the Treasury’s Office of Foreign Assets