[6450-01-P]

DEPARTMENT OF ENERGY

Environmental Impact Statement for the Recapitalization of Infrastructure Supporting Naval Spent Nuclear Fuel Handling at the Idaho National Laboratory

AGENCY: Department of Energy.

ACTION: Notice of availability and public hearings.

SUMMARY:

The U.S. Department of Energy (DOE) Naval Nuclear Propulsion Program (NNPP) announces the availability of the *Draft Environmental Impact Statement for the Recapitalization of Infrastructure Supporting Naval Spent Nuclear Fuel Handling at the Idaho National Laboratory* (DOE/EIS-0453-D) for public review and comment, as well as the locations, dates and times for public hearings. The Draft EIS evaluates the potential environmental impacts associated with recapitalizing the infrastructure needed to ensure the long-term capability of the NNPP to support naval spent nuclear fuel handling for at least the next 40 years.

DATES:

The NNPP invites interested parties to comment on the Draft EIS during the public comment period which ends August 10, 2015. NNPP will consider all comments received or postmarked during the comment period in preparing the Final EIS. NNPP will consider any comments postmarked after the comment period to the extent practicable.

The NNPP will hold three public hearings on the Draft EIS. Locations, dates and times are provided in the **SUPPLEMENTARY INFORMATION** portion of this notice.

ADDRESSES:

Copies of the Draft EIS are available in public reading rooms and libraries as indicated in the **SUPPLEMENTARY INFORMATION** portion of this notice. The Draft EIS is also available for review at www.ecfrecapitalization.us and on the DOE's NEPA web site at http//energy.gov/nepa.

Written comments on the EIS may be submitted by mailing to:

Erik Anderson

Department of Navy

Naval Sea Systems Command

1240 Isaac Hull Avenue, SE

Stop 8036

Washington Navy Yard, DC 20376-8036

Comments provided by electronic mail (e-mail) should be submitted to: ecfrecapitalization@unnpp.gov.

FOR FURTHER INFORMATION CONTACT:

For further information about this Draft EIS, contact Mr. Erik Anderson, as described above.

For information regarding the DOE NEPA process, please 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, Telephone (202) 586-4600, or leave a message at (800) 472-2756.

SUPPLEMENTARY INFORMATION:

The NNPP prepared this Draft EIS in accordance with the National Environmental Policy Act of 1969 (NEPA), as amended (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 DOE NEPA implementing procedures (10 CFR part 1021). The NNPP is committed to manage naval spent nuclear fuel in a manner that is consistent with the *Department of Energy (DOE) Programmatic Spent Nuclear Fuel Management and Idaho National Engineering Laboratory Environmental Restoration and Waste Management Programs Final Environmental Impact Statement* (DOE/EIS-0203-F), and to comply with the Settlement Agreement, as amended in 2008, among the State of Idaho, the DOE, and the Navy concerning the management of naval spent nuclear fuel. Consistent with the Record of Decision for DOE/EIS-0203-F, naval spent nuclear fuel is shipped by rail from shipyards and prototype facilities to the Idaho National Laboratory (INL) for processing. To allow the NNPP to continue to unload, transfer,

prepare, and package naval spent nuclear fuel for disposal, three alternatives are evaluated in the Draft EIS: No Action Alternative, Overhaul Alternative, and New Facility Alternative.

Background

The mission of the NNPP, also know as the Naval Reactors Program, is to provide the U.S. with safe, effective, and affordable naval nuclear propulsion plants and to ensure their continued safe and reliable operation through lifetime support, research and development, design, construction, specification, certification, testing, maintenance, and disposal. A crucial component of this mission, naval spent nuclear fuel handling, occurs at the end of a nuclear propulsion system's useful life or when naval nuclear fuel has been depleted. The NNPP is responsible for removal of the naval spent nuclear fuel through a defueling or refueling operation. Both operations remove the naval spent nuclear fuel from the reactor, but a refueling operation also involves installing new fuel, allowing the nuclear-powered ship to be redeployed into the U.S. Navy fleet. Once the naval spent nuclear fuel has been removed from an aircraft carrier, submarine, or prototype, it is sent to the Naval Reactors Facility (NRF) for examination and further naval spent nuclear fuel handling including transferring, preparing, and packaging for transfer to an interim storage facility or geologic repository.

The NNPP ensures that naval spent nuclear fuel handling is performed in a safe and environmentally responsible manner in accordance with 50 U.S.C. 2406, 2511 (codifying Executive Order 12344). Nuclear fuel handling is an intricate and intensive process requiring a complex infrastructure.

