NSLS-II Beamline Specific Training Form 8-BM

Course Code PS-BST-8-BM

Rev Date: 10/2/2018

ACCESS

☐ F Signs and Placards  Locate and discuss all posted signs and placards (Hazard Info Placard, contact info, PPE)

☐ EB Hatch Access  Train user for Beamline Hatch Search and Secure and Breaking Security. Be aware of moving door hazards

☐ F Safety Approval Form  Users must review SAF; review controls and other training for SAF or beamline

☐ F Lead Experimenter  Lead Experimenter must ensure that safety, training, and reporting requirements are completed

EMERGENCIES

☐ F FLOCO/Control Rm  Discuss process to contact a Floor Coordinator (FLOCO) and the Control Room for assistance

☐ F Beamline Staff  Discuss process to contact Beamline Staff for assistance and operations (emergency contact info, phones)

☐ F Emergencies  Discuss where to go and who to contact during an emergency. Locate exits and fire alarm pull boxes

☐ F Emergency Lights  May come on for self-test with lights and buzzer

☐ F Eye Wash/Shower  Locate eye wash/shower

☐ F Spill Station  Locate spill control station

☐ F Emergency Beam Stop  Locate emergency beam stop buttons, discuss purpose and operation

☐ F Radiation Monitors  Identify radiation monitor locations, move away from area, call control room if area monitors sound off

☐ F Oxygen Monitors/Alarms  Locate hatch ODH monitors, discuss alarm response, verify green light is on, discuss LOB receiving room access

☐ EB Gas Alarms  Discuss any gas systems and alarms in the area, and the appropriate response to alarms

BEAMLINE EQUIPMENT

☐ F Config Control  Identify the configuration control signs and follow configuration control policy

☐ F Mezzanine Access  Access to mezzanine, areas above hatch roof, staircase is not permitted

☐ F User Authorization  User is authorized to operate ONLY the equipment the user has been trained on - review operation and hazards

☐ B2 Electrical Outlets  Do not plug equipment into sensitive or UPS outlets w/o beamline staff approval

☐ B End Station Equip  Point out Red Cables or High Voltage (HV) Supply for end station equip (do not touch)

☐ B Ergonomics  Use caution when moving around equipment and under beam pipes, changing chambers, during equipment alignment (limited space, low pipe, trip hazards, awkward positions, personnel injury, equipment damage)

☐ B Detector  Review detector location, operations, hookups, cables, fill frequency, cautions for high voltage and equip damage

☐ B Ion Chamber(s)  Point out Red Cables or High Voltage (HV) Supply for ion chamber(s) (do not touch)

☐ B4 Monochromator  Review operations for energy ranges, set up, and operation of monochromator drive, motors, bearings, power, software; User ☑ is ☑ not authorized to adjust monochromator

☐ B3 Optical System  Review optical system set up, operations

☐ B5 Sample Chamber  Review operations for sample mounting and sample changing

☐ B Shutters  Review location, operations, indicators, and required sequence for beamline shutter controls

☐ B Water System  Review location, indicators, alarms, trips, and operations for system and shut off

☐ B WebCam  Be aware of WebCams and/or Remote Monitoring

BEAMLINE OPERATIONS

☐ B Computer Operations  Review operations for computer operations, control software, data acquisition software, machine status

☐ B Computer Software  Do not install any computer software on beamline computers

☐ B Computer Data  Review data storage, data transfer, and back up process

ESH & HAZARDS

☐ EB Beryllium  Identify location of beryllium articles or beryllium windows and process for notification in case of breakage

☐ EB Cryogen Fill Station  For Cryogen Filling Station, NSLS-II training and PPE required; BNL cryogen training recommended

☐ EB Chemicals  Discuss use, labeling, storage, spills, labs, disposal, and transportation of chemicals

☐ EB Cryogen Use  For cryogen/cryostat use, discuss fill operations, ODH, demonstrate use, wear PPE (eye and skin protection)

