

## Job Specific Environmental Awareness Training – Photographic Darkroom Operations

LS-ENV-PHOTO 051004 K:\erothman\EMS\photo\tr-photo.doc

**Course Objective:** NSLS photographic darkroom operations generate hazardous and industrial wastes which have been designated as significant environmental aspects for the NSLS and are subject to specific controls. This course has been designed to provide you with the information that you need know to protect the environment and to meet Laboratory and Government regulations for handling these wastes. The contents of this training have been extracted from the NSLS PRM and BNL Subject Areas.

**Training Requirements:** All personnel using an NSLS photographic darkroom must complete this Environmental Awareness Training by reading and signing this page. Darkroom managers must also complete RCRA Hazardous Waste Generator training.

**Operational Controls:** Spent stop bath and spent developer are industrial wastes. Spent fixer is a RCRA hazardous waste because of its silver content. The rinse water from the static rinse is a RCRA hazardous waste. All of these wastes must be stored in separate containers near their point of generation in the darkroom Satellite Accumulation Area (SAA) until ready for transfer to the NSLS 90-day Storage Area. Wastes stored in a Satellite Accumulation Area must meet the following requirements.

- Waste containers must be closed at all times except when making additions.
- Containers must be labeled to identify the contents as waste (labels are available in the 90-day Storage Area).
- The container must be kept in one of the SAA secondary containment trays and kept away from sinks or drains.
- Incompatible materials may not be stored in the same tray.
- Decisions about mixing must be made in consultation with the NSLS Deputy Safety Officer.

The Darkroom Manager will transfer wastes from the SAA to the NSLS 90-Day Storage area when containers are full.

**Response to Leaks/Spills:** If any material is spilled, take prompt action to prevent entry to floor drains or sinks. All spills should be reported to the NSLS Control Room (2550). Any discharge to a drain or sink must also be reported to the Lab emergency response number (x2222).

**Your Role and Responsibility:** As a user working in a photographic darkroom, it is important that you follow the procedures and other instructions established by NSLS and take prompt action in the event of spills. Be attentive to the information available through postings, email, and on the web and seek help when needed. The Darkroom Manager should be contacted with any questions.

**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:** Disposal of wastes 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.

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Print Name

Sign Name

Life Number

Date

Signature conveys that you have read and understand this information.

## NLS Environmental Management Training

**Background:** Environmental and hazardous waste management regulations are among the most sensitive and visible issues in the American society. At BNL, these regulations are indisputably the most sensitive topic within the ESH arena since environmental releases and the perception of poor waste handling practices were at the heart of the AUI discharge by DOE and in the development of the strong management emphasis on these issues. In light of the high visibility and sensitivity to these issues, BNL management committed to the development of an Environmental Management Program that met all the requirements of ISO 14001, an international organization which has adopted standards for many types of programs, including environmental management.

A key issue within ISO 14001 is the identification of all activities at a facility that are associated with significant environmental aspects. All activities involving a significant aspect are to be managed and controlled to ensure that no adverse environmental impact results. As a part of that program, all personnel whose work involves a significant environmental aspect<sup>1</sup> will be provided specific environmental awareness training relating to their duties.

There are several work activities at NLS that are involved with our facilities' significant environmental aspects. These activities are:

- Regeneration of process water mixed bed deionizing and Cooling Water System Maintenance
- Machine shop operations
- Photographic dark room operations
- Vacuum pump maintenance
- Electrical/Mechanical Equipment Maintenance
- Experimental Program
- 90 Day/Satellite Area Operation
- Silicon Crystal Etching & Cutting

For each of these activities, job specific training has been developed to ensure knowledge of applicable requirements that should be followed to properly control the significant environmental aspects.

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<sup>1</sup> Significant environmental aspects applicable to the NLS have been defined at BNL as involving any of the following issues:

- Generation of any amount of industrial, hazardous, radioactive, or mixed wastes
- Air or liquid effluents or emissions exceeding defined values
- Storage or use of chemicals or radioactive material above certain thresholds (includes PCBs)
- Backflow prevention
- Spill Potential
- Any soil activation