1.0 Purpose and Need for Agency Action

The U.S. Department of Energy (DOE) needs to take action to: retrieve transuranic (TRU) waste because interim storage waste containers have exceeded their 20-year design life and could fail causing a radioactive release to the environment; provide storage capacity for retrieved and newly generated TRU, Greater-than-Category 3 (GTC3), and mixed waste before treatment and/or shipment to the Waste Isolation Pilot Project (WIPP); and upgrade the infrastructure network in the 200 West Area to enhance operational efficiencies and reduce the cost of operating the Solid Waste Operations Complex (SWOC).

1.1 Background

In the Record of Decision (ROD) (53 Federal Register (FR) 12449, 1988) for the *Final Environmental Impact Statement: Disposal of Hanford Defense High-Level, Transuranic and Tank Wastes, Hanford Site, Richland, Washington* (HDW-EIS) (DOE 1987), DOE determined it would retrieve and process all TRU and suspect TRU waste that has been retrievably stored at the Hanford Site since 1970. This Environmental Assessment (EA) will tier-down from the HDW-EIS ROD.

The processing of the retrieved TRU and suspect TRU wastes would occur in the Waste Receiving and Processing (WRAP) Facility and is not included in the scope of this EA.

Since May 1970, solid waste classed as or suspected of being TRU waste has been designated as TRU waste. In 1973, the official level for segregation and storage became 10 nanocuries TRU per gram (Nci TRU/g) of waste. In 1984, the basis for classification as TRU waste was established as 100 Nci TRU/g and remains the designated level today. As a result of these administrative changes, not all retrievably stored waste will be designated as TRU by the current definition. Wastes under 100 Nci TRU/g is characterized as low-level waste (LLW). The retrieved waste would be assayed to determine whether the waste is TRU or LLW.

Retrieval of TRU waste from trenches would be accomplished in phases. This EA considers the retrieval of TRU and suspect TRU waste containers from trench 4C-T04. This trench contains approximately 15 percent by volume of the total retrievably stored TRU waste on the Hanford Site and has waste containers expected to be in better physical condition because they have been stored the shortest length of time. A future activity would remove the balance of the retrievably stored TRU waste. Lessons learned from this retrieval activity would be incorporated into the design of future retrieval activities.

The SWOC is a series of existing and planned treatment, storage, or disposal (TSD) units for solid waste operations in the 200 West Area. At present, administrative and operations personnel are scattered around the Hanford Site. Centralized administration and operation facilities would improve Solid Waste operational efficiencies and reduce costs by minimizing travel times.