☐ EB Cryogen Dewar Fills  Liquid Nitrogen is filled by beamline staff only

☐ F Electrical Work 50V  No work on exposed electrical components >50V without appropriate electrical training

☐ EB Electrical Connections  User is not authorized to adjust any high voltage, motor connections or in-hutch beamline electronics

☐ EB Electrical Equipment  User is not permitted to modify or service any electrical equipment on the beamline or perform any bake-outs

☐ EB Electrical Breakers  In case of power failure, contact the FLOCO or Beamline Staff

☐ EB Red & Yellow Tags  Provide information about any beamline equipment or systems that are yellow or red tagged

☐ EB Gas  Show location, operations, use, fills, storage of gas (inc cabinets if any), emergency response actions, and if authorized: valve operations, gas interlocks, switching cylinders, operating transfer lines

☐ EB Ladders  Review step ladder use if needed; if ladder required, discuss set up, safety and 3-point rule


During initial form development: If there is a number next to the designation (e.g., B1, B2, etc), select the most appropriate content.
NSLS-II Beamline Specific Training Form 8-BM  
Course Code PS-BST-8-BM  
Rev Date: 10/2/2018

<table>
<thead>
<tr>
<th>Instructions to Trainer:</th>
<th>SAF #</th>
<th>Instructions to User:</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Provide training for each checkbox to each user listed on the SAF as they arrive and complete the information below. If a checkbox does not apply, cross out that line.</td>
<td></td>
<td>Ensure your name and life number are correct and sign the space below that you understand the instructions provided to you in this training.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PRINT User Name</th>
<th>Life #</th>
<th>User Signature</th>
<th>Date</th>
<th>Trainer’s Signature</th>
<th>Training Entered</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

LAB/TECH AREAS & SAMPLE PREP

- **EB Lab Use**: Discuss use of lab (including forms and PPE) and/or tech space (non-lab) area
- **EB Sample Prep**: Discuss location for sample prep; prepare samples only where instructed
- **EB Soldering Station**: Avoid skin contact with soldering iron to prevent burns to the skin; advise of process for solder scrap

WASTES

- **EB Hazardous Wastes**: Do not generate hazardous wastes without talking with beamline staff. Anyone generating Hazardous Waste must have Lab Standard and Hazardous Waste Generator training.
- **EB Waste Location**: Show relevant waste collection areas and discuss training requirements (sharps, razor blades, pipet tips, broken glass, hazardous waste Satellite Accumulation Area/SAA)
- **EB Sharps**: Place cover slips, tips, needles in sharps container

CLOSE OUT

- **B1 Samples (Take Home)**: Take samples back to home institution
- **B2 Shipping Haz Mat**: Review shipping process for hazardous materials
- **B2 Data Log Book**: Complete entries in Experiment Data Logbook
- **B2 End of Run Form**: Complete the End of Run form for NSLS-II
- **B2 Systems & Equip**: Power down systems and turn off equipment voltages as required, perform PC security check
- **B2 Shut Down/Secure BL**: Secure beamline and inform the Beamline Staff experiment is complete
- **B2 Housekeeping**: Check housekeeping (beamline area neat, clean, free of hazards), recycling, tools returned or stored
- **B2 Publications**: Send a copy of your publication to [NSLS-II User Administration](mailto:admin@nsls-II.org)

During initial form development: If there is a number next to the designation (e.g., B1, B2, etc), select the most appropriate content.

[B] Beamline Specific  
[E] Determined by ESH  
[EB] Determined by ESH and Beamline  
[F] Required by Facility for ALL Beamlines

If lifting objects <30 lbs, keep weight close to the body (between shoulders and knees); if lifting objects ≥30 lbs, use lifting and/or mechanical aids or two person lifts

Magnetic fields present at this beamline - Users with medical devices/implants should stay 1’ away from source

Review approved locations and controls for nanomaterial use

Safety glasses may be required inside hutch (discuss with beamline staff if required)

Food consumption is permitted in designated food areas (LOBs)