FIELDWORK SAFETY GUIDELINE

APPROVAL:

Signature on file

2/29/2016

Institution Safety Committee Chair

Date

Signature on file

2/26/2016

Environmental Health & Safety Director

Date
1.0 PURPOSE AND SCOPE

1.1 The purpose of this guideline is to establish requirements for protecting Woods Hole Oceanographic Institution (WHOI) personnel, members of the public, and the environment during fieldwork activities. This guideline should be reviewed during the project planning stages and before WHOI personnel deploy to fieldwork locations.

1.2 This guideline applies to all WHOI personnel that are involved in fieldwork that occurs offsite/outside of WHOI’s Quissett and Village campuses. This guideline does not apply to fieldwork covered by other environmental, health, and safety (EH&S) guidelines that provide equivalent protection. This Guideline does not apply to marine operations that are addressed by applicable U.S. Coast Guard regulations.

2.0 ROLES AND RESPONSIBILITIES

2.2 Environmental Health and Safety (EH&S) Office
- Maintains and assists with implementation of this guideline.

2.3 Fieldwork Site Safety Officer (SSO)
- As necessary, the PI or fieldwork supervisor will designate a site safety officer (SSO) to assist with implementation of fieldwork safety procedures. If no SSO is selected the PI or fieldwork supervisor will automatically assume the duties of the SSO.
- The SSO may be required by the client or should be designated due to the complexity and hazards associated with the fieldwork.

2.1 Principal Investigators (PIs) / Supervisors / Fieldwork Team
- As applicable to your fieldwork, review and implement this guideline and ensure your fieldwork team follows this guideline.

3.0 HAZARD ANALYSIS AND CONTROLS

3.1 Perform a hazard analysis of the key work activities involved in the project and identify the required controls.

3.2 This process may involve several steps and should be documented.
- Break the work down into discrete steps or tasks, e.g., staging, instrument deployment, sampling, instrument recovery, etc. Sometimes this is called a work breakdown structure.
- Review the procedures for performing each step/task. Identify potential EH&S hazards associated with each step/task (e.g., electrical shock, battery packs, confined space entry, chemical exposures, oxygen deficiency, elevated work, falls, water hazards, welding, wild animals, insect bites, life safety, heat stress, chemical releases, cold exposure, etc.).
- Identify requirements for eliminating or controlling the hazards that were identified above (e.g., fall protection, personal protective equipment, engineering controls, ventilation, follow procedure, training, etc.). NOTE: feasible engineering controls that can eliminate the hazard (e.g., containment, isolation) are preferred over personal protective equipment.

3.3 Attachment 1 provides a checklist to help identify possible hazards.
3.4 Certain hazards may be controlled by reviewing and following ES&H procedures that are available on the EH&S website: http://ehs.whoi.edu.

4.0 PROJECT HEALTH AND SAFETY PLAN

4.1 Attachment 2 provides an example project health and safety plan (HASP) that can be used to document the hazards, control measures, emergency procedures, and other important information.

4.2 If a HASP is required or appropriate for a field project, it should be completed and approved before the field work starts. The PI, supervisor, project manager, lead engineer, or SSO is responsible for developing and approving the HASP.

4.3 As appropriate or required include any environmental or waste management requirements for the project. Examples include: secondary chemical containment, hazardous waste collection/segregation/disposal, pollution prevention, and air or water effluent controls.

4.4 Train all WHOI project personnel on the HASP requirements and their responsibilities. Document this training with an attendance sheet or by team members signing the HASP.

4.5 If it’s required, keep a copy of the approved HASP at the fieldwork site. NOTE: the HASP could be inspected by federal or State regulatory agencies and, therefore, should be available at the field site. Provide a copy of this HASP to the EH&S Office (x3347, MS#48).

5.0 EMERGENCY PROCEDURES

5.1 Emergency procedures should be developed to address the most likely emergency scenarios, including a medical emergency.

5.2 Emergency procedures should include emergency phone numbers, emergency communication, evacuation/assembly, and the location of the nearest hospital.

