I. PURPOSE
This guideline was developed to protect personnel working on roofs, equipment on roofs and using fume hoods from exposures to hazardous materials.

II. SCOPE AND APPLICATION
This guideline applies to all personnel, including contractors, working on the roofs of buildings with fume hood exhausts. This guideline shall be followed for work conducted on the roofs of the following buildings: Coatings Research Institute, Mark Jefferson, Marshall, Roosevelt, Sherzer, Sill and Strong. These procedures shall also be followed on any new buildings containing fume hoods and any additional buildings with similar exhaust hazards.

III. RESPONSIBILITIES
A. Physical Plant - Foremen
1. Foremen shall comply with the notification and coordination of fume hood shutdowns as required by this guideline.
2. Foremen shall enforce compliance with this guideline including disciplinary actions when necessary.
3. Foremen shall supply the necessary personal protective equipment for the project.
4. Foremen shall promptly investigate and report to Risk Management and Environmental Health and Safety all accidents and/or job related health problems.
5. Foremen shall enforce both lockout/tagout and fall protection requirements.
6. Foremen shall contact Environmental Health and Safety for issues regarding safety, health, personal protective equipment and/or related concerns.

B. Employees and Contractors
1. Employees and contractors shall comply with this guideline.
2. Employees and contractors shall wear the necessary personal protective equipment for the project. Contractors shall supply their employees with personal protective equipment.
3. Employees and contractors shall consult with their foremen or personnel from Environmental Health and Safety whenever there are questions regarding health and safety issues.
4. Employees and contractors shall report any job related injuries, illnesses, accidents and/or near misses to their supervisor.
5. Employees and contractors shall comply with lockout/tagout and fall protection requirements.
C. Building Administrators

1. Building Administrators shall work with the Physical Plant foremen to coordinate fume hood shutdowns to be the least disruptive to the laboratory staff.

2. Building Administrators shall notify the building occupants of the fume hood shutdown. This notification shall include but is not limited to posting the affected fume hoods with a sign (see Appendix A) indicating the shutdown and a memo or E-mail to the laboratory staff. In some cases, it will be necessary to coordinate the shut down with the building contact rather than the building administrators. Building contacts are as follows:

3. BUILDING CONTACTS

<table>
<thead>
<tr>
<th>Building</th>
<th>Contact Persons</th>
<th>Department</th>
<th>Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coatings Research Institute</td>
<td>Jamil Baghdachi</td>
<td>Coatings Research</td>
<td>7-3192</td>
</tr>
<tr>
<td></td>
<td>John Texter</td>
<td>Coatings Research</td>
<td>7-4587</td>
</tr>
<tr>
<td>Mark Jefferson</td>
<td>Donald Schoolmaster</td>
<td>Chemistry</td>
<td>7-0334</td>
</tr>
<tr>
<td></td>
<td>Marianne Laporte</td>
<td>Biology</td>
<td>7-4242</td>
</tr>
<tr>
<td>Marshall</td>
<td>Lynne Shetron-Rama</td>
<td>Clinical Lab Sciences Program</td>
<td>7-2381</td>
</tr>
<tr>
<td>Roosevelt</td>
<td>Subhas Ghosh</td>
<td>Textiles Research</td>
<td>7-2476</td>
</tr>
<tr>
<td>Sherzer</td>
<td>Jason DeMarte</td>
<td>Photography</td>
<td>7-1268</td>
</tr>
<tr>
<td></td>
<td>Brooks Stevens</td>
<td>Textiles</td>
<td>7-1268</td>
</tr>
<tr>
<td>Sill</td>
<td>Bob Lahidji</td>
<td>Engineering Technology</td>
<td>7-2040</td>
</tr>
<tr>
<td>Strong</td>
<td>Richard Sambrook</td>
<td>Geography/Geology</td>
<td>7-0218</td>
</tr>
</tbody>
</table>

4. If radioisotope work is conducted in the fume hood involved in the shutdown, the Radiation Safety Officer (Krish Rengan) must be contacted prior to the work being conducted.

IV. PROCEDURE

A. Preparation

1. Prior to conducting any work on fume hood systems, the Maintenance Foreman must coordinate the project with the building administrator and/or building contacts.

2. The building administrators/contacts must be given at least 2 days notice of a fume hood project in order to coordinate researchers work schedules.
3. Fume hood operation shall not be altered without prior notification of the laboratory staff.

4. If laboratory staff does not comply with the requirements of the fume hood shutdown notification, the work shall not take place until compliance is obtained.

5. Immediately preceding the start of the scheduled work, the building administrators/contacts, workers and/or the maintenance foreman shall inspect the affected fume hoods to verify compliance. At this time the fume hoods shall be tagged out of service with the proper signage.

6. If a fan shut down is required, the maintenance foreman shall determine who will turn the fan off and back on. This work shall comply with the Lock-Out/Tag-Out Program.

7. If the nature of the work requires fall protection (e.g. raised platforms, elevated duct work, etc.) all requirements of fall protection shall be followed.

8. If the work is on the Mark Jefferson roof, the EMUDPS-EHS-p003 Working on Building Roofs with Outdoor Warning Systems procedure must be followed.

B. Personal Protective Equipment

1. The nature of the project will determine the necessary PPE. Protective equipment includes the following:
   a. Gloves - The nature of the work will dictate the type of glove required. In general, latex and/or leather palm gloves will be required. For some fume hoods, acid resistant gloves may be required.
   b. Safety Goggles - Goggles shall also be worn when working on exhaust duct work, dampers and motors.
   c. Disposable Suit - When contact with the inside of the fume hood and/or exhaust duct work is required, a chemically resistant disposable suit shall be worn.
   d. Respiratory Protection - Whenever work on a fume hood system involves the potential for exposure to contaminated dust and/or exposure to residual chemicals, a respirator shall be worn. Contact Environmental Health and Safety for information on the appropriate respirator cartridges.

C. Completion of Work

1. If the repair will take longer than scheduled, the workers shall notify their maintenance foreman as soon as possible. The maintenance foreman shall notify the building administrator/contact to coordinate the extended shutdown.

2. All personal protective equipment shall be removed and properly disposed.

3. All locks and tags shall be removed from the affected equipment.

4. All locked-out/tagged-out equipment shall be put back in service and proper operation verified.

5. The workers or maintenance foreman shall notify the building administrator/contact of the completion of the work.
6. All notices posted on the fume hoods and laboratory doors shall be removed by the building administrator/contact.

7. The building contact shall notify the laboratory staff of the project’s completion.

V. REFERENCES

A. Appendix A – Fume Hood Temporary Shutdown Warning Sign
B. EMU Lockout/Tagout Program
C. EMUDPS-EHS-p003 Working on Buildings Roofs with Outdoor Warning Systems

VI. APPROVALS

Bilal Sarsour, Director, Facilities Operations Date

Kathryn Wilhoff, Director, Environmental Health and Safety Date

VII. HISTORY

Rev  Change(s)
0  Initial release
1  Changed format, updated building contacts and department names, updated loto for outdoor warning system