

## Beamline Hazard Analysis - Beamline X29A

LS-BHA-X29A

Revision: 02

Effective: 10/18/11

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.

Prepared By: H. Robinson, W. Shi

Approved By: Lori Stiegler

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

**Beamline Hazard Analysis - Beamline X29A**

LS-BHA-X29A

Revision: 02

Effective: 10/18/11

Page 2 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.

			cutting tasks
--	--	--	---------------