After Action Reviews

1. Purpose / Background
MIT will conduct an After Action Review (AAR) after campus Emergency Response incidents in order to determine the appropriateness and quality of response from the Institute Emergency Response Team (ERT), Cambridge Fire Department, ambulance, MIT waste contractors, and others who may be called upon to provide emergency services. The purpose of the AAR is to collect, distribute, and act upon information regarding the performance of the response to an emergency enabling more efficient, effective, and higher quality delivery of these services in the future. All level 3 emergencies, and select level 2 emergencies require an AAR. Emergency levels are described in Section 10 of this SOP.

2. Scope
An AAR is designed to review the response to an emergency only, not to investigate or evaluate the causal factors or root causes. The MIT Environment, Health, and Safety (EHS) Office investigates incidents and ‘near-misses’ using a separate procedure designed specifically for that purpose. Information from the incident investigation, however, can help inform the evaluation of whether the emergency response actions taken were appropriate to the incident and provide feedback for continuous improvement of emergency response services.

The AAR focuses on three major areas:
- those response activities that worked well (and why);
- those response activities that need reconsideration or modification; and,
- any recommendations regarding communications, training, procedures, or other systems and conditions to improve the emergency response process.

3. Prerequisites
The level of the incident, and determination of whether personal injury, destruction of property, or damage to the environment occurred are all considered in determining whether an AAR should be conducted for a given incident. Prior to an AAR and promptly after an incident, the Director of EHS Programs, the MIT Police Chief or their designee(s) may assign personnel to collect data, photographic or other evidence, or otherwise investigate the incident for discussion and analysis at the AAR.

4. Procedures
4.1 The Manager of EHS Programs, the EHS Office Director, or the Emergency and Business Continuity Planner will often initiate an AAR; EHS Coordinators, however, may request an AAR following an incident affecting his/her Department, Lab, or Center (DLC). The AAR is typically attended by those representing DLCs involved in providing the emergency response: the Department of Facilities (DoF), MIT Police, Security and Emergency Management Office (SEMO), EHS Office, the MIT Emergency Response Team Leadership Team (ERT LT), and other responding campus groups (e.g. Medical, Information Systems). Representatives of the affected DLCs, including the Principal Investigator (PI)/Supervisor, individual(s) involved,
and the EHS Coordinator are requested to attend. EHS Lead Contacts are requested to attend by virtue of their service relationship with the DLC involved.

4.2 The AAR is conducted as a 1-hour meeting. The Emergency and Business Continuity Planner (or designee) develops a list of individuals whose presence at the AAR is requested based on his/her involvement in the incident/response, and establishes a meeting location, date, and time with these individuals. The following individuals are expected to attend:

- Individual(s) involved in the incident;
- the PI(s) or Supervisor(s);
- the Environment, Health, and Safety, (EHS) Coordinator(s) for the DLC(s) where the incident occurred;
- the EHS Office Lead Contact(s) for the DLC(s) involved; and
- MIT individuals who responded to the emergency. Individuals formally assigned to emergency response and individuals providing aid during the incident (e.g., lab mates) are included in this category. This group also includes the individuals from the EHS Office who responded to the incident as part of the rotating EHS Response program, as well as the Student Emergency Medical Service (SEMS), part of the Medical Department.

4.3 In order to facilitate the discussion, the preferred location for the AAR is the DLC where the incident occurred. The EHS Office is the default location for conducting the AAR if the incident location is either impractical or the discussion is of a very sensitive nature.

4.4 The Emergency and Business Continuity Planner is responsible for completing a report which identifies the outcomes of the review.

4.5 The AAR report is distributed to the participant groups to assure accuracy and serves as a record for all participants to incorporate into their planning, preparedness, response, and recovery procedures.

4.6 Action items based on recommendations are assigned to individuals/DLCs. The Emergency and Business Continuity Planner is responsible for documenting and tracking AAR recommendations, although specific action items may be assigned to other parties (e.g., EHS Office, Operations Center, DLC EHS Coordinator).

4.7 Final AAR reports are distributed to the individuals involved in the incident/response; the EHS Office Emergency Preparedness and Response Service Team; the Insurance Office (in the case of a fire/property damage/loss); and the MIT EHS Office Safety program.

4.8 If personnel otherwise not present at the AAR have information relevant to the discussion, then s/he should report that information to an AAR attendee.

5. Roles & Responsibilities

5.1 Key Personnel (These individuals, teams, groups or DLCs shall be present at the AAR):

- **Emergency and Business Continuity Planner (or Designee)**
  The Emergency and Business Continuity Planner is responsible for all non-police, non-medical related Institute emergency response. This individual will call for the AAR, based upon the above-established criteria or other circumstances. The Emergency and Business Continuity Planner, or designee, will conduct the AAR.
EHS Emergency Preparedness and Response Service Team (EPRST) Representative
The EHS EPRST has the responsibility for EHS response to Institute emergencies and the interaction between EHS emergency response and other Institute emergency responders. The EHS EPRST Leader and/or their designee will attend the AAR.

