[6450-01-P]

DEPARTMENT OF ENERGY

National Nuclear Security Administration

Amended Record of Decision for the Continued Operation of the Y–12 National Security Complex

AGENCY: National Nuclear Security Administration, Department of Energy.

ACTION: Record of decision.

SUMMARY: The National Nuclear Security Administration (NNSA), a separately organized agency within the U.S. Department of Energy (DOE), is amending its July 20, 2011, Record of Decision for the Continued Operation of the Y-12 National Security Complex (2011 ROD) (76 FR 43319) to reflect its decision to implement a revised approach for meeting enriched uranium (EU) requirements, by upgrading existing EU processing buildings and constructing a new Uranium Processing Facility (UPF). Additionally, NNSA has decided to separate the single-structure UPF design concept into a new design consisting of multiple buildings, with each constructed to safety and security requirements appropriate to the building's function. This revised approach is a hybrid of two alternatives previously analyzed in the 2011 *Final Site-Wide Environmental Impact Statement for the Y–12 National Security Complex*, DOE/EIS–0387 (Y-12 SWEIS). The scope of this Amended ROD is limited to actions which have been found necessary to sustain Y-12's capability to conduct EU processing operations in a safe and secure environment. Those actions are also addressed in a Supplement Analysis (SA) (DOE/EIS-0387-SA-01), issued by NNSA in April

2016. All other defense mission activities and non-defense mission activities conducted at Y-12 under the alternative selected for implementation in the 2011 ROD are outside the scope of this decision. As a result of preparing the SA, NNSA has determined that no further National Environmental Policy Act (NEPA) analysis is needed to support this Amended ROD.

FOR FURTHER INFORMATION CONTACT: For further information on this Amended ROD, the SA, or to receive a copy of the SA, contact: Ms. Pam Gorman, SA Document Manager, U.S. Department of Energy, National Nuclear Security Administration, UPF Project Office, P.O. Box 2050, Oak Ridge, TN 37831-8116; or Pamela.Gorman@upo.doe.gov; or (865) 576–9918. For information on the DOE NEPA process, contact: Ms. Carol M. Borgstrom, Director, Office of NEPA Policy and Compliance (GC–54), U.S. Department of Energy, 1000 Independence Avenue, SW., Washington, DC 20585, (202) 586–4600, or leave a message at (800) 472–2756. This Amended ROD, the SA, and related NEPA documents are available on the DOE NEPA Website at www.energy.gov/nepa.

SUPPLEMENTARY INFORMATION:

Background

Y-12 is NNSA's primary site for uranium operations, including EU processing and storage, and is one of the primary manufacturing facilities for maintaining the U.S. nuclear weapons stockpile. In the Y-12 SWEIS, NNSA analyzed the potential environmental impacts of ongoing and future operations and activities at Y-12. Five alternatives were analyzed in the Y--12 SWEIS: (1) No Action Alternative (maintain the status quo), (2) UPF Alternative, (3) Upgrade in-Place Alternative (4) Capability-sized UPF Alternative, and (5) No Net Production/Capability-sized UPF Alternative (the environmentally preferable alternative in the 2011 Y-12 SWEIS). In the 2011 ROD, NNSA decided to implement the preferred alternative from the Y-12 SWEIS, the Capability-sized UPF Alternative, and to construct and operate a single-structure Capability-sized UPF at Y-12 as a replacement for certain existing buildings.

In January 2014, as a result of concerns about UPF cost and schedule growth, the Acting Administrator of the NNSA requested that the Director of the Oak Ridge National Laboratory lead a "project peer review" of the UPF. The result of that review, the "Final Report of the Committee to Recommend Alternatives to the Uranium Processing Facility Plan in Meeting the Nation's Enriched Uranium Strategy" (the Red Team Report) was released in April 2014. The Red Team Report emphasized the importance of UPF in the context of a broader set of uranium mission requirements: sustaining and modernizing EU manufacturing

capabilities, reducing material at risk (MAR) in Y-12's EU processing facilities, making investments in enduring buildings, constructing new floor space and enabling transition of critical Building 9212 capabilities into the UPF no later than 2025.

