

**DEPARTMENT OF DEFENSE
DEPARTMENT OF THE NAVY
FINDING OF NO SIGNIFICANT IMPACT (FONSI) FOR ENVIRONMENTAL
ASSESSMENT (EA) ON THE DISPOSAL OF DECOMMISSIONED, DEFUELED,
NAVAL REACTOR PLANTS FROM USS ENTERPRISE (CVN 65)**

Pursuant to the Council on Environmental Quality regulations (40 Code of Federal Regulations [CFR] Parts 1500-1508) implementing the National Environmental Policy Act (NEPA), Department of Navy Policies and Responsibilities for Implementation of NEPA (32 CFR 775), and Chief of Naval Operations Instruction (OPNAVINST) 5090.1C CH-1, the Department of the Navy (Navy) gives notice that an EA has been prepared and that an Environmental Impact Statement (EIS) is not required for the Disposal of Decommissioned, Defueled, Naval Reactor Plants from USS ENTERPRISE (CVN 65). The Department of Energy Hanford Site (Hanford) is a cooperating agency for this EA and supports the preferred alternative of this EA and this finding.

Proposed Action:

The United States Navy proposes to remove the reactor compartments from USS ENTERPRISE (CVN 65), at Puget Sound Naval Shipyard & Intermediate Maintenance Facility (PSNS & IMF), prepare the reactor compartments for disposal as reactor compartment packages, recycle the remnant hull sections, and transport the reactor compartment packages to Trench 94 for disposal at the Department of Energy Hanford Site (Hanford). ENTERPRISE is expected to arrive at PSNS & IMF, at Bremerton, Washington, already defueled and under tow, in about 2017. Upon arrival at PSNS & IMF, reactor compartment disposal of ENTERPRISE would require about six to eight years to complete.

Alternatives Analyzed:

Under the preferred alternative, the reactor compartments from ENTERPRISE would be removed from the ship, packaged, and transported to Trench 94 at Hanford, which has received reactor compartments from the 114 nuclear powered ships that have been similarly processed at PSNS & IMF under the Navy's ongoing program since 1986. This program was first described in the Final Environmental Impact Statement on the Disposal of Decommissioned, Defueled Naval Submarine Reactor Plants, United States Department of the Navy, May 1984 and updated and expanded in the Final Environmental Impact Statement on the Disposal of Decommissioned, Defueled Cruiser, Ohio Class, and Los Angeles Class Naval Reactor Plants, United States Department of the Navy, April 1996 (USN 1996). In parallel with the above work, the Navy recycles the remnant sections of ship hull at PSNS & IMF, totaling 114 ships to date. This program supports the efficient completion of the preferred alternative and was initiated for submarine hulls by the Environmental Assessment of the Submarine Recycling Program at Puget Sound Naval Shipyard, United States Department of the Navy, June 1993. Subsequent reviews for surface ship hull recycle, including ENTERPRISE, have concluded that there would not be a significant change from the current recycle program.

The preferred alternative would require about six to eight years to complete. The eight reactor compartment packages produced would look similar in size and weight to those of the cruiser LONG BEACH evaluated in USN 1996 and would be handled similarly. Radionuclide content of the ENTERPRISE reactor compartment packages would be towards the lower end of radionuclide content in the reactor compartment packages evaluated in USN 1996 and would not add substantially to the total radionuclide content discussed in USN 1996. The total number of reactor compartment packages at Trench 94 would remain within the 220 reactor compartment packages evaluated cumulatively for Trench 94 and thus groundwater migration studies discussed in USN 1996 would not be affected. The preferred alternative is estimated to cost about 400 - 500 million dollars (circa 2010) with 300 rem of collective PSNS & IMF worker exposure (0.1 latent cancer fatality) incurred, but this exposure is spread through the workforce qualified to perform the work such that employees should not receive more than 0.5 rem per year of radiation exposure.

A No Action alternative would place ENTERPRISE at a long term storage facility for nuclear powered ships (Mooring Alpha) located at Bremerton, Washington. This would happen only if the preferred alternative above could not occur. About 11 million dollars would be required to construct and install structures needed for moorage of the ship and additional cost will be required for support services and periodic ship maintenance. This alternative delays reactor compartment disposal and is not preferred.

Existing Conditions:

PSNS has been in operation as a naval shipyard at its present location for over 100 years. PSNS & IMF is responsible for performing authorized work in connection with ship conversion, overhaul, repair, alteration, dry-docking, and outfitting. It is the single maintenance provider for all Navy ships operating and home ported in the Puget Sound area. PSNS & IMF is a major tenant of Naval Base Kitsap at Bremerton, Washington. Naval Base Kitsap is the largest naval organization in Navy Region Northwest and is composed of installations in Bremerton, Bangor, and Keyport. Naval Base Kitsap encompasses 344 acres of land, 336 acres of submerged marine lands, 382 buildings, six dry docks, and 13 moorings and piers. The eastern portion of the naval base is a fenced, high security area known as the Controlled Industrial Area (CIA), which defines the PSNS & IMF operating area. The CIA is bordered on the south by Sinclair Inlet, and on the north and east by the city of Bremerton. Reactor compartment disposal, up to shipment of the reactor compartment packages and remnant hull recycle, would be conducted within the CIA of PSNS & IMF at Bremerton. There would be no significant changes in use of this area from the industrial operations that have been conducted therein for decades.

