

BEAMLINE SPECIFIC TRAINING

Required minimum information to convey to Users

1/11/2019

Required
As applicable
Pick one of these lines

ACCESS/POLICY	
<input type="checkbox"/> Prohibited Areas	Access to FOE, mezzanine areas above hutch roof, staircase not permitted
<input type="checkbox"/> Signs and Placards	<p>Locate and discuss all posted signs and placards (Hazard Info Placard, contact info, PPE)</p> <ul style="list-style-type: none"> • Show board at the end of the beamline • Go over any hazards and controls listed on the Hazard Placard with regards to resident beamline equipment hazards
<input type="checkbox"/> Safety Approval Form	<p>Users must review the SAF; review controls and other training for SAF or beamline</p> <ul style="list-style-type: none"> • Bring up posted SAF on beamline display screen • Ensure any ESH controls or training listed in the controls section are satisfied. • Remind user that only the tasks and materials described on the SAF are allowed • Check user training status
<input type="checkbox"/> Lead Experimenter	<p>Lead Experimenter must ensure that safety, training, and reporting requirements are completed</p> <ul style="list-style-type: none"> • Impress on the lead experimenter that they are responsible for the safety of their team and to make sure their team conforms to NSLS-II expectations • In case of a building evacuation, the LE needs to perform their group’s accountability and report anyone missing
EMERGENCIES	
<input type="checkbox"/> FLOCO/Control Room	<p>Discuss when to contact a Floor Coordinator (FLOCO) and the Control Room for Assistance</p> <ul style="list-style-type: none"> • ODH alarms • Electrical breaker trip • Spills above their capability to clean up (also call 2222) • Injuries
<input type="checkbox"/> Beamline/ESH Staff	<p>Discuss when to contact Beamline Staff/ESH for assistance and operations (emergency contact info, phones)</p> <ul style="list-style-type: none"> • Equipment problems (beamline) • Electrical inspections (Electrical Engineering group) • SAF updates (ESH staff) – adding materials • Assistance with waste (ESH staff)
<input type="checkbox"/> Emergencies	<p>Discuss emergency response and accountability responsibilities. Locate assembly, shelter-in-place areas, exits, and fire alarm pull boxes</p> <ul style="list-style-type: none"> • Explain how they will know about an emergency (phone messages, monitor displays) • Show shelter-in-place (experimental floor) • Explain outdoor assembly areas (LOBs if emergency is on experimental floor, in parking lot outside LOB if emergency is in LOB)

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	<ul style="list-style-type: none"> Show fire alarm pull boxes and fire extinguishers nearby
<input type="checkbox"/> Eye wash/shower	Locate eye wash/shower
<input type="checkbox"/> Spill station	Locate spill control station <ul style="list-style-type: none"> Explain that they should only cleanup minor low hazard spills if they are comfortable doing so
<input type="checkbox"/> Radiation Monitors	Identify radiation monitor locations, move away from area, call control room if area monitors alarm
<input type="checkbox"/> Oxygen Monitors/Alarms	Locate hutch ODH monitors, discuss alarm response, verify green light is on, discuss LOB receiving room access <ul style="list-style-type: none"> Show ODH monitors inside hutch Show lights outside door, ensure the green light is lit before entering The LOB receiving rooms have the same light system and alarm, ensure anyone going through there has ODH training or is escorted If alarm goes off, leave the area and call the control room
<input type="checkbox"/> Gas Alarms	Discuss any gas systems and alarms in the area, and the appropriate response to alarms <ul style="list-style-type: none"> Show any gas systems Explain the light tree, show the signs on them outlining expected response (move into LOB or exit by closest exit door) Must wait for fire department all-clear announcement before going back into area
BEAMLIN SAFETY	
<input type="checkbox"/> Configuration Control	Identify the configuration control signs and follow configuration control policy <ul style="list-style-type: none"> Show arrows on components that must not be moved
<input type="checkbox"/> Cryogen Lines	Discuss allowed operations with transfer lines, review operations
<input type="checkbox"/> Equip E-stops	Show locations, review when to use emergency stops, and if authorized to reset <ul style="list-style-type: none"> Go over possible reasons for using equipment emergency stop buttons If allowed, show how to reset
<input type="checkbox"/> Hutch Access	Train user for Beamline Hutch Search and Secure and Breaking Security. Locate emergency beam stop buttons, discuss purpose and operation. Do not shut the hutch door with anyone inside. Be aware of moving door hazards <ul style="list-style-type: none"> Go over Search and Secure and emergency stop buttons Show the automatic door buttons, and warn about pinch hazards Remind them that personnel are not allowed to be inside a closed hutch
<input type="checkbox"/> LN2 Shut Off	Review operation for LN2 shutoff button, and when to use them
<input type="checkbox"/> User Authorization	User is authorized to operate ONLY the equipment the user has been trained on – review operation and hazards <ul style="list-style-type: none"> State that authorization must come from beamline staff, not fellow experimenters.
<input type="checkbox"/> User Labyrinth	Discuss proper steps and precautions to take for use of the user labyrinths

