IBC Policy—Research Accidents and Spills

Background

It is the responsibility of the Vice President for Research, the OHSU Research Integrity Office (ORIO), and the OHSU Institutional Biosafety Committee (IBC) to insure compliance with all federal regulations related to the conduct of research involving recombinant or synthetic nucleic acid molecules or other biohazardous materials. OHSU is required to implement a policy and program for response to accidents and/or spills of biohazardous substances, and reporting of such incidents.

Scope

This policy and procedure establishes internal procedures for immediate response to accidents and spills of biohazardous materials and for follow-up analysis to minimize the risk of recurrence in accordance with federal regulations, institutional policy, and IBC policy. Additionally, if the analysis determines that the incident resulted from failure to adhere to an approved IBC protocol, review processes are covered under the IBC policy for Protocol Deviations. This policy does not cover non-human primate exposures. See the OHSU Biosafety Manual for those procedures.

I. Policy
   A. Responsibilities
      1. OHSU Biosafety Officer shall:
         • Provide consultation or assistance as needed to personnel to safely clean up minor spills in their work areas.
         • Respond to and assess major spills.
         • Assist PIs in writing incident reports
      2. Principal Investigators/Supervisors shall:
         • Develop and maintain departmental/laboratory spill response procedures based on the biosafety level of the biohazardous materials being used or stored. These procedures will be made available to all lab personnel under the PI’s direction.
         • Ensure all lab personnel are properly trained to respond safely to a hazardous biological spill or release in their area.
      3. Lab Personnel shall:
         • Be trained on the proper use, handling, and spill response procedures related to biohazardous materials.
         • Wear personal protective equipment and use spill control equipment in the proper manner.
         • Promptly report all biohazardous spills to the PI/supervisor.
B. Immediate Response to Accidents and Spills of Biohazardous Substances—Standard Operating Procedures (SOPs)

The objective of lab-specific SOPs is to protect the health of the research personnel directly involved and to minimize the risk of exposure for other personnel or the possibility of release of the biohazard out of the laboratory. Personnel shall respond to such incidents following SOPs detailed in each laboratory’s Biosafety Manual assembled by the PI and for which personnel have received thorough training.

1. The immediate response to a biohazardous spill or release depends upon several factors, including the location of the incident, involvement of injuries and/or exposure, size of the spill, and biosafety risk group. The SOPs in the Laboratory Biosafety Manual must include guidance relevant to the particular risk group and organism involved.

2. Laboratory SOPs must address, at a minimum, the following scenarios:
   - Spills fully contained within a Biosafety Cabinet (BSC)
   - Spills outside the BSC
   - Potential exposures (e.g., a hole in a glove)
   - Injuries and documented exposures
   - Combined chemical and biohazard spills, if applicable
   - Combined radioactive and biohazard spills, if applicable
   - Spills outside the lab, in transit (e.g., in the hallway)

3. Laboratory SOPs must provide direction on responsibilities of personnel to seek medical attention, to notify the PI, a Biosafety Officer, or Public Safety as conditions warrant.

C. Follow-up

When there is a documented exposure to a BSL-2 agent (especially an agent involving recombinant or synthetic nucleic acid molecules), or after documented or potential exposure to a BSL-3 agent, each laboratory must develop a follow-up plan that includes health monitoring that will be commensurate with the estimated pathology of the agent in question. This plan will be developed in conjunction with Employee Health (Central Campus), the Occupational Health Nurse (West Campus), or Student Health (as applicable), and a Biosafety Officer.

**Reporting of Accidents and Spills** shall be the responsibility of the PI, who will complete an IBC Incident Report Form, in consultation with the Biosafety Officer and personnel involved in the incident, and submit the completed form to the IBC within the time frames indicated below. The IBC will review the form, interview those involved in the incident (if appropriate), write a final report, and submit the report to NIH/OBA as warranted. These incidents must be reported as follows:

