



**Notice of Intent
To Prepare an Environmental Impact Statement
for the Recapitalization of Infrastructure Supporting
Naval Spent Nuclear Fuel Handling and Examination
at the Idaho National Laboratory**

AGENCY: DEPARTMENT OF ENERGY

ACTION: Notice of Intent to Prepare an Environmental Impact Statement; Notice of Public Meetings

SUMMARY:

Pursuant to 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 part 1500-1508), and the Department of Energy (DOE) implementing procedures (10 CFR 1021), the DOE Naval Nuclear Propulsion Program (NNPP) announces its intent to prepare an Environmental Impact Statement (EIS) for the Recapitalization of Naval Spent Nuclear Fuel Handling and Examination Facilities at the Idaho National Laboratory (INL). The NNPP intends to prepare an EIS for the recapitalization of infrastructure at the Expended Core Facility (ECF) at the INL in Idaho. This action supports the receipt, handling, examination, and packaging of naval spent nuclear fuel removed from nuclear-powered aircraft carriers and submarines, as well as from land-based prototype reactors, and the examination of other irradiated materials. Infrastructure recapitalization (e.g., new or improved facilities and equipment) is needed to ensure continued naval nuclear-powered operations and missions for at least the next 40 years. In addition, the recapitalized infrastructure will support the Navy's commitments, as identified in the 1995 Idaho Settlement Agreement (amended in June 2008), among the State of Idaho, the DOE, and the Navy. Three public scoping meetings will be held.

DATES:

NNPP invites interested parties to comment on the proposed scope of the EIS. NNPP will consider all comments received by September 3, 2010, and to the extent practical comments received after that date, in the preparation of the EIS.

The public meetings will address the scope of the planned EIS. For dates, times, and locations of public scoping meetings, see **SUPPLEMENTARY INFORMATION**.

ADDRESSES:

Written comments on the scope of the EIS may be submitted by mailing to:
Mr. Gregory F. Holden (08U-Naval Reactors)
Naval Sea Systems Command
1240 Isaac Hull Avenue, SE
Stop 8036
Washington Navy Yard, DC 20376-8036

Comments provided by E-Mail should be submitted to ecfrecapitalization@unnpp.gov and comments provided via phone should be made by calling 1-866-369-4802.

FOR FURTHER INFORMATION CONTACT: For further information about this project, contact Mr. Gregory F. Holden, as described above.

SUPPLEMENTARY INFORMATION:

The NNPP is responsible for all aspects of U.S. Navy nuclear power and propulsion. These responsibilities include design, maintenance, and safe operation of nuclear propulsion systems throughout their operational life cycles. A crucial component of this mission, naval spent nuclear fuel handling, occurs at the end of a nuclear propulsion system's useful life. Once a naval nuclear core is depleted, the NNPP is responsible for removal of the spent nuclear fuel through a defueling or refueling operation. Both operations remove the spent nuclear fuel from a reactor core, but a refueling operation also involves installing new fuel into the reactor core, allowing the nuclear-powered ship to be redeployed into the U.S. Navy fleet. After the naval spent nuclear fuel has been removed from an aircraft carrier or submarine, NNPP spent fuel handling includes the subsequent transfer, preparation, and packaging required for dry storage pending transportation of the fuel to a national geologic repository or interim storage site.

A second component of the mission is to support the design and maintenance of nuclear propulsion systems by providing for the examination of naval spent nuclear fuel and irradiated materials. This examination includes the receipt and unloading of the spent nuclear fuel; preparation of irradiated materials for examination using various visual, microscopic, and metallurgical techniques; and preparation of small fuel and non-fuel test samples for insertion into test reactors, where they are irradiated.

The NNPP ensures that naval spent nuclear fuel handling and examination are performed in a safe and environmentally responsible manner in accordance with 50 U.S.C. 2406, 2511 (codifying Executive Order 12344). Nuclear fuel handling and examination are intricate and intensive processes requiring a complex infrastructure. Naval spent nuclear fuel handling includes the transfer of spent nuclear fuel removed from a reactor to the ECF at the Naval Reactors Facility (NRF) at the INL, where it is received, unloaded, prepared, and packaged for disposal. Currently, naval spent nuclear fuel examination and the examination of some irradiated specimens are performed at the ECF. Examination of spent naval fuel and irradiated materials is essential to the mission of the Navy for three reasons: to provide data on current reactor performance, to validate models used to predict future performance, and to support research to improve reactor design.

The NNPP is proposing to recapitalize the existing ECF infrastructure at the INL. The purpose of the proposed action is to ensure the continued availability of the infrastructure needed to support the transfer, handling, examination, and packaging of naval spent nuclear fuel removed from nuclear-powered aircraft carriers and submarines, as well as from land-based prototype reactors, and the examination of other irradiated materials, for at least the next 40 years. This

action is needed because, although the ECF at the NRF, where this work is currently supported, continues to be maintained and operated in a safe and environmentally responsible manner, a significant portion of the ECF infrastructure has been in service for over 50 years. Deterioration of the ECF infrastructure could immediately and profoundly impact the NNPP mission, including the NNPP's ability to support refueling and defueling of nuclear powered submarines and aircraft carriers. The ECF capabilities to transfer, prepare, examine, and package naval spent nuclear fuel, and other irradiated materials are vital to the NNPP's mission of maintaining the reliable operation of the naval nuclear-powered fleet and developing militarily effective nuclear propulsion plants.