Emergency Response Team Leadership Team Representative(s)
The ERT LT is the team that acts as Incident Commanders for all non-police, non-medical Institute emergencies and typically comprises staff from key Facilities units, the Emergency and Business Continuity Planner and the Manager of EHS Programs. The members of this team who participated in the emergency being reviewed will, as a minimum, be present at all AARs. If possible, the ERT LT person who acted as incident commander should not lead an AAR. This will help the incident commander participate in the After Action Review and maintain neutrality in the evaluation.

MIT Police Chief (or Designee)
MIT PD responds to all Institute emergencies regardless of their nature. As the likely first to arrive for most emergency situations (effectively first responder), a representative from MIT PD is critical to the AAR.

Affected Clients and DLCs
Representatives from the affected DLCs are crucial to evaluating events and responses, particularly to an incident under review.

5.2 Other Related Groups and Parties (these groups and teams may be invited to an AAR in the event they were involved in the emergency response):

MIT Department of Facilities (DoF)
Many DoF Repair and Maintenance personnel are involved in the Institute Emergency Response Team, either directly or in a support function. If they have pertinent information relative to the ARR, they will be invited to attend.

Note: Other DoF groups that regularly provide support also include Building Services and the Operations Center.

MIT Medical
MIT Medical includes the services of the Student Emergency Medical Technicians (EMTs). Known as the Student Emergency Medical Service (SEMS), this group and/or the Urgent Care facility may be involved in the Institute response. When they have a role in the emergency, these representatives will be invited to attend the AAR.

Note: This procedure is primarily designed for non-police, non-medical emergencies. Some fires, floods, hazardous materials emergencies, or utility related emergencies may involve injuries, illness, or medical care and therefore MIT Medical may play a role in both the response and review.

MIT Student Life Programs (SLP)
6. **Training**

Personnel conducting an AAR are expected to read and understand this SOP; this is typically best done by observing one or more AARs then co-leading an AAR with the Emergency and Business Continuity Planner. Members of the Emergency Response Leadership Team or the EHS Emergency Preparedness and Response Service Team should be prepared to lead an AAR if necessary.

7. **Monitoring Requirements**

N/A

8. **Record Management**

A report will be produced from each AAR (as described in section 4.0, above). The completed AAR document that includes all comments regarding the incident will be retained in accordance with the MIT EHS Office Records Retention SOP. Since sensitive information may be shared during an AAR, the report shall not be distributed to groups outside the participating groups without the permission of the Director of EHS Programs, the Director of the EHS Office or the MIT Police Chief. Sensitive information or circumstances should be reviewed with the MIT General Counsel’s Office prior to release of the report or any supporting materials prior to distribution to any outside parties. The action items will be distributed to the appropriate DLC.

9. **References**

MIT Emergency Operations Manual

9.1 **Standards**

N/A

9.2 **Other SOP/ SOGs**

EHS Response System (EHS-0010)
EHS Incident Investigation (EHS-0073)
EHS Office Records Retention (EHS-0021)

9.3 **Supplementary Documents**

MIT Emergency Operations Manual
10. Definitions

The following terms are adopted from the MIT Emergency Operations Manual and the MIT Incident Investigation Program:

**Level 1A Incident:** A very minor local incident that is quickly resolved with existing MIT resources and which does not require additional monitoring. This level of emergency includes injuries which are very minor and do not result in medical treatment beyond first aid or in days away from work, restricted work or job transfer (other than on the day of the injury).

Examples of Level 1A incidents may include:
- a minor cut or small bruise;
- minor smoke contained in a lab hood, with no significant damage or disruption to work beyond the initial response;
- a minor chemical spill in a secondary containment bin or on a bench top; or
- odor complaints which are resolved and require no further monitoring.

**Level 1B Incident:** A relatively minor local incident that is quickly resolved with existing MIT resources or limited outside help. This type of emergency has little or no impact on personnel or normal operations or facilities outside the locally affected area.

Examples of Level 1B incidents may include:
- an injury which results in restricted work or job transfer or less than 5 days away from work;
- smoke or a small fire causing only minimal damage in a single lab room;
- a minor spill on the floor; or
- odor complaints requiring some follow-up.

**Level 2 Incident:** A critical incident emergency that disrupts a material portion of the campus community (i.e., section of a building or larger), or a serious injury resulting in 5 or more days away from work but not in-patient hospitalization. These emergencies may require assistance from or notification to external organizations. These incidents may escalate quickly, threaten to cause injury or loss of life and have serious consequences for mission-critical functions, loss of material resources and/or special liability problems for the campus.

Examples of Level 2 incidents may include:
- serious injuries resulting in 5 or more days away from work;
- needle sticks;
- a fire or explosion causing or with the potential to cause significant damage to a single building;
- a major flood; or
- a major spill which posed a threat of environmental release.

**Level 3 Incident:** A very serious injury resulting in in-patient hospitalization or fatality, or a disaster involving the entire campus and surrounding community. Incidents resulting in in-patient hospitalization of three or more workers or any worker fatalities require MIT to notify outside agencies and must be reported to the EHS Office immediately (2-3477). A level 3 disaster would cause Institute operations to be suspended and the effects of the disaster...
would be wide-ranging. Resolution of the disaster would require Institute-wide cooperation and extensive coordination with external resources.

Examples of Level 3 incidents may include:

- an employee fatality;
- a fire involving significant damage to more than one building;
- a severe hurricane or major earthquake;
- a major environmental release; or
- a terrorist action.