

NATIONAL SYNCHROTRON LIGHT SOURCE SAD RISK ASSESSMENT

APPENDIX 4

SYSTEM: Building 725 activities

SUBSYSTEM: Waste management

HAZARD: Release of wastes

HAZARD IMPACT:

The NSLS generates about ~3,000 to 5,000 pounds of hazardous or industrial wastes per year; mostly used machine or cutting oils, but also solvents, acids, caustics, and wastewaters with high concentrations of metals, as well as <2 cubic feet of radioactive waste, and small amounts of mixed or medical wastes. Improper handling of these materials could result in a release to the soil, groundwater, air or sanitary system.

RISK ASSESSMENT PRIOR TO MITIGATION:

Consequence	<input type="checkbox"/> I High	<input type="checkbox"/> II Moderate	<input checked="" type="checkbox"/> III Low	<input type="checkbox"/> IV Routine
Probability	<input type="checkbox"/> A Frequent	<input type="checkbox"/> D Remote		
	<input checked="" type="checkbox"/> B Probable	<input type="checkbox"/> E Extremely Remote		
	<input type="checkbox"/> C Occasional	<input type="checkbox"/> F Impossible		
Risk Category	<input type="checkbox"/> I High	<input checked="" type="checkbox"/> II Moderate	<input type="checkbox"/> III Low	<input type="checkbox"/> IV Routine

MITIGATING FACTORS

- **NSLS chemical usage and waste production are minimized through review; less hazardous chemicals and processes are substituted where possible. Controls are based on:
 - LS-ESH-PRM-7.0.0, Hazardous Waste Management
 - Significant Environmental Aspects matrix
 - NSLS Satellite Area Manager Job Specific Environmental Awareness Training
 - NSLS ESH PRM 1.3.5a, Experiment Safety Review
 - NSLS ESH PRM 1.3.6, NSLS Work Planning and Control Procedure
 - Facility Specific Safety Orientation
 - Hazardous Waste Generator Training
 - NSLS ESH PRM 1.2.0, Environmental, Safety and Health Inspections (Tier I)
 - BNL Waste Management Division
 - Process Assessment Forms
 - Tritium sampling program for accelerator cooling water systems
 - Waste reduction, pollution prevention and recycling

RISK ASSESSMENT FOLLOWING MITIGATION:

Consequence	<input type="checkbox"/> I High	<input type="checkbox"/> II Moderate	<input checked="" type="checkbox"/> III Low	<input type="checkbox"/> IV Routine
Probability	<input type="checkbox"/> A Frequent	<input type="checkbox"/> D Remote		
	<input type="checkbox"/> B Probable	<input type="checkbox"/> E Extremely Remote		
	<input checked="" type="checkbox"/> C Occasional	<input type="checkbox"/> F Impossible		
Risk Category	<input type="checkbox"/> I High	<input type="checkbox"/> II Moderate	<input checked="" type="checkbox"/> III Low	<input type="checkbox"/> IV Routine