5.2 The emergency procedures and information should be included in the HASP.
<table>
<thead>
<tr>
<th>Item</th>
<th>Y</th>
<th>N</th>
<th>NA</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health and safety plan (HASP) is on-site and available</td>
<td></td>
<td></td>
<td></td>
<td>Confined space entry procedures followed</td>
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<tr>
<td>On-site personnel have reviewed and signed HASP. As necessary, fieldwork site safety officer (SSO) designated</td>
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<td></td>
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<td>Personnel protective equipment available, e.g., hard hat, safety boots, gloves, hearing protection, coveralls, safety glasses, etc</td>
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<tr>
<td>Evacuation routes, assembly points identified, and head count procedure</td>
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<td></td>
<td>Battery pack safety procedures followed</td>
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<td>Reliable communications available (e.g., radios, cell phones, etc)</td>
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<td></td>
<td>Hot work procedures followed for welding, brazing, cutting</td>
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<tr>
<td>Heat stress or sever cold exposure</td>
<td></td>
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<td></td>
<td>Fire extinguishers available and fully charged. No smoking near combustibles</td>
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<tr>
<td>Injuries, spills, and accidents immediately reported to client and WHOI with online A/I form</td>
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<td></td>
<td></td>
<td>Electrical cords grounded and protected if in walkway. Outdoor electrical power protected with GFCI</td>
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<tr>
<td>First aid kit, insect repellant, and protection from wild animals</td>
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<td></td>
<td></td>
<td>Adequate hand washing, potable water available, and toilet facilities available</td>
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<tr>
<td>Stop work procedures established (lightning, damaging hail, high winds, dangerous animals, etc)</td>
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<td></td>
<td></td>
<td>Spill kits available for hazardous chemicals, including oil. Secondary containment utilized.</td>
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<tr>
<td>Appropriate ladders available: extension vs. step ladders</td>
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<td></td>
<td></td>
<td>Compressed gas cylinders properly secured and stored</td>
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<tr>
<td>Proper rigging and hoisting procedures and rated equipment available</td>
<td></td>
<td></td>
<td></td>
<td>Hazardous materials properly stored and used</td>
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<tr>
<td>Slip, trip, and fall hazards have been eliminated (cords, hoses, etc.)</td>
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<td></td>
<td></td>
<td>Portable eyewash available for hazardous chemicals</td>
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<tr>
<td>Proper fall protection available and used as necessary</td>
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<td></td>
<td></td>
<td>Lockout/tagout and electrical safety procedures followed</td>
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</tbody>
</table>
ATTACHMENT 2 – EXAMPLE HEALTH AND SAFETY PLAN (HASP)

Field project: ____________________________________________ Date: _____________

Completed by: ____________________________

SITE INFORMATION:

LOCATION: _______________________________________________________________________

SCOPE OF WORK: __________________________________________________________________

CHEMICAL HAZARDS:

☐ Flammable/Combustible ☐ Corrosive ☐ Toxic ☐ Reactive ☐ Biological
☐ Explosive ☐ Radioactive ☐ Unknown
☐ Safety Data Sheets ☐ Other: ____________________________

PHYSICAL HAZARDS:

☐ Working at heights ☐ Excessive noise
☐ Heat stress ☐ Heavy traffic
☐ Severe cold ☐ Electrical hazards
☐ Machine guarding ☐ Hoisting and rigging
☐ Wild animals ☐ Working over water
☐ Slip/Trip/Fall hazards ☐ Severe weather
☐ Other: _______________________________________________________________________

WORK PRACTICES/ENGINEERING CONTROLS:

☐ Adequate Ventilation ☐ Buddy System
☐ Barricade ☐ Containment/isolation
☐ Bonding/Grounding Equipment ☐ Safe operating procedures
☐ Other: _______________________________________________________________________

PERSONAL PROTECTIVE EQUIPMENT:

☐ Hard hats ☐ safety glasses/goggles ☐ PFD/Life vest ☐ Face Shield
☐ Gloves ☐ Coveralls ☐ Lab coat ☐ Safety boots/shoes
☐ Survival gear ☐ Flame resistant clothing ☐ Hearing protection
☐ Other: _______________________________________________________________________

MISCELLANEOUS EQUIPMENT:

☐ Radios ☐ Fire Extinguisher(s) ☐ Portable GFCI ☐ Portable Eye Wash
☐ Portable ventilation ☐ Reflector Vest ☐ First Aid Kit ☐ Flashlights
☐ Other: _______________________________________________________________________

EMERGENCY RESPONSE NOTIFICATION:

______________________________________________________________________________

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Mobile Phone □ Phone Located at Site □ Hand radios
Hand Signals □ Other: ____________________________________________

**EMERGENCY INFORMATION:**

□ PI/Supervisor:
□ Site safety officer:
□ Client contact:
□ Hospital:
□ Police:
□ Evacuation route:
□ Assembly point:
□ Other:

**SITE SECURITY:**

□ Access Control □ Barricades □ Perimeter fencing
□ Other: ___________________________________________________________________

**PRE-WORK SAFETY TOPICS:**

□ Task hazards review □ Stop work conditions □ Security
□ Emergency procedures □ Evacuation routes □ Other: _______________________
□ Chemical hygiene practices □ Spill procedures □ Other: ____________________

**FIELDWORK TEAM REVIEW & APPROVAL:**

NAME (print/sign): ____________________________________________ DATE: ____________

NAME (print/sign): ____________________________________________ DATE: ____________

NAME (print/sign): ____________________________________________ DATE: ____________

NAME (print/sign): ____________________________________________ DATE: ____________

NAME (print/sign): ____________________________________________ DATE: ____________

NAME (print/sign): ____________________________________________ DATE: ____________

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