

Oak Ridge National Laboratory Lead Solder Management and Recycling Efforts

The Oak Ridge National Laboratory (ORNL) Fusion Energy Division (FED) and Engineering Sciences and Technology Division (ESTD) both perform soldering operations and both identified the reduction of the volume of resulting lead-contaminated waste as part of its 2007 Environmental Management System objectives and targets. Both organizations implemented similar activities to address their objectives and targets. FED and ESTD implemented systematic initiatives during which its operations were initially observed. Based on these observations, FED and ESTD both revised their management of lead solder scrap.



Example of Lead Solder Station

Each soldering station has clearly labeled closed collection containers to collect any pieces of soldering wire or hardened drips. These pieces are usable in the soldering operations. If the operator decides that the pieces are no longer of use, they are sent to a central collection location for recycling.

Consequently, these FY 2007 initiatives:

- collected 5.5 kilograms (kg) of lead materials to be sent to the ORNL Lead Shop for recycling and reuse
- eliminated the generation of approximately 6.3 kg of hazardous waste
- resulted in an approximate cost avoidance of \$275.



Example of Reusable Lead Solder-Scrap Metal