

except the pillar and panel tanks) would be full of mixed transuranic waste in approximately 2017. Other facilities depending on the capacity of the Tank Farm for operation eventually would be shut down due to their inability to discharge liquid waste. Under this alternative, DOE would not meet its commitment to cease use of the Tank Farm by 2012 *or* to make its mixed HLW road ready by 2035.

Facilities required for the No Action Alternative include the bin sets, which would continue to store the mixed HLW; the Tank Farm, which would continue to store the mixed transuranic waste; the High-Level Liquid Waste Evaporator, which would continue to concentrate mixed transuranic waste/SBW; and the Process Equipment Waste Evaporator and the Liquid Effluent Treatment and Disposal Facility which would continue to evaporate mixed transuranic waste (newly generated liquid waste). The major facilities and projects required to implement the No Action Alternative are listed in Appendix C.6.

3.1.2 CONTINUED CURRENT OPERATIONS ALTERNATIVE

Under this alternative (Figure 3-2), current operations of all existing waste facilities and processes would continue, including the New Waste Calcining Facility, High-Level Liquid Waste Evaporator, Process Equipment Waste Evaporator, Liquid Effluent Treatment and Disposal Facility, Remote Analytical Laboratory, Tank Farm, *and* bin sets. The New Waste Calcining Facility calciner *which was* placed in standby in *May* 2000, in accordance with the Notice of Noncompliance Consent Order, *would be* upgraded to comply with the Maximum Achievable Control Technology air emissions requirements. The upgrades would be completed by 2010. The *Process Equipment Waste and* High-Level Liquid Waste Evaporators would continue to operate to allow the pillar and panel tanks to be taken out of service in 2003. The upgraded New Waste Calcining Facility calciner would operate from 2011 through 2014 to process the remaining liquid mixed transuranic waste/SBW.

After 2014, the New Waste Calcining Facility calciner would operate as needed until the end of

2016. Beginning in 2015, the mixed transuranic waste (newly generated liquid waste) would be processed through a cesium ion exchange column, evaporated, and grouted for disposal. The cesium-loaded resin would be dried and stored in the bin sets.

Mercury removed directly from the offgas system and treated would be disposed of as mixed low-level waste. Mercury returned to the Tank Farm from the offgas system during operation of the calciner would be treated with the tank heels and sent to the Waste Isolation Pilot Plant for disposal.

As described for the No Action Alternative, the calcine in bin set 1 would be transferred to bin set 6 or 7, or modifications would be made to mitigate stress on bin set 1. The requirement to treat all the HLW so that it would be ready for shipment out of Idaho by 2035 would not be met since the calcine would remain indefinitely in the bin sets.

The major facilities and projects required to implement the Continued Current Operations Alternative are listed in Appendix C.6, except for transportation projects, which are addressed in Appendix C.5.

3.1.3 SEPARATIONS ALTERNATIVE

The fundamental feature of the Separations Alternative is the use of chemical separation methods to divide the HLW into two primary final waste streams: a high-level waste fraction suitable for disposal in a geologic repository and a low-level waste fraction suitable for near-surface disposal at the INEEL or another permitted facility. Separating the waste decreases the amount of waste that has to be shipped to a geologic repository, saving needed space and reducing disposal costs. Also, some costs and risks associated with transportation of radioactive materials to a repository would be decreased. The characteristics and classification of the high-level and low-level waste fractions would vary with the type of separations processes that are used. Because HLW would be separated into fractions, DOE would need to *perform a waste incidental to reprocessing citation or evaluation determination, before undertaking the separations process, to determine if the waste frac-*