

Beamline Hazard Analysis - Beamline X18B

LS-BHA-X18B

Revision: 04

Effective: 6/5/12

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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	Y	<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
Toxic compressed gases	Y	Y	<ul style="list-style-type: none"> Compressed gas training – TQ-COMPGAS1 or NSLS User training Transport cylinders using a cylinder cart Properly secure cylinders Use small quantities or a ventilated gas cabinet Wear safety glasses with side shields while connecting lines Leak check gas lines Low ventilation flow alarms
Flammable compressed gases	Y	Y	<ul style="list-style-type: none"> Compressed gas training – TQ-COMPGAS1 or NSLS User training Transport cylinders using a cylinder cart Properly secure cylinders Use small quantities or a ventilated gas cabinet Use a flash arrestor Wear safety glasses with side shields while connecting lines Leak check gas lines Low ventilation flow alarms
Pouring cryogen ≤ 5L	Y	Y	<ul style="list-style-type: none"> Use goggles Long pants and sleeves - avoid clothing which can trap cryogen (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"> PS-TECH-LN2FILL training for fill station Use full face shield along with goggles or safety glasses Long pants and sleeves - avoid clothing which

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			<ul style="list-style-type: none"> • can trap cryogenics (pockets, cuffs) • Cryogen or heavy gloves • Enclosed shoes
Class 2/3a laser	Y	N	<ul style="list-style-type: none"> • Laser registration, warning signs
Soldering	Y	N	<ul style="list-style-type: none"> • Use a designated area, periodically clean surfaces
High temperature	Y	Y	<ul style="list-style-type: none"> • Warning signs • Training
Nanoparticulate work	Y	Y	<ul style="list-style-type: none"> • Nanomaterial fixed, or HEPA filtered exhaust
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