

scheduled to be conducted in approximately 42 months (Ref. 1).

BWXT's specific objectives in the FSSP and the DP are to demonstrate that:

- The residual contamination in IWL1, after removal of material from Trench 2 and part of Trench 3, meets the criteria in Option 1 or Option 2 of BTP, "Disposal or Onsite Storage of Thorium or Uranium Wastes from Past Operations" (SECY 81-576)(NRC 1981).
- The environmental impact of any contamination above background poses no significant risk to the environment or the general public, and
- The buried material will remain in place under Option 2 of the BTP criteria.

BWXT has no plans at this time to release IWL1 from its NRC license. At the time of license termination for the entire BWXT site, the results of the area final status survey will be reassessed in order to include any possible dose contribution from the IWL1 in the dose assessment for the entire site and any impacts from possible recontamination of the IWL1.

1.4 Need for Proposed Action

The need for this proposed action is to allow BWXT to dispose of contamination in IWL1 so as to be able to demonstrate that levels of radioactive contamination in IWL1 will satisfy NRC requirements for complying with 10 CFR 70.38.

1.5 Alternatives to the Proposed Action

NRC considered two alternatives to the proposed action. These are described below.

Alternative 1—No action

This alternative is to leave the site in its current, contaminated condition. Leaving the site in this condition would not comply with NRC regulations that require remediation of unused outdoor areas. Therefore, this alternative is not acceptable.

Alternative 2—Excavate the entire IWL1

This alternative would require the licensee to recover and dispose of all of the material in the landfill. The NRC has concluded that this alternative is not preferable for the following reasons:

- This option is more disruptive to the environment due to more disturbance of the soil; and
- the soil which is not contaminated (below the cleanup criteria) will have to be sent to a municipal landfill which has the same environmental impacts as leaving it in place.

2.0 Affected Environment

The affected environment is the BWXT site. A full description of the site and its characteristics is given in the 1991 EA for renewal (Ref. 3). The BWXT facility is located on a 525 acre (2 km²) site in the northeastern corner of Campbell County, approximately 5 miles (8 km) east of Lynchburg, VA. This site is located in a generally rural area, consisting primarily of rolling hills with gentle slopes, farm land, and woodlands.

3.0 Environmental Impacts of the Proposed Action

3.1 Radiological Impacts

Excavated material from Trenches 2 and 3 will be shipped to a licensed disposal facility. The licensee's radiological protection program, which is described in SNM-42, requires use of hazardous work permits and safety procedures that will limit doses to workers to less than or equal to the limits in 10 CFR part 20.

Minor spills and/or releases may occur as contaminated soil is being prepared for shipment or during transport to an offsite disposal facility. However, considering that the majority of the waste stream expected to be generated during decommissioning comprises contaminated soil, these incidents would pose only negligible impact to human health and the environment. In the event of a spill of this nature, decontamination efforts and any required notification would be performed in accordance with the BWXT procedures.

Residual concentrations of radionuclides in soil will be in compliance with the approved levels in the BTP. Using the conservative resident farmer scenarios, the RESRAD computer program calculates the radiological impact from the residual contamination to be approximately 25 mrem/yr to the resident.

3.2 Non-Radiological Impacts

Portions of the site, primarily the groundwater, are contaminated with solvents (PCE, TCE, etc.) from previous BWXT activities. These materials are the subject of an EPA and TDEC RCRA/ HSWA Permit requiring investigation and remediation to EPA and Virginia standards in a timeframe agreed upon among EPA, Virginia Department of Health and BWXT. Therefore they are not addressed in this EA.

3.3 Historical and Archaeological Resources

The only historic site on the National Register of Historic Places near the

facility (within 5 miles) is the 19th century Mt. Athos Plantation, which is across the Mt. Athos Road to the east.

The proposed action is not expected to adversely affect historic properties. The staff consulted the State of Virginia Liaison Officer for Historic Preservation and no comments were provided.

3.4 Biota

The bald eagle (*Haliaeetus leucocephalus*) is listed as a federally threatened species in Campbell County.

One vascular plant, the smooth coneflower (*Echinacea laevigata*) is listed as a federally endangered species, and two vascular plants, the sweet pine sap (*Monotropsis odorata*) and the Torrey's mountain-mint (*Pycnanthemum torrei*), are listed as species of concern in Campbell County.

Two fish, the orangefin madtom (*Noturus gilberti*) and the bigeye jumprock (*Scartomyzon ariommus*), are listed as species of concern in Campbell County.

The U.S. Fish and Wildlife Service, Virginia Field Office determined that the proposed action will not have adverse impacts on threatened or endangered species, or their habitat.

3.5 Water Resources

Surface water is not expected to be impacted from approval of this amendment application. There will be no direct effluent discharges to surface water as a result of the proposed activity. Surface water is expected to continue to be protected from site activities through release limits and monitoring programs, as required by the National Pollutant Discharge Elimination System permit, which is regulated by the State.

Groundwater quality is not expected to be impacted by this operation. There will be no discharges to soils or surface water that could result in groundwater contamination from the proposed activity, and no withdrawals from groundwater wells which would drawdown the water table.

3.6 Construction Impacts

No building construction will occur in this action. Therefore construction impacts are not applicable.

3.7 Impacts to Aesthetic, Economic, Cultural, Social, Air Quality, and Noise Resources

There will be no discernable impacts on aesthetics, socio-economics or cultural resources because the work is being done by existing staff and the physical configuration of the facility will remain the same as currently.