HALL A WORKER SAFETY AWARENESS TRAINING (SAF110)

**Purpose**
Familiarize users with safety hazards and protection systems in the Counting House and Hall.

**Training**
A guided walkthrough covering the Hall A Counting House, labyrinth and Hall A using the latest update of the Emergency Response Guidelines (ERG) document for the hall.

**First time or expired training**
If the worker has never had the SAF110 training before or the training has been invalidated (forced to expire, see below), he/she should take a guided walk-through of the Counting House, the personnel access stairs and tunnel and the hall proper. For this, the user should contact the person responsible for the training:

Hall A/SAF110 - J. Butler [cell (757) 768-1302, jbutler@jlab.org]

The guided training will, at a minimum, go over the likely hazards as well as the protection & emergency systems and procedures outlined in Appendix A of the ERG that one finds in the Counting House, personnel access stairs/tunnel and the hall. The JLab Skill Requirements List (SRL) tracking system (i.e. training) will be used to track the training status.

The SAF110 training does not have an expiration date. If however, the conditions of a hall are deemed to have changed sufficiently by the Division Safety Officer, the SAF110 training will be invalidated (forced to expire). The training tracking system will, like with any other training, notify all those affected so that they can make arrangements to take again the guided SAF110 training.

SAF110 training is required for unescorted access to the hall and to be able to take shifts in the Counting House – “escorting” of shift personnel is not allowed.
Emergency Response Guidelines (ERG)

As part of the Experiment Readiness Review Process and Approval, every experiment is required to submit, in addition to the Conduct-of-Operations (COO), Experiment Safety Assessment Document (ESAD) and, Radiation Safety Assessment Document (RSAD), a document that summarizes the location of major hazards in the hall, the location of the various emergency systems as well as emergency procedures and egress routes during that experiment: the Emergency Response Guidelines (ERG) – this document. Shift personnel and anyone else wishing access to the hall during the duration of the experiment, must read and sign to indicate they have understood the COO, ESAD, RSAD and ERG of the experiment. Anyone feeling in doubt with the information contained in the ERG should contact the person responsible for the Hall Worker Awareness Training and schedule guided refresher training.

Purpose
Familiarize users with safety hazards and protection systems in the Counting House and Hall.

Prerequisites to access the halls without escort
ES&H Orientation (SAF100)
Rad Worker I Training or equivalent (must have been issued a dosimeter by JLab)
ODH training (SAF103)
General Access Radiological Work Permit [RWP] (SAF801kd)
Hall A Worker Safety Awareness Training (SAF110)

Reminder
- No one under 18 years may enter the halls
- No sandals or open toe shoes in any hall
- No food or drinking inside the halls
- Check postings at the entrance to the hall for special requirements (e.g. long pants are required in Hall A). If in doubt, please contact the Hall Work Coordinator or his/her designee,
  Hall A - J. Butler [cell (757)768-1302, jbutler@jlab.org]
- Check that all work or test set ups follow the work controls indicated in the ES&H manual (http://www.jlab.org/ehs/ehsmanual/index.html) and on the supplemental Physics Division Work Planning Guidance (http://www.jlab.org/div_dept/physics_division//work_guidance_final.pdf). If in doubt, consult the Safety Warden of the area in which the work will take place, the Physics Division ESH&Q coordinator (B. Manzlak) or the Physics Division Safety Officer (E. Folts).
The two-person rule ("Buddy Rule")
Accessing the halls or performing work in the halls may require that personnel work on teams of at least two people. The two-person rule must be followed when entering Hall B or when performing a task in any of the halls that requires two-persons as indicated by the applicable general JLab safety rules or task OSP/TOSP. Examples of tasks that require two-persons would be operation of the hall crane, use of a man-lift, performing cryogenic, electrical or welding work. Check postings at the entrance to the hall for special requirements. **If in doubt, please contact the Hall Work Coordinator or his/her designee.**

Undergraduate Students in the Experimental Halls
Regardless of hall or task, undergraduate students must follow the two-person rule during their first three-months at JLab. During that period, undergraduate students are allowed to work in the hall if (a) their work in the hall is always under the supervision of a hall-authorized `buddy` (the `buddy` can not be another undergraduate) and, (b) a permanent JLab staff member is cognizant of the work to be done, has supervisory responsibility for their work and approves the `buddy`. 
Appendix A

This appendix lists likely hazards, protection & emergency systems used and emergency procedures to be reviewed during the Hall Worker Awareness Training.

Hazards:
- Fire (electrical equipment, breaker panels, paper, trash, cables)
- Tripping and overhead hazards
- Falling hazards
- Elevated work
- High-pressure systems including low-conductivity water distribution
- Radiation hazards (beam-on, contaminated and activated areas)
- Loud noise hazards (thin vacuum windows)
- Flammable gasses
- Cryogenic (ODH and “cold-bite”)
- Magnets and magnetic fields
- Electrical
  - AC & DC (various voltages)
  - Magnet power supplies and their current distribution systems
  - High-Voltage supplies

