

Beamline Hazard Analysis - Beamline X3A

LS-BHA-X3A

Revision: 02

Effective: 09/28/11

Page 1 of 2

The following tasks are included in the beamline safety review. Any operations not listed here, or performed by others than those listed, need additional review by ES&H personnel and/or beamline personnel.

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Tasks / Equipment	Performed by:		Controls
	Beamline Staff	Users	
Inert compressed gas	Y	N	<ul style="list-style-type: none"> Compressed gas training – TQ-COMPGAS1 or NSLS User training Transport cylinders using a cylinder cart Properly secure cylinders Wear safety glasses with side shields while connecting lines Leak check gas lines
Solvents	Y	Y	<ul style="list-style-type: none"> Limit quantities at beamline to < 250 ml Use PPE - safety glasses, nitrile gloves
Pouring cryogenics \leq 5L	Y	Y	<ul style="list-style-type: none"> Use goggles Long pants and sleeves - avoid clothing which can trap cryogenics (pockets, cuffs) Cryogen or heavy gloves Enclosed shoes Never pour from above chest level
Using the LN2 Fill Station or pressurized transfer	Y	Y	<ul style="list-style-type: none"> LS-PROC-LN2FILL-MANL training for fill station Use full face shield along with goggles or safety glasses Long pants and sleeves - avoid clothing which can trap cryogenics (pockets, cuffs) Cryogen or heavy gloves Enclosed shoes
Manipulating cryogenic samples	Y	Y	<ul style="list-style-type: none"> Use goggles Long pants Impervious disposable gloves over cotton liners Enclosed shoes Use tongs or tools whenever possible
Cryogenic autofill system	Y	Y	<ul style="list-style-type: none"> Ensure hutch ventilation system is operating
Ergonomics concerns – pinch points/sharp edges – Lift table			<ul style="list-style-type: none"> Training
Cutting/razor blades	Y	Y	<ul style="list-style-type: none"> Be aware of hand positioning Use safety knife when possible Consider using cut resistant gloves for frequent cutting tasks

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