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<th>NSLS-II Beamline Specific Training Form 12-ID</th>
<th>Course Code PS-BST-12-ID</th>
<th>Rev Date: 6/1/2018</th>
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### ACCESS
- **☐ F** Signs and Placards
  - Locate and discuss all posted signs and placards (Hazard Info Placard, contact info, PPE)
- **☐ EB** Hutch Access
  - Train user for Beamline Hutch 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 hut 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
- **☐ EB** User Labyrinth
  - Discuss proper steps and precautions to take for use of the user labyrinth
- **☐ B** End Station Equip
  - Point out Red Cables or High Voltage (HV) Supply for end station equip (do not touch)
- **☐ B1** Equip Stop Buttons
  - Review operations for equipment stop buttons and when to use them
- **☐ 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** CryoCooler Ops
  - Locate cryocooler and status of normal operations
- **☐ B** Detector
  - Review detector location, operations, hookups, cables, fill frequency, cautions for high voltage and equip damage
- **☐ B** Lenses
  - Review location and operations for lens focusing
- **☐ B3** Mirror
  - Review mirror location, operations [Adjustment ☐Yes ☐NA][Rotation ☐Yes ☐NA][Tilt ☐Yes ☐NA]
- **☐ B2** Monochromator
  - Review operations for energy ranges, set up, and operation of monochromator drive, motors, bearings, gas feeds, power, software; User ☐is ☒is not authorized to adjust monochromator
- **☐ B2** Optical System
  - Review optical system set up, operations, mirror, camera
- **☐ B1** Sample Chamber
  - Review operations for sample chamber and mounter; User ☐is ☐is not authorized to modify sample chamber or add new equipment to existing flanges (if authorized, review requirements and extension policy)
- **☐ B** Shutters
  - Review location, operations, indicators, and required sequence for beamline shutter controls
- **☐ B** Spectrometer
  - Review spectrometer operations and limits
- **☐ B1** Vacuum (End Sta Eqp)
  - User ☐is ☒is not authorized to perform vacuum work and bleed ups on end station equipment; if authorized, review location, indicators, and operations
- **☐ 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
- **☐ EB** Unattended Ops
  - User ☐is ☐is not requested to attend beamline at all times, as per SAF. Discuss process

### ESH & HAZARDS
- **☐ EB** Beryllium
  - Identify location of beryllium articles or beryllium windows and process for notification in case of breakage
- **☐ EB** Chemicals
  - Discuss use, labeling, storage, spills, labs, disposal, and transportation of chemicals
- **☐ EB** LN2 Shut Off
  - Review operations for LN2 shutoff buttons and when to use them
- **☐ 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

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During initial form development: If there is a number next to the designation (e.g., B1, B2, etc), select the most appropriate content.
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Instructions to Trainer: Place next to your name:  
√ Zherenkov, Mikhail

Instructions to User: Ensure your name and life number are correct and sign the space below that you understand the instructions provided to you in this training.

<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>
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(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.

Training is valid for 1 year at this beamline only. (2) Send completed forms to NSLS-II Training, Building 745, immediately after all users listed on the SAF (who plan to arrive for this run) have been trained. Training will be entered in the user's training history.

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

☐ EB Electrical Pwr Supplies  
Review process to check power supplies and cables; User ☐ is ☐ is not authorized to change PS; User ☐ is ☐ is not authorized to power down PS; if authorized, review operations

☐ 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

☐ EB Lifting  
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

☐ EB Nano Materials  
Review approved locations and controls for nanomaterial use

☐ EB Food  
Food consumption is permitted in designated food areas (LOBs)

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 Samples (Storage)  
Review storage process for samples

☐ B Shipping Haz Mat  
Review shipping process for hazardous materials

☐ B Data Log Book  
Complete entries in Experiment Data Logbook

☐ F End of Run Form  
Complete the End of Run form for NSLS-II

☐ B1 Shut Down/Secure BL  
Secure beamline and inform the Beamline Staff experiment is complete

☐ F Housekeeping  
Check housekeeping (beamline area neat, clean, free of hazards), recycling, tools returned or stored

☐ F1 Publications  
Send a copy of your publication to ☑ NSLS-II User Administration ☐ the beamline

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

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