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GENERAL SAFETY	
<input type="checkbox"/> Beryllium	Identify location of beryllium articles or beryllium windows and process for notification in case of breakage <ul style="list-style-type: none"> Isolate the area as best as possible and keep people away Call the Control Room
<input type="checkbox"/> Chemicals	Discuss use, labeling, storage, spills, labs, disposal, and transportation of chemicals <ul style="list-style-type: none"> Any chemicals in use at the beamline must be labeled with owner, contents, and hazards Ensure proper storage and secondary containment if transporting chemicals
<input type="checkbox"/> Cryogen Use	For cryogen/cryostat use, discuss fill operations, ODH, demonstrate use, wear PPE (eye and skin protection)
<input type="checkbox"/> Electrical Work	No work on exposed electrical components (>50V and either >5mA AC or 25 mA DC or > 10KV at any current) without appropriate procedures and electrical training <ul style="list-style-type: none"> Check with electrical engineering group for questions Servicing and maintenance of equipment requires a procedure User is not authorized to adjust any high voltage, motor connections or in-hutch beam electronics User is not permitted to modify or service any electrical equipment on the beamline or perform any bake-outs
<input type="checkbox"/> 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
<input type="checkbox"/> Ladders	Review step ladder use if needed; if ladder required, discuss set up, safety and 3-point rule
<input type="checkbox"/> Magnetic Fields	Magnetic fields present at this beamline – Users with medical devices/implants should stay away from source <ul style="list-style-type: none"> Point out if there are any ion pumps or other sources Anyone with questions can contact ESH Do not move or alter postings
WASTES	
<input type="checkbox"/> Hazardous Wastes	Do not generate hazardous wastes without talking with beamline staff <ul style="list-style-type: none"> Discuss any waste listed on SAF and coordinate with lab staff for locations and required training.
<input type="checkbox"/> Waste Location	Show relevant waste collection area and discuss training requirements (sharps, razor blades, pipet tips, broken glass, hazardous waste Satellite Accumulation Area/SAA)
CLOSE OUT	
<input type="checkbox"/> Samples (Take Home)	Take samples back to home institution <ul style="list-style-type: none"> Ensure any samples are secured when transporting, with proper containment Do not label any samples or chemicals as 'Waste'
<input type="checkbox"/> Samples (Storage)	Review storage process for samples

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	<ul style="list-style-type: none">• Discuss labeling and storage if allowed
<input type="checkbox"/> Samples (Store or Ship)	Discuss with beamline staff whether to store samples or ship back to home institution and confirm before leaving
<input type="checkbox"/> Shipping Haz Mat	Review shipping process for hazardous materials <ul style="list-style-type: none">• Shipping memo is required• NSLS-II User Guide has shipping information
<input type="checkbox"/> End of Run Form	Complete the End of Run form for NSLS-II
<input type="checkbox"/> Housekeeping	Check housekeeping (beamline area neat, clean, free of hazards), ensure tools/equipment returned or stored
<input type="checkbox"/> Publications	Send a copy of your publication to NSLS-II User Administration, the Beamline