

NSLS Environmental Awareness for Lead (Course Material)

LS-ENV-LEAD

Instructions: Read the material below and then close this document. You will receive credit for training through the BNL training system.

Course Objective: Cutting or machining lead in the NSLS machine shops needs to be carefully controlled to prevent exposures to personnel and to ensure that lead wastes are properly handled. This training is provided to ensure that machining of lead is conducted in compliance with environmental and safety requirements. The contents of this training have been extracted from the NSLS PRM and BNL Subject Areas.

Description of Significant Environmental Aspect: Machine shop operations involving lead create hazardous wastes other than the lead itself, such as personal protective equipment (e.g. gloves), machine coverings, mop water, oil, and oily rags that become contaminated with lead during the process. These wastes must be properly handled to ensure compliance with federal regulations.

Training Requirements: Managers of shops involved in the machining of lead are required to read and sign this form and to take RCRA Hazardous Waste Generator training. Shop users who machine lead are required to read and sign this form. All personnel involved in lead handling must complete the BNL Lead in the Workplace course.

Operational Controls: **ALL LEAD BRICK CUTTING MUST BE DONE IN THE MACHINE SHOP IN BLDG. 726 OR THE USER MACHINE SHOP IN BLDG. 725, using band saws in those shops designated for lead cutting. Contact the Shop Manager before starting any lead cutting in one of the shops. Exceptions are allowed and shall be covered by a Work Permit.**

- A coarse-toothed blade operating at low speed is best for minimizing airborne lead during cutting. Operations of less than 2 hours in length do not require respirators or other ventilation controls
- Personnel cutting lead must wear protective clothing and gloves (apron or cloth lab coat).
- The band saw must be cleared of debris before cutting any lead to isolate the lead scrap and shavings from other metals.
- Oil or oily rags contaminated with lead are RCRA hazardous waste and must be labeled with a red hazardous waste label.
- Waste from the shop vacuum used to pick-up lead chips and lead dust shall be managed as a hazardous waste when the vacuum is emptied. Only the dedicated lead HEPA filtered vacuum shall be used for clean up.
- Lead-contaminated clothing and surface-covering materials must be disposed of through BNL Waste Management Division as RCRA Hazardous Waste.
- Lead scrap is recycled through BNL Central Shops. All lead scrap should be placed in the plastic container labeled "Lead Scrap for Recycling" located in the 725 and 726 machine shops. This collection is for lead only; be careful not to place any other materials in the lead container. Close the container when done.
- Water and mop heads used for mopping Lead Work Area floors or the floor under a band saw used for cutting lead must be disposed as RCRA Hazardous waste. Dispose of the water in the dedicated 55-gallon drum located by the NSLS Stock Room.
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Your Role and Responsibility: You are responsible for the safe machining of lead and the proper management of your waste. If you are ever in doubt regarding the proper course of action, contact your supervision or a member of the NSLS ESH Staff for advice.

Potential Regulatory and Environmental Impacts: Mismanagement of waste can result in violations of RCRA hazardous waste regulations. BNL is subject to fines and penalties for such violations, and is responsible for the clean-up costs associated with any required remediation.

Pollution Prevention and Waste Minimization: Make sure that all scrap lead you produce is collected and deposit it in the proper container for recycling. Make every effort to prevent the generation waste oils and oily rags that are contaminated with lead.