<table>
<thead>
<tr>
<th>Type of spill or exposure</th>
<th>Reporting time frame</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spill outside the BSC of a Risk Group 2 agent&lt;sup&gt;1&lt;/sup&gt;</td>
<td>Incident Report Form must be submitted to the IBC within 10 days.</td>
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<tr>
<td>Documented exposure&lt;sup&gt;2&lt;/sup&gt; to a BSL-2 agent</td>
<td>Report immediately to the Biosafety Officer (see Contact Information below). Submit Incident Report Form to the IBC within 5 days.</td>
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<tr>
<td>Potential or documented exposure&lt;sup&gt;3&lt;/sup&gt; to a BSL-3 agent</td>
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<tr>
<td>Spill outside the BSC of a BSL-3 agent</td>
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</table>

<sup>1</sup> For BSL-2 agents, follow-up plans must be developed in conjunction with Employee Health (Central Campus), the Occupational Health Nurse (West Campus), or Student Health (as applicable), and a Biosafety Officer.

<sup>2</sup> When there is a documented exposure to a BSL-2 agent, each laboratory must develop a follow-up plan that includes health monitoring that will be commensurate with the estimated pathology of the agent in question. This plan will be developed in conjunction with Employee Health (Central Campus), the Occupational Health Nurse (West Campus), or Student Health (as applicable), and a Biosafety Officer.

<sup>3</sup> When there is a documented exposure to a BSL-3 agent, each laboratory must develop a follow-up plan that includes health monitoring that will be commensurate with the estimated pathology of the agent in question. This plan will be developed in conjunction with Employee Health (Central Campus), the Occupational Health Nurse (West Campus), or Student Health (as applicable), and a Biosafety Officer.
1It is important to distinguish between “Risk Group 2” and “BSL-2”. Human and non-human primate cell lines are considered BSL-2 but are not Risk Group 2 agents, therefore, spills of human cell cultures outside the BSC do not normally require reporting to the IBC.

2All exposures or injuries must also be reported to Risk Management through the Worker and Student Injury Reporting System by going to http://ozone.ohsu.edu/wsirs/.

Note: The IBC has determined that incidents of low-level risk, such as spills of non-recombinant human cell culture outside the BSC, do not require notification of the IBC. Incidents that do not require reporting to the IBC should nevertheless be reported to the PI/supervisor in order to review or revise SOPs so as to minimize recurrence of the event, or to prompt refresher training of personnel. An FAQ document on reporting can be found at the OBA website: http://oba.od.nih.gov/oba/ibc/FAQs/FAQS%20about%20Incident%20Reporting.pdf

II. Guidance

The OHSU Biosafety website contains SOPs that are provided as examples of laboratory responses to accidents and spills. Each PI may write and/or revise SOPs to meet the constraints of parameters that are unique to the research environment; however, the IBC reserves the right to require modifications of the SOPs to ensure safety of personnel.

III. Definitions

Documented Exposure- exposures including, but not limited to: skin punctures with contaminated needles or a splash that resulted in contact with eyes, mucous membranes, etc. Additionally, any potential exposure resulting in symptoms expected of the infectious agent must be considered a documented exposure.

Major spill – spill that spreads rapidly, presents an inhalational hazard, endangers people or the environment, and/or involves personal injury or rescue. These spills must be handled as an emergency by OHSU Public Safety.

Minor spill - spill with low potential to aerosolize and that presents no inhalational hazard and no endangerment to people or the environment. In cases of uncertainty, contact an OHSU Biosafety Officer.

IV. Contact Information

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<thead>
<tr>
<th></th>
<th>Central &amp; Waterfront Campus¹</th>
<th>West Campus²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergencies</td>
<td>503 494-4444</td>
<td>9-911</td>
</tr>
<tr>
<td>OHSU Public Safety</td>
<td>503 494-4444</td>
<td>503 494-4444</td>
</tr>
<tr>
<td>OHSU Biosafety Officer</td>
<td>503 494-0655, Pager: 503 202-3886</td>
<td>503 690-5312, Pager: 503 993-0216</td>
</tr>
<tr>
<td>OHSU Assistant Biosafety Officers</td>
<td>503 494-2580</td>
<td>503 690-5368</td>
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<td>503 690-5310</td>
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<tr>
<td>Risk Management</td>
<td>503 494-7189, or after hours, contact the paging operator at 503 494-9000, pager 11101</td>
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¹Includes OHSU personnel working at the Portland VA Medical Center

²Includes Oregon National Primate Research Center, Vaccine and Gene Therapy Institute and the Division of Science and Engineering.