

[6450-01-P]

**DEPARTMENT OF ENERGY**

**Notice of Final Environmental Assessment and Finding of No Significant Impact for the Construction and Operation of a Radiological Work and Storage Building**

**AGENCY:** Department of Energy

**ACTION:** Finding of No Significant Impact

**SUMMARY:** Pursuant to the National Environmental Policy Act of 1969, as amended (NEPA) (42 U.S.C. 4321 et seq.); the Council on Environmental Quality Regulations for implementing the procedural provisions of NEPA (40 CFR Parts 1500-1508); and the Department of Energy (DOE) implementing procedures (10 CFR 1021); the Naval Nuclear Propulsion Program (NNPP) announces the availability of a Final Environmental Assessment (EA) for construction and operation of a radiological work and storage building at the Knolls Atomic Power Laboratory Kesselring Site in West Milton, New York. A modernized facility is needed to streamline radioactive material handling and storage operations, permit demolition of aging facilities, and accommodate efficient maintenance of existing nuclear reactors. The EA shows that the potential effects on the human environment associated with the construction and operation of the radiological work and storage building are not significant. Therefore, the NNPP has concluded that an Environmental Impact Statement (EIS) is not required to be prepared and is issuing a Finding of No Significant Impact (FONSI).

**ADDRESSES:** The Final EA and FONSI may be viewed at the Saratoga Springs Public Library in Saratoga Springs, NY, the Schenectady County Public Library (Niskayuna Branch) in Niskayuna, NY, or online at

[http://www.NNPP-NEPA.us/environmental\\_assessments/kesselring\\_site/rwsb\\_ea](http://www.NNPP-NEPA.us/environmental_assessments/kesselring_site/rwsb_ea).

**SUPPLEMENTARY INFORMATION:** The NNPP is responsible for all aspects of U.S. Navy nuclear power and propulsion pursuant to 50 U.S.C. 2406 and 2511. These responsibilities include design, maintenance, and safe operation of nuclear propulsion systems throughout their

operational life cycles. Crucial components of this mission are to provide prospective Naval nuclear propulsion plant operators and officers with training and certification in the actual hands-on operation of a nuclear propulsion plant, and to test new Naval nuclear propulsion plant technologies. Two land-based training platforms are located at the Knolls Atomic Power Laboratory Kesselring Site near West Milton, Saratoga County, New York.

**Purpose and Need:** The operation, maintenance, refueling, overhaul, and decommissioning of the prototype naval nuclear reactors results in low-level radioactive contamination of some support equipment and the generation of low-level radioactive waste. A shortfall has been identified between the radiological work and storage space currently available at the Kesselring Site and the space that is necessary to support continued operation and maintenance on the prototypes. Radioactive materials must be handled in facilities that are specifically designed to contain radioactivity and prevent the spread of radioactive contamination to workers, the public, and the environment. Additional modernized radiological work and storage space is needed to support maintenance on the operational nuclear prototypes at the Kesselring Site. No spent nuclear fuel will be handled or stored in the new Radiological Work and Storage Building or any of the alternatives being considered.

**Alternatives Considered:** The NNPP identified three alternatives to address the above need.

- Alternative 1 – Construct a new Radiological Work and Storage Building (Proposed Action)
- Alternative 2 – Construct a Temporary Radiological Work Structure
- Alternative 3 – Continue to use existing facilities (No Action Alternative)

**Description of the Proposed Action:** The Proposed Action demolishes Building 80C and constructs a modernized Radiological Work and Storage Building that would have a footprint of approximately 670-1,270 square meters (7,200-13,600 square feet). Demolition of Building 80C and disposition of equipment inside of Building 80C would be completed in accordance with stringent NNPP requirements. The new facility would be used for the preparation of equipment

for maintenance operations, packaging of radiological waste for shipment, and temporary storage of radiologically controlled material. The facility would be built within an already developed portion of the Kesselring Site. The Radiological Work and Storage Building would be designed and constructed to meet stringent NNPP requirements to contain radioactivity and prevent the spread of radioactive contamination to workers, the public, and the environment. NNPP standards include applicable Environmental Protection Agency (EPA) standards (ANSI-1999 and 40 CFR 61). The proposed location of the Radiological Work and Storage Building allows for staging equipment for maintenance in parallel with moving equipment during prototype maintenance evolutions. The facility design would be a site-specific adaptation of radiological work facilities constructed at naval shipyards that perform similar work on nuclear-powered ships. The facility would be equipped with internal bridge cranes to support movement of equipment and material within the facility.