Under the revised strategy that resulted from this review, NNSA would: (1) construct and operate a new facility (the UPF) consisting of multiple buildings rather than the single-structure UPF facility analyzed in the Y-12 SWEIS, and (2) perform necessary maintenance and upgrades to some existing EU facilities. In the revised UPF design approach, the multiple UPF buildings would each be constructed to safety and security requirements appropriate to the building's function. The revised strategy is described in detail in Chapter 3 of the SA (and referred to, therein, as the proposed action).

NEPA Process for Amending the ROD

The Y-12 SWEIS evaluated the potential impacts of the reasonable range of alternatives for continuing EU processing operations at Y-12 and provided a basis for the 2011 ROD. The Y-12 SWEIS provides much of the basis for this current decision. As discussed in the Summary, NNSA's revised strategy of upgrading existing EU buildings and constructing UPF with multiple buildings is different from the Capability-sized UPF that NNSA selected in the 2011 ROD. Instead, it is a hybrid approach that combines elements of the Upgrade in-Place Alternative and the Capability-sized UPF Alternative, Alternatives (3) and (4).

NNSA prepared an SA (DOE/EIS-0387-SA-01) in accordance with Council on Environmental Quality and DOE regulations implementing NEPA (40 CFR 1502.9(c) and 10 CFR 1021.314(c)) to determine whether the preparation of a new or Supplemental Environmental Impact Statement (EIS) would be required. In preparing the SA, NNSA considered new information relevant to environmental concerns that has emerged since the 2011 Y-12 SWEIS and also examined other ongoing or proposed actions at Y-12 and within the surrounding region of influence to determine whether these presented any potentially significant cumulative impacts.

Summary of Impacts

Section 2.1 of the SA discusses environmental changes at Y-12 and in the surrounding region, which have occurred since publication of the Y-12 SWEIS and that are relevant to the analysis in the SA. Information from the U.S. Geologic Survey (USGS) 2014 *Update of the United States National Seismic Hazard Maps* is included in this section of the SA.

The SA analyzes the potential impacts of the proposed action on land use, aesthetics, climate and air quality, geology and soils, water resources, ecological resources, cultural resources, infrastructure and utilities, socioeconomics, waste management, human health and safety, accidents and intentional destructive acts, transportation, and environmental justice. Section 4.2 of the SA provides: (1) a summary of the potential environmental impacts from the Y-12 SWEIS, (2)

the estimate of potential impacts specific to the proposed action, and (3) a more detailed analysis of potential impacts for those NEPA resource areas where NNSA determined that there might be potentially significant new circumstances or information relevant to environmental concerns. Table 4-1 of the SA presents this information in a comparative fashion for each resource area.

As presented in Table 4-1, impacts to climate and air quality, geology and soils, water resources, cultural resources, infrastructure and utilities, socioeconomics, waste management, transportation, and environmental justice would be bounded by the analysis in the Y-12 SWEIS. With respect to ecological resources, since publication of the 2011 Y-12 SWEIS, the northern long-eared bat (*Myotis septentrionalis*) has been listed as threatened by the U.S. Fish and Wildlife Service (USFWS), and Y-12 falls within the range for this species. However, NNSA does not anticipate any significant adverse effects to this special status species. As discussed in the SA, the activities associated with the proposed action would occur on an existing highly industrial site. Also, the potentially impacted habitat for the northern long-eared bat habitat overlaps with that of the Indiana bat and gray bat. Accordingly, NNSA determined that the proposed action described in the SA would not require a revision of the 2011 Y-12 SWEIS Biological Assessment. The USFWS concurs with NNSA's "no effect" determinations for the federally endangered gray bat (*Myotis grisescens*), Indiana bat (*Myotis sodalist*), and threatened northern long-eared bat (*Myotis septentrionalis*).

Potential impacts to human health, from either normal EU processing operations or accidents (including intentional destructive acts), would also be bounded by the analysis in the Y-12 SWEIS. Both the 2011 Y-12 SWEIS and the SA evaluated the safety of the continued use of existing facilities and concluded that all radiation doses from normal operations would be below regulatory standards with no statistically significant impact on the health and safety of workers or the public. With regard to seismic risks specifically, both the 2011 Y-12 SWEIS and the SA evaluated the potential impacts of the release of radioactive materials to the environment that could result from severe seismic events. For both the public and workers, less than 1 latent cancer fatality from radiological exposures would be expected for any of the seismic accident scenarios evaluated. Further, the risk[1] assessments for these seismic accident scenarios are bounded by those of other severe accidents for all facilities associated with EU operations at Y-12. This conclusion has not changed as a result of the new USGS seismic map for the eastern Tennessee area. NNSA has taken and will continue to take steps to reduce the MAR administrative limits for existing EU facilities to further reduce the radiological consequences of potential accidents.