Proposed Action

NNPP is proposing to recapitalize the current naval spent nuclear fuel handling capabilities provided by the Expended Core Facility (ECF) located at the NRF on the INL. The purpose of the proposed action is to provide the infrastructure necessary to support the naval nuclear reactor defueling and refueling schedules required to meet the operational needs of the U.S. Navy. The proposed action is needed because significant upgrades are necessary to ECF infrastructure and water pools to continue safe and environmentally responsible naval spent nuclear fuel handling until at least 2060.

The transfer, preparation, and packaging of naval spent nuclear fuel are vital to the NNPP's mission of maintaining the reliable operation of the naval nuclear fleet and developing effective nuclear propulsion plants. Although ECF continues to be maintained and operated in a safe and environmentally responsible manner, the ECF structures, systems, and equipment necessary to accomplish the work of naval spent nuclear fuel handling need significant upgrades to continue safe and environmentally responsible naval spent nuclear fuel handling until at least 2060. Efforts are ongoing to sustain this infrastructure, preserve these essential capabilities, and ensure that the high NNPP standards for protecting the environment continue to be met. However, major portions of this infrastructure have been in service for over 50 years.

Alternatives

Consistent with the Record of Decision for on DOE/EIS-0203-F, naval spent nuclear fuel would continue to be shipped by rail from shipyards and prototypes to NRF for processing. To allow the NNPP to continue unload, transfer, prepare, and package

naval spent nuclear fuel for disposal, three alternatives were identified and analyzed in this Draft EIS.

1. No Action Alternative

   The No Action Alternative involves maintaining ECF without a change to the present course of action or management of the facility. The current naval spent nuclear fuel handling infrastructure would continue to be used while the NNPP performs only preventative and corrective maintenance. The No Action Alternative does not meet the purpose for the proposed action because it would not provide the infrastructure necessary to support the naval nuclear reactor defueling and refueling schedules required to meet the operational needs of the U.S. Navy. The No Action Alternative does not meet the NNPP's need because significant upgrades are necessary to the ECF infrastructure to continue safe and environmentally responsible naval spent nuclear fuel handling until at least 2060. As currently configured, the ECF infrastructure cannot support use of the new M-290 shipping containers. Significant changes in configuration of the facility and spent fuel handling processing locations in the water pool would be required to support unloading fuel from the new M-290 shipping containers. In addition, over the next 45 years, preventative and corrective maintenance without significant upgrades and refurbishments may not be sufficient sustain the proper functioning of ECF structures, systems, and components. Upgrades and refurbishments needed to support use of the new M-290 shipping containers and continue safe and environmentally responsible operations would not meet the definition of the No Action

Alternative; therefore, these actions are represented by the Overhaul Alternative.

The implementation of the No Action Alternative (i.e., failure to perform upgrades and refurbishments), in combination with the NNPP commitment to only operate in a safe and environmentally responsible manner, may result in ECF eventually being unavailable for handling naval spent nuclear fuel. If the NNPP naval spent nuclear fuel handling infrastructure were to become unavailable, the inability to transfer, prepare, and package naval spent nuclear fuel could immediately and profoundly impact the NNPP's mission and national security needs to refuel and defuel nuclear-powered submarines and aircraft carriers. In addition, the U.S. Navy could not ensure its ability to meet the requirements of the Settlement Agreement and its 2008 addendum.

Since the No Action Alternative does not meet the purpose and need for the proposed action, it is considered to be an unreasonable alternative; however, the No Action Alternative is included in the Draft EIS as required by CEQ regulations.

2. Overhaul Alternative

The Overhaul Alternative involves continuing to use the aging infrastructure at ECF, while incurring increasing costs to provide the required refurbishments and workaround actions necessary to ensure uninterrupted aircraft carrier and submarine refuelings and defuelings. Under the Overhaul Alternative, the NNPP would operate ECF in a safe and

environmentally responsible manner by continuing to maintain ECF while implementing major refurbishment projects for the ECF infrastructure and water pools. This would entail:

- Short-term actions necessary to keep the infrastructure in safe working order, including regular upkeep and sufficient to sustain the proper functioning of structures, systems, and components (e.g., the ongoing work currently performed in ECF to inspect and repair deteriorating water pool concrete coatings).

- Facility, process, and equipment reconfigurations needed for specific capabilities required in the future. These actions involve installation of new equipment and processes, and relocation of existing equipment and processes, within the current facility to provide a new capability (e.g., modification of ECF and reconfiguration of the water pool as necessary to handle M-290 shipping containers).

- Major refurbishment actions necessary to sustain the life of the infrastructure (e.g., to the extent practicable, overhaul the water pools to bring them up to current design and construction standards).

Refurbishment activities would take place in parallel with ECF operations for the majority of the Overhaul Alternative time period. The first 33 years of the 45 years (i.e., the refurbishment period) would include refurbishment

and operations activities being conducted in parallel. During certain refurbishment phases, operations could be limited due to the nature of the refurbishment activities (e.g., operations would not continue in water pools that are under repair). There would then be a 12-year period where only operational activities would take place in ECF (i.e., the post-refurbishment operational period).

