

NSLS Environmental Awareness for Crystal Cutting (Course Material)

LS-ENV-CRYSTAL-CUT

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

Course Objective: A significant environmental aspect is associated with crystal cutting. This course has been designed to provide you with the job-specific information that you need know to protect the environment and to meet Laboratory and Government regulations for handling the waste streams produced by this operation. The contents of this training have been extracted from the NSLS PRM and BNL Subject Areas.

Description of Significant Environmental Aspect: NSLS crystal cutting operations utilize cutting oil and various cleaners. The oily wastes produced from the operations are industrial wastes. Industrial waste is non-RCRA hazardous waste that is banned from disposal to the regular trash by Federal and State regulations.

Training Requirements: Staff members performing crystal cutting are required to read this form. The supervisor is required to take RCRA Hazardous Waste Generator training.

Operational Controls:

- Waste cutting fluids are to be disposed of in the dedicated 55-gallon drum located in the Crystal Cutting area. This drum shall be labeled with a green, non-hazardous waste label. Water used to clean the cutting wheel shall also be collected in this drum for disposal.
- Oily rags, including rags used to clean the cutting wheel, are to be collected in a fire-proof container. The container shall be labeled with a green, non-hazardous waste label. When collected, the rags are to be bagged in a clear plastic bag, labeled with a green non-hazardous waste label and brought to the 90-day area for disposal when full.

Response to Leaks/Spills: Take prompt action to prevent spills from discharging to floor drains or sinks if you are familiar with the hazards involved and feel comfortable doing so. Contact the NSLS Control Room Operator (x2550). Any discharge to a drain, or to the outdoors, must be reported to the Lab emergency response number (x2222) and to the NSLS Control Room Operator (x2550).

Your Role and Responsibility: You are responsible for the proper management of your waste and to take prompt action in the event of spills. If you are ever in doubt regarding the proper course of action, contact your supervision or a member of the NSLS ESH Staff.

Potential Regulatory and Environmental Impacts: Mismanagement of waste can result in violations of RCRA hazardous waste regulations. Discharge of oils and other chemicals to drains can result in violations of BNL release limits. Both can ultimately result in contaminated soil or groundwater. BNL is subject to fines and penalties for such violations, and is responsible for the clean-up costs associated with any required remediation. BNL has also suffered poor public perception due to poor waste management practices and contamination events in the past. Proper management of waste and spills will improve our relationship with regulators and the public.

Pollution Prevention and Waste Minimization: Please offer suggestions and comments to your supervision about pollution prevention and waste minimization. Disposal of hazardous waste is costly and time consuming. Please make every effort to minimize the quantity of chemicals you bring to the NSLS and the quantity of waste materials generated.