Although land disturbance and visual impacts would be slightly greater than the analysis in the Y-12 SWEIS (due to transmission line construction), those impacts would not be significant.

[1] Although "risk" is a term that can be used to express the general concept that an adverse effect could occur, in DOE quantitative assessments it refers to the numeric product of the probability and consequences.

The analysis in the SA indicates that the potential environmental impacts of the NNSA's revised strategy would not be significantly different or significantly greater than those NNSA identified in the Y-12 SWEIS. For the resource areas analyzed, no differences or only minor differences in potential environmental impacts would be expected to result. Detailed descriptions of these differences are presented in Table 4-1 of the SA. After comparing the analysis of potential environmental impacts associated with the proposed actions in the SA to those analyzed in the Y-12 SWEIS, NNSA determined that preparation of a supplemental or new EIS is not warranted.

Based on the analysis in the SA, NNSA's revised strategy is not a substantial change to the proposals covered by the Y-12 SWEIS, nor does it represent significant new circumstances or information relevant to environmental concerns, and is adequately supported by existing NEPA documentation, including the Y-12 SWEIS and additional NEPA analyses (identified in Section 1.4 of the SA) prepared to address specific activities at Y-12. Thus, consistent with 10 CFR 1021.315(e), the existing 2011 ROD for the Y-12 SWEIS can be amended, and no further NEPA documentation is required to implement the proposed action at Y-12.

Environmentally Preferable Alternative

In the 2011 ROD, NNSA designated the No Net Production/Capability-sized UPF Alternative (Alternative 5) as the environmentally preferable alternative. NNSA believes that alternative is still the environmentally preferable alternative.

Amended Decision

NNSA has decided to continue to operate Y-12 to meet the stockpile stewardship mission critical activities assigned to the site. NNSA will meet EU requirements using the proposed action described in Section 3.0 of the SA. That proposed action is a hybrid approach of upgrading existing EU buildings and separating the single-structure UPF into multiple buildings, with each constructed to safety and security requirements appropriate to the building's function.

Basis for Decision

National security policies continue to require NNSA to maintain the nation's nuclear weapons stockpile, as well as its core technical competencies and capabilities. As was the case when NNSA issued its Record of Decision for the Y-12 SWEIS in 2011, NNSA's decisions are based on its mission responsibilities and its need to sustain Y-12's ability to operate in a manner that allows it to fulfill its responsibilities in an environmentally sound, timely, and fiscally prudent manner. NNSA continues to require Y-12 EU processing facilities to provide reliable, long-term enriched uranium processing capability with modern technologies and equipment, improved security posture for Special Nuclear Material; reduced accident risks; improved health and safety for workers and the

public; improved operational efficiency; and reduction in the cost of operating and maintaining key facilities.

This amended decision will enable NNSA to maintain the required expertise and capabilities to deliver uranium products while modernizing production facilities. This amended decision will also avoid many of the safety risks of operating aged buildings and equipment by relocating processes that cannot be sustained in existing, enduring buildings. It will also allow NNSA to reduce the risks of EU operations through process improvements enabled by NNSA's investments in developing new technologies to apply in Y-12 facilities. Through an extended life program, mission-critical existing and enduring buildings and infrastructure will be maintained and/or upgraded, further enhancing safety and security at the Y-12 site.

Mitigation Measures

Y-12 will continue to operate in compliance with environmental laws, regulations, policies, and within a framework of contractual requirements. In the 2011 ROD, NNSA adopted the measures identified in the 2011 Y-12 SWEIS, to avoid, minimize and mitigate environmental impacts from the Capability-sized UPF Alternative (Alternative 4). NNSA will continue to impose contractual requirements for actions necessary to comply with the identified mitigation measures.

Additionally, as a result of consultations with the USFWS, NNSA is extending by one month the time frame for tree cutting restrictions, established for the protection of roosting and swarming bats. These contractually required restrictions will now remain in effect annually from March 31st through November 15th.

Issued in Washington D.C. on JULY 5th, 2016

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