The majority of PSNS & IMF is developed and covered with impervious surface (including industrial work areas). Most of the remaining, non-contiguous, undeveloped areas are also disturbed and typically landscaped with a mix of ornamental and native trees and shrubs and lawn.

Trench 94 is within the 218-E-12B burial ground at the Hanford Site and is used for the disposal of decommissioned, defueled reactor compartment packages from pre-LOS ANGELES Class submarines, LOS ANGELES Class submarines, OHIO Class submarines, and cruisers. Trench 94, has been in operation since 1986, and contained 123 reactor compartment packages as of October 2011.

Environmental Effects:

The proposed action would have a negligible incremental effect to the environment surrounding PSNS & IMF, the transport route, and at the disposal site, relative to operations ongoing at PSNS & IMF, along the transport route, and at Hanford. The preferred alternative would represent less than historic peak reactor compartment disposal workloads at PSNS & IMF. This work is expected to be performed within the shipyard's available resources (manpower, facilities, etc.) and existing permitted discharges. Operations at PSNS & IMF, an industrial naval shipyard, are considered to be consistent to the maximum practical extent with local and state shoreline management requirements, and the Coastal Zone Management Act.

The eight ENTERPRISE reactor compartments, when packaged, would be of similar size, shape, weight and content to those from the cruiser LONG BEACH, as analyzed in USN 1996. The preparation and transport of the reactor compartment packages will substitute for other reactor compartment disposal work evaluated in USN 1996 that would be deferred to accommodate ENTERPRISE. Placement of the ENTERPRISE reactor compartment packages at Trench 94 would not affect groundwater migration studies for Trench 94 that support disposal of reactor compartment packages at Hanford. The ENTERPRISE reactor compartment packages fit within the envelope of reactor compartment packages assumed for the trench and the total number of reactor compartment packages assumed for the trench in these studies.

Public Comment:

Comments were received from three individuals, the Washington State Department of Ecology (Ecology), Environmental Protection Agency (EPA) Region 10, and Suquamish Tribe.

Ecology agreed that the analysis in the draft EA was consistent with USN 1996 and asked for various clarifications to note that chromate solution removed from ENTERPRISE will not be a mixed waste after processing, to note that monitoring at Hanford is done by the Mission Support Alliance contractor, to clarify the tiering of this EA to USN 1996 by stating that future reactor compartment packages considered under NEPA that are outside the envelope defined in USN 1996 would require a supplemental EIS, to update census and environmental reporting data, to include discussion of lead migration modeling from the Department of Energy (DOE) draft Tank Closure & Waste Management (TC&WM) EIS of October 2009 (DOE 2009), and to state DOE responsibility to maintain a performance assessment for the burial site. Ecology also requested that cumulative analysis in the EA not consider the importation of off-site wastes into Hanford that are considered in DOE 2009 as such wastes are currently not

allowed at Hanford by agreement with the state of Washington but were considered in DOE 2009. The final EA incorporates these requests. An Ecology comment to reference a final DOE TC&WM EIS vice DOE 2009 was not incorporated as the final DOE EIS will not be available in time to support the final ENTERPRISE EA.

The EPA stated that they had no objection to the proposed action and suggested that the final EA include information on applicable federal, state, and local government permits for the project. The final EA now includes discussion of standing permits that support PSNS & IMF operations (and the preferred alternative as part of PSNS & IMF operations) and the transport of reactor compartment packages.

The Suquamish tribe asked for clarification on the potential for bottom scour from ENTERPRISE propellers/anchors during docking at PSNS & IMF and possible effects to tribal fishing activity. The final EA clarifies that these effects are not expected due to the ship's anchors and propellers being inoperative (not used during docking), the depth of the water at the dock, and the lack of eelgrass and kelp species in the docking area. Ongoing fishing activity would only be affected temporarily to allow the ship to transit the area approaching PSNS & IMF and open and close the floating security barrier around PSNS & IMF. A bathymetric figure of waters around PSNS & IMF was also added.

The individual comments received involved clarifying the regulatory status of wool felt sound damping material, defueling ENTERPRISE at PSNS & IMF vice Newport News, and using the ship's reactors for public power generation. The latter two comments were not considered within the scope of the EA and are infeasible.

Finding: Based on the analysis presented in the EA, the Navy finds that implementation of the Preferred Alternative will not significantly impact the quality of the human or natural environment, and preparation of an EIS is not required.

The EA prepared by the Navy addressing this action is on file and interested parties may obtain a copy from: Public Affairs Office (Code 1160), Bldg. 850, 5th floor, Puget Sound Naval Shipyard and Intermediate Maintenance Facility, 1400 Farragut Ave., Bremerton, WA, 98314



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Date