Failure to implement this overhaul in advance of infrastructure deterioration would impact the ability of ECF to operate for several years. Further, overhaul actions would necessitate operational interruptions for extended periods of time.

3. New Facility Alternative

   A New Facility Alternative would acquire capital assets to recapitalize naval spent nuclear fuel handling capabilities. While a new facility requires new process and infrastructure assets, the design could leverage use of the newer, existing ECF support facilities and would leverage use of newer equipment designs. The facility would be designed with the flexibility to integrate future identified mission needs.

   Under the current budget and funding levels for the New Facility Alternative, it is anticipated that construction activities would occur over approximately a 3-year period.

   Construction of the New Facility Alternative would occur in parallel with ECF operations. An approximately two year period would follow the

construction of the New Facility Alternative when new equipment would be installed and tested, and training would be provided to qualify the operations workforce.

A new facility would include all current naval spent nuclear fuel handling operations conducted at ECF. In addition, it would include the capability to unload naval spent nuclear fuel from M-290 shipping containers in the water pool and handle aircraft carrier naval spent nuclear fuel assemblies without prior disassembly for preparation and packaging for disposal. Such capability does not currently exist within the ECF water pools, mainly due to insufficient available footprint in areas of the water pool with the required depth of water.

The NNPP will continue to operate ECF during new facility construction, during a transition period, and after the new facility is operational for examination work. To keep the ECF infrastructure in a safe working order during these time periods, some limited upgrades and refurbishments may be necessary. Details are not currently available regarding which specific actions will be taken; therefore, they are not explicitly analyzed as part of the New Facility Alternative. The environmental impacts from these upgrades and refurbishments are considered to be bounded by the environmental impacts described in the Refurbishment Period of the Overhaul Alternative.

Public Reading Rooms and Libraries

The Draft EIS is available for review at the following reading rooms:

Idaho Operations Office

Department of Energy

Public Reading Room

2251 N. Boulevard

Idaho Falls, ID 83402

Telephone: (208) 526-1185

Idaho Falls Public Library

457 W. Broadway

Idaho Falls, ID 83402

Telephone: (208) 612-8460

Shoshone-Bannock Library

Bannock and Pima Streets

P.O. Box 306

Fort Hall, ID 83203

Telephone: (208) 238-3882

Eli M. Oboler Library

Idaho State University

850 South 9th Avenue

Pocatello, ID 83209

Telephone: (208) 282-2958

Twin Falls Public Library

201 Fourth Avenue East

Twin Falls, ID 83301

Telephone: (208) 733-2964

Marshall Public Library

113 South Garfield

Pocatello, ID 83204

Telephone: (208) 232-1263

Boise Public Library

715 S. Capitol

Boise, ID 83702

Telephone: (208) 972-8200

Idaho Commission for Libraries

325 W. State Street

Boise, ID 83702

Telephone: (208) 334-2150

Latah County

Free Library District

110 S. Jefferson

Moscow, ID 83843

Telephone: (208) 882-3925

Public Hearings and Invitation to Comment

The NNPP invites Federal agencies; Tribal, State, and local governments; and the general public to comment on the Draft EIS. The NNPP will consider all comments received by August 10, 2015, and to the extent practical comments received after that date in the preparation of the Final EIS. NNPP will hold three public hearings on the Draft EIS:

- August 4, 2015, 6:00 p.m. to 9:00 p.m., Residence Inn, Idaho Falls, Idaho
- August 5, 2015, 6:00 p.m. to 9:00 p.m., Red Lion Hotel, Pocatello, Idaho
- August 6, 2015, 6:00 p.m. to 9:00 p.m., La Quinta Inn, Twin Falls, Idaho

NNPP will provide additional notification of the hearing times and locations through newspaper advertisements and other appropriate media.

At each hearing, NNPP will hold an open house for the first hour prior to beginning the formal portion of the hearing to allow participants to view informational materials, ask questions of NNPP representatives, and register to provide oral comments. The registration table will have a registration form to indicate mailing list preferences for future communications about the project and whether oral comments will be given. The public may provide written and/or oral comments at the hearings. Speakers may be asked to limit their oral comments to a certain time limit to be decided at the beginning of each of the public hearings so as to ensure that as many people as possible have the opportunity to speak.

Persons unable to attend these hearings may view informational materials by visiting the NNPP web site www.ecfrecapitalization.us.

Written comments on the Draft EIS also may be submitted to the addresses shown above under **ADDRESSES**.

Issued in Washington, DC on 15 June 2015**.**

John M. McKenzie
Director, Regulatory Affairs
Naval Nuclear Propulsion Program

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