Consistent with the Record of Decision for the April 1995 *DOE Programmatic EIS for Spent Nuclear Fuel Management (DOE/EIS-0203-F)*, naval spent nuclear fuel is shipped by rail from shipyards and prototype facilities to NRF for examination and processing. After processing, naval spent nuclear fuel is transferred into dry storage containers and placed into temporary storage at NRF, prior to off-site transfer consistent with the Record of Decision for the November 1996 *Navy EIS for a Container System for Management of Naval Spent Nuclear Fuel (DOE/EIS-0251)*. Ongoing efforts to sustain the infrastructure needed to transfer, prepare, examine, and package naval spent nuclear fuel will preserve these essential capabilities and ensure that the NNPP high standards for protecting the public and the environment continue to be met. Facility age, however, is expected to cause a growing maintenance burden and increase the likelihood of unacceptable workflow interruptions that could adversely impact the fleet.

The NNPP proposes to recapitalize the infrastructure for transferring, preparing, examining, and packaging naval spent nuclear fuel and other irradiated materials, to ensure these capabilities are maintained for the vital NNPP mission of supporting the naval nuclear-powered fleet. The recapitalization is expected to be carried out as two projects. The first project will be the Spent Fuel Handling Recapitalization Project; the second project will be the Examination Recapitalization Project. The Spent Fuel Handling Recapitalization Project will ensure that interfaces and exchanges between handling and examination are factored into detailed designs, to ensure that both projects can be carried out in an environmentally responsible and cost-effective manner.

The proposed EIS will consider the environmental effects related to siting and construction of new facilities for both of the Recapitalization Projects. The NNPP proposes to evaluate three siting combinations, along with a No-Action Alternative.

Alternative 1 – Locate the Spent Fuel Handling Recapitalization Project and the Examination Recapitalization Project at the NRF at the INL.

Alternative 2 – Locate the Spent Fuel Handling Recapitalization Project at the NRF and the Examination Recapitalization Project at the Advanced Test Reactor Complex at the INL.

Alternative 3 – Locate the Spent Fuel Handling Recapitalization Project at the NRF and the Examination Recapitalization Project at the Materials and Fuels Complex at the INL.

No-Action Alternative – Overhaul the ECF. Overhauling includes continuing to repair, maintain, refurbish, and upgrade the ECF as necessary to provide the needed long-term capabilities for transferring, examining, preparing, and packaging naval spent nuclear fuel.

Within each of these alternative sites, there are a number of practical locations for facility placement. These location options will also be addressed in the EIS. NNPP proposes to address the issues listed below when considering the potential impacts of the proposed alternatives in the EIS. This list is presented to facilitate public comment during the scoping period and is not intended to be comprehensive, or to imply any predetermination of impacts. Issues include:

- Potential impacts of emissions on air and water quality.
- Potential impacts on plants, animals, and their habitats, including species that are listed by either State or Federal government as threatened, endangered, or of special concern.
- Potential impacts from postulated accidents, as well as potential impacts from acts of terrorism or sabotage.
- Potential effects on the public health from exposure to hazardous materials or radiological releases under routine operations.
- Potential safety and health impacts to workers.
- Impacts on cultural resources, such as historic, archeological, and Native American culturally important sites.
- Socioeconomic impacts to the potentially affected communities.
- Compliance with applicable Federal and state regulations.
- Potential disproportionately high and adverse effects on low-income and minority populations (environmental justice).
- Cumulative impacts.

NEPA implementing regulations require an early and open process for determining the scope of an EIS and for identifying the significant issues related to the proposed action. Accordingly, NNPP invites Federal agencies; Tribal, State, and local governments; and the general public to comment on the scope of the planned EIS including identification of reasonable alternatives and specific issues that should be addressed. NNPP will hold three public scoping meetings to provide information on the Spent Nuclear Fuel Handling and Examination Recapitalization Projects and to solicit public concerns and comments. Dates, times, and locations for these meetings are as follows:

August 24, 2010

6:00 pm – 9:00 pm

Shilo Inn

780 Lindsay Blvd.

Idaho Falls, ID 83404

August 25, 2010

6:00 pm – 9:00 pm

Red Lion

1555 Pocatello Creek Road

Pocatello, ID 83201

August 26, 2010

6:00 pm – 9:00 pm

Canyon Springs Red Lion

1357 Blue Lakes Blvd. North

Twin Falls, ID 83301

Persons unable to attend these meetings may view meeting information by visiting the NNPP web site www.ecfrecapitalization.us. NNPP will provide additional notification of the meeting times and locations through newspaper advertisements and other appropriate media.

At each scoping meeting, NNPP plans to hold an open house for the first hour prior to beginning the formal portion of the meeting to allow participants to register to provide oral comments and view informational materials. The registration table will have an oral comment registration form as well as a sign-up sheet for those who do not wish to give oral comments but who would like to be included on the mailing list to receive either printed or electronic information about the project in the future. The public may provide written and/or oral comments at the scoping meetings.

All public comments received during the scoping meetings, as well as those submitted as described above, will be considered during the development of the EIS.