Brookhaven National Laboratory – Photon Sciences -National Synchrotron Light Source					
Beamline Hazard Analysis - Beamline X13A					
LS-BHA-X13A	Revision: 02	Effective: 10/5/11	Page 1 of 1		
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		
Solvents	Υ	Υ	<ul> <li>Limit quantities at beamline to &lt; 250 ml</li> <li>Use PPE - safety glasses, nitrile gloves</li> </ul>	
Using the LN2 Fill Station or pressurized transfer	Υ	Y	<ul> <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 cryogens (pockets, cuffs)</li> <li>Cryogen or heavy gloves</li> <li>Enclosed shoes</li> </ul>	
Liquid helium transfer	Υ	Υ	<ul> <li>Use full face shield along with goggles or safety glasses</li> <li>Long pants and sleeves - avoid clothing which can trap cryogens (pockets, cuffs)</li> <li>Cryogen or heavy gloves</li> <li>Enclosed shoes</li> <li>Use guidance/checklist from PRM 5.1.0</li> </ul>	
Ergonomics concerns – moving/lifting – cryogen transfer line	Y	Y	<ul><li>Be aware of body posture,</li><li>Ask for help in moving or lifting</li></ul>	
High temperature – vacuum bakeout	Y	N	<ul><li>Warning signs</li><li>Training</li></ul>	
Visible light	Y	Y	<ul><li>Covers</li><li>Warning signs</li><li>Training</li></ul>	
Cutting/razor blades	Y	Y	<ul> <li>Be aware of hand positioning</li> <li>Use safety knife when possible</li> <li>Consider using cut resistant gloves for frequent cutting tasks</li> </ul>	