**Environmental Impacts of Proposed Action:** The DOE evaluated the potential environmental impacts of the construction and operation of the proposed new Radiological Work and Storage Building, a Temporary Radiological Work Structure, and a No Action Alternative. The DOE considered geology, topography and soils, ecological resources, water resources, noise, air quality, greenhouse gas emissions, land use, cultural resources, socioeconomics and environmental justice, traffic and transportation, aesthetic and scenic resources, utilities and energy, non-hazardous waste, radiological impacts, and cumulative effects. The DOE determined that either there would be no impacts or the potential impacts would be insignificant, short-term or both.

#### Geology, Topography, and Soils

The geology and topography at the Kesselring Site would not be affected by the construction and demolition activities. Short-term soil impacts would occur but would be minimized through the use of erosion and sedimentation control techniques such as installing silt fencing and sediment traps to stabilize soil.

### Ecological Resources

Ecological resources would not be affected since the construction and demolition activities are on previously developed portions of the Kesselring Site. The developed area of the Kesselring Site is not a typical habitat for endangered species and the wetlands that exist outside of the developed area would not be affected by any of the alternatives. None of the alternatives would change the existing conditions.

### Water Resources

Demolition and construction activities associated with the new modernized storage facility would be in the developed area of the Kesselring Site. Activities would be done in accordance with applicable federal, state, and local requirements, including development and implementation of an erosion and sediment control plan for storm water management. Radiological work areas in the new modernized facility would be built with impermeable floors, thus no impact would be expected during operations.

### Noise

Noise during construction, demolition, and operation of the new modernized storage facility would not be discernible beyond the site boundaries which are nearly one mile from the developed area of the site.

### Air Quality

The emissions from the Kesselring Site resulting from steam boilers would not increase from the addition of a new modernized facility. There would be short-term, temporary impacts to air quality during construction but would not impact the designation of the area with respect to National Ambient Air Quality Standards. The new modernized storage facility would be equipped with high efficiency air particulate filters, and emissions would be expected to be well within EPA requirements (40 CFR 61). Building 80C would be evaluated as a diffuse source of airborne radioactivity and surveyed using stringent NNPP standards prior to demolition, with applicable monitoring performed during demolition to ensure compliance with EPA regulations in

40 CFR 61. The impacts on air quality would not be significant and would be temporary during construction and demolition.

#### Greenhouse Gas Emissions

Under any of the alternatives, there would be minor emissions of carbon dioxide due to construction traffic and equipment; however, these actions would not be significant.

#### Land Use

The new modernized facility would be located within the developed portion of the Kesselring Site and would not impact the land use; the land use would be unchanged.

#### Cultural Resources

The alternatives have no impact on historic properties or other cultural resources.

#### Socioeconomics and Environmental Justice

Implementation of the Proposed Action would result in a temporary increase in jobs during construction; however, the increase would be small compared to surrounding area employment. There would be no increase or decrease in long term employment as a result of operations in the new modernized storage facility. Since no significant impacts are expected, there would be no expected disproportionately high and adverse impacts to minority and low income populations as a result of implementing any of the alternatives.

#### Traffic and Transportation

Vehicular traffic to the Kesselring site would increase by about 30 vehicles compared to more than 2,000 vehicles a day currently. During demolition, radioactive waste shipments would increase about 10 percent. The effect of the Proposed Action on traffic and transportation would be minimal and temporary during the construction and demolition activities.