Protection & Emergency systems and procedures:
- Signs and postings,
  - Radiation areas
  - Hearing protection requirements
  - Exit signs
  - Exit routes (evacuation plans)
  - Oxygen Deficiency Hazards
- Personnel Protection Requirements (e.g. hardhat, safety glasses, ...)
- First Aid kit and Emergency Defibrillator
- Telephone locations with emergency numbers
- Fire
  - Detection systems (e.g. the Very Early Smoke Detection Apparatus [VESDA])
  - Alarm pull boxes
  - Fire alarm bells
  - Extinguishers and escape equipment (Hall B only)
  - Evacuation routes and muster points
• Electrical
  o Power shutoff switches
  o Circuit breaker panels
• Weather related hazards
  o Tornado emergency response
• Emergency lights
• Beam status, interlock and abort
  o Machine State Status Indicators,
  o Magenta/purple beacons,
  o Access doors to hall
  o Key interlocks
  o Run/Safe boxes
• Oxygen Deficiency Hazard condition detection
  o Sensors locations
  o Blue beacons & alarms locations
• Radiation Monitors (Controlled Area Radiation Monitors – CARMs)
• RadCon staging areas for equipment to be removed from hall
• Red beacons for hazards (e.g. energized magnets and cranes)
• Yellow beacons for warning or caution (e.g. energized lasers, forklifts)
• Cabinets for storing flammable materials
• Lockout/Tagout Stations
• Eye wash stations
HALL A WORKER AWARENESS TRAINING LAYOUT

EXPERIMENTAL HALL A BUILDING 101, FLOOR 1 EMERGENCY PLAN

IN CASE OF FIRE:
- STAY CALM
- WALK, DO NOT RUN
- ACTIVATE NEAREST PULL BOX, FOLLOW ARROWS IN DIAGRAM & MEET AT MUSTER POINT

IN CASE OF SEVERE WIND:
If a tornado warning is issued by the National Weather Service, and JLAB is within the warning area, move quickly to one of the designated severe wind "take cover" areas.

LEGEND
- EGRESS PATH
- FIRE EXTINGUISHER
- FIRE ALARM PULL STATION
- SEVERE WIND "TAKE COVER" AREA
- MUSTER POINT
- TELEPHONE
- EMERGENCY EXIT SWITCH
- RUN/SAFE BOX
- CRANE POWER DISCONNECT
- LASER/HALL BUTTON
- MAGNETIC FIELD
- ELECTRONICS/PWR
- EYE WASH
- CABLE PATH

OBSTRUCTIONS (TEMP. WELD STATION)
OBSTRUCTIONS (ELECTRONICS RACKS)
# Emergency Response Procedures

<table>
<thead>
<tr>
<th>Important information</th>
<th>Both numbers will connect you to:</th>
<th>If dialed from a land-line phone the following are automatically alerted:</th>
<th>If dialed from a cell phone you will also need to call:</th>
</tr>
</thead>
</table>
| DIAL                  | City of Newport News' Emergency Dispatch Center | • Jefferson Lab Security  
• Occupational Medicine  
• Other key Jefferson Lab Responders. | Jefferson Lab Security  
269-5822  
Cell 342-9868 |

### EVENT | ACTION 1 | ACTION 2 | ACTION 3
--- | --- | --- | ---
Injury or acute illness | Call 9-911 or 911 | • Do not move the victim (unless they are in danger)  
• Administer first aid/CPR if willing and trained  
• Avoid contact with blood | • Stay with the victim while awaiting emergency responders |

Direct minor injuries to Occupational Medicine (Support Service Center, Bldg 28, Room 22) during regular business hours. Most buildings have one or more first aid cabinets and AEDs for your convenience. There are pamphlets at these locations to assist you.

<table>
<thead>
<tr>
<th>Event Description</th>
<th>Action 1</th>
<th>Action 2</th>
<th>Action 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fire Alarm</td>
<td>Evacuate to Muster Point (refer to the evacuation map for the location)</td>
<td>Await “All-Clear Notification” From Fire Protection Engineer or Building Drill Coordinator before re-entry.</td>
<td></td>
</tr>
<tr>
<td>See or Smell - Inside a building and/or outside</td>
<td>Sound Alarm (use the nearest pull box)</td>
<td>Evacuate to Muster Point (refer to the evacuation map for the location)</td>
<td>Await “All-Clear” Notification From Fire Protection Engineer or Building Drill Coordinator before re-entry.</td>
</tr>
<tr>
<td>Suspect item</td>
<td>Evacuate Upwind (keep others away)</td>
<td>Back Away (keep others away)</td>
<td>Call Jefferson Lab Security 269-5822</td>
</tr>
</tbody>
</table>
| Bomb Threat | Write Down:  
• DO NOT touch the item  
• DO NOT change the environment (e.g. turn off lights or open window)  
• Any demands/ instructions  
• Caller’s number if available  
• Vocal characteristics  
• Any other relevant details to identify the caller | | Call Jefferson Lab Security 269-5822 |
| Other Emergency Notifications (via cisco phone system, notification e-mail, outdoor siren, weather alert radio) | (e.g. Off-Site Emergency, Severe Weather Warning, Earthquake) | Stay in Building (unless told to evacuate) | Abide by Instructions  
Refer to the evacuation map for appropriate locations |
| ODH Alarm or visible plume | Evacuate to Muster Point | Call Jefferson Lab Security 269-5822 | If on the Accelerator Site Call the Crew Chief 269-7045 |
| Radiation Alarm | If you see a Flashing RED Light and Hear an Audible Alarm | Evacuate to Muster Point (refer to the evacuation map for the location) | If on Accelerator Site Call the Crew Chief 269-7045 |
| Hazardous Machine Operations | Hit “Push to Safe” RED Button | Evacuate to Muster Point (refer to the evacuation map for the location) | Call the Crew Chief 269-7045 |
| Automobile Accident | If anyone is injured Call 9-911 or 911 | | Call Facilities Management 269-7400 |
| Intruders, Threatening or Abusive Behavior other unauthorized conduct | Call Jefferson Lab Security 269-5822 | Protect Yourself to Ensure Your Personal Safety  
If not imminent danger, report the incident to your lab management ASAP! |
| Requests for Jefferson Lab Status, or other information | You are not authorized to provide any information regarding Jefferson Lab status or conditions.  
Refer Requestor to Jefferson Communications Office 269-7689 | | |

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Rev. 01/2021