#### Aesthetic and Scenic Resources

The developed area of the Kesselring Site is not visible from off-site locations; none of the alternatives would have an impact on the aesthetic and scenic resources.

### Utilities and Energy

Existing site utility systems have sufficient capacity to support the utility requirements for the new modernized storage facility. The operation of the new modernized storage facility would have little impact on the amount of energy used by the Kesselring Site as this facility would replace a less energy efficient facility that would be demolished.

### Non-Hazardous Waste

Construction and operation of a new Radiological Work and Storage Building is expected to produce about 40 tons of non-hazardous waste in addition to the approximately 1,500 tons produced in a typical year by the Kesselring Site. Solid waste would continue to be contained, stored, transported, and disposed of in accordance with state and federal regulations. No significant impacts to the environment would be expected.

### Radiological Impact

Stringent NNPP radiological control practices are utilized at the Kesselring Site to contain radioactivity and to ensure the protection of workers, the public, and the environment. The new modernized Radiological Work and Storage Building would be designed and operated to stringent NNPP standards that would also ensure compliance with applicable EPA requirements.

Building 80C would be surveyed before demolition in accordance with stringent NNPP standards, which provide equivalent or better levels of detection and assessment as the Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM) and Multi-Agency Radiation Survey and Assessment of Materials and Equipment (MARSAME). Building 80C would be evaluated as a diffuse source of airborne radioactivity during demolition to ensure compliance with EPA regulations in 40 CFR 61 and consistent with the Memorandum of Understanding between U.S. EPA and U.S. DOE concerning the Clean Air Act Emissions Standards for Radionuclides.

Radioactive low-level solid waste from demolition of Building 80C and operation of the new Radioactive Work and Storage Building would be shipped by authorized common carriers to disposal sites outside of New York State in accordance with applicable Department of Transportation, DOE, and Nuclear Regulatory Commission requirements that have been previously analyzed and shown to have no significant impacts. These waste shipments would be a small part of the shipments of radioactive materials made annually in the United States.

The Kesselring Site conducts extensive monitoring of adjacent streams, perimeter radiation levels, and airborne discharges from radiological facilities. No significant impacts to the environment and no adverse impact on the health and safety of the public would be expected from the demolition of Building 80C, and the construction and operation of a modernized Radiological Work and Storage Building. This is consistent with the conclusions from on-going environmental monitoring.

#### Cumulative Impacts

Since construction of the modernized Radiological Work and Storage Building and all projects currently being considered at the Kesselring Site would occur in the previously developed industrial area, no significant cumulative impacts would be expected.

#### Conclusion

Because the Proposed Action meets the needs of the NNPP and has no significant impact on the quality of the human environment, the NNPP concludes that the Proposed Action to construct a modernized Radiological Work and Storage Building is the preferred action to address the need for streamlining radioactive material handling and storage operations, permitting demolition of aging facilities, and accommodating efficient maintenance of existing nuclear reactors at the Kesselring Site.

## Public Participation

The NNPP published a Notice of Intent (NOI) to prepare this EA in the Federal Register on August 31, 2011 to solicit comments on the scope of the EA. A notification was also published in three newspapers in New York (The Saratogian, The Times Union, and The Daily Gazette). In addition, notifications were sent to federal, state, and local public officials. The NNPP published a Notice of Availability (NOA) for the Draft EA in the Federal Register on March 8, 2012. The NOA was also published in three newspapers in New York. A summary of the comments received is included in the Final EA. Clarifications to the Draft EA have been incorporated into the Final EA which addressed all comments received.

**FINDING OF NO SIGNIFICANT IMPACT:** On the basis of the EA prepared in support of the construction and operation of the modernized Radiological Work and Storage Building, the Department of Energy Naval Nuclear Propulsion Program has determined that the Proposed Action will not significantly affect the quality of the human environment. Therefore, the Department of Energy is not required to prepare an EIS and is issuing this Finding of No Significant Impact.

Signed in Washington, D.C this 10<sup>TH</sup> day of July 2012.



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ADM Kirkland H. Donald

Deputy Administrator for Naval Reactors