

SEAS-PHYSICS-EPS SAFETY COMMITTEE

DOCUMENTATION PACKAGE FOR SAFETY OFFICERS

2009/2010

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1 Organization - SEAS/Physics/EPS Safety Committee

1.1 Chairperson and the Executive Committee

The *Chairperson* of the committee is responsible for the content, organization, and operation of the safety program. The chair ensures that all of the delegated work is carried out. The chair schedules meetings, forms the subcommittees, and develops systems to track the progress of the program.

The *Executive Committee* consists of the chairperson, the SEAS Executive Dean, the Director of Laboratories for both Physics and EPS, and the chair of the Safety Committee. It serves as the formal interface between the Committee and the faculty and serves to mitigate any issues that cannot be resolved by the individual *Safety Officers*. Major policy decisions or changes in direction are discussed by the Executive Committee before being presented to the committee at large.

1.2 Safety Officers

All members of the safety committee are defined as Safety Officers. Every research lab that uses any sort of chemical, laser, compressed gas, radiation, machine tool, or biological material must have a representative on the safety committee. The safety officers must make every effort to attend the monthly meeting. If they cannot attend, it is their responsibility to inform the chair. The meetings are normally held on the second Wednesday of the month at noontime, in Maxwell/Dworkin 119, from October through June.

In addition to the above criterion, the full Committee should have:

1. At least 4 people from the Engineering Sciences Laboratory (one from each floor).
2. At least, one representative per floor in Gordon McKay Lab
3. At least one representative from the third and fourth floors of 60 Oxford Street.
4. At least one representative from The Link, Cruft, and Maxwell/Dworkin.
5. At least one representative from Jefferson, and Lyman Labs.
6. At least one representative from Hoffman Lab and the Museum.
7. Staff technicians that interact with graduate or undergraduate students in teaching or research labs.
8. A machinist.
9. At least one graduate student who works in Pierce Hall
10. Appropriate administrative representatives that can help address generalized safety issues.
11. Others who might have particular expertise or interest that would benefit the work of the Safety Committee

In this context, one person can represent more than one entity.

Group representatives who are grad students or post docs should probably limit their service to the committee to three or four years. This policy serves as a method of spreading an awareness of safety throughout our community. These *Ex-officio* members positively reinforce the overall safety program. Technical staff working with incoming students should be permanent members of the Committee.

Safety officers function as the liaison between the committee and the students and staff in their area. Safety officers also function as *Fire Marshals*. In this role, they must familiarize themselves with the

egress paths in their areas so that they can direct the flow of traffic in the event of a fire and must develop an evacuation plan for their area. They must have an up-to-date list of the people in their area so it can easily be determined if everyone has left the building in case of an emergency. If during an evacuation there is any possibility that someone has not left the building, authorities such as fire department personnel must be immediately notified. They must identify any individuals in their area who might need special assistance during a building emergency. Groups that have members with mobility impairments need to plan ahead in the event there is an emergency evacuation of the building.

Another critical function of lab safety officers is to keep tabs on all new personnel working in their laboratories. There is no systematic way of knowing who is working in our labs and, therefore, the safety committee chair depends on safety committee members identify which new people need training. When this happens, e-mail Lenny Solomon (solomon@harvard.edu) and Anas Chalah (achalah@seas.harvard.edu).

All new personnel who work with any sort of chemical are required to attend the Environmental Health and Safety lecture on Lab Safety. This lecture is given once a month in Maxwell/Dworkin 119. Attendance at similar lectures given in the biology and chemistry departments is sometimes acceptable to fulfill this requirement. If you have a question about this matter, call the Safety Committee chair.

All new personnel working with laser systems are required to attend the Environmental Health and Safety lecture on Laser Safety. One can access the schedule for these lectures by going to the training section of the safety website.

Not necessarily a safety issue (but important none the less) is to understand the damage that could occur if building systems were suddenly turned off in your area in the event of a building emergency. For example, if the cooling water or electricity vanished, would that cause major damage to any of the experimental setups? If the hood ventilation was turned off might that result in any dangerous condition? If the answer to questions like these is “yes,” one should consider developing emergency shut-off procedures to minimize both damage and hazard exposure.

One committee member should be designated the role as *Scribe*. The scribe is responsible for recording the minutes of each meeting and for posting them on the safety website.

1.3 The Role of Environmental Health and Safety

From time to time the safety committee is in need of external expertise. For example, for questions pertaining to radiation or asbestos, outside help is often desirable if not necessary. The Environmental Health and Safety (EH&S) office has traditionally filled this role. The strong lines of communication exist between the committee and EH&S. The Associate Director of EH&S (for FAS) is invited to every safety committee meeting along with other members of the EH&S staff. The EH&S representative delivers updates at these meetings regarding university-wide safety issues, regulations, changes in safety policy, as well as reporting on any accidents that may have taken place. Safety committee members are free to contact any of these people to request any safety related information. Current members of the EH&S team include:

Area	Name	Phone	E-mail
Associate Director	Michael Labosky	6-0724	michael_labosky@harvard.edu
Chemical Safety	Amy Johnson	5-1823	amy_johnson@harvard.edu
Industrial Hygiene	Scott Ide	384-8264	scott_ide@harvard.edu
Hazardous Waste Disposal	Lance Schumacher	6-9152	lance_schumacher@harvard.edu
Laser Safety	Xiaowei Yan	6-2041	xiaowei_yan@harvard.edu
Ergonomics	Mary Streeto	6-0991	mary_streeto@harvard.edu
Radiation/Bio Safety	Sid Paula	5-2345	spaula@biosun.harvard.edu

1.4 The Role of the University Health Services

The University Health Services, located in Holyoke Center, is a full service mini-hospital, complete with an emergency room. After any and all accidents, the victim should be escorted to UHS as soon as possible. All accidents **must** also be reported to your faculty advisor as well as to the chair of the safety committee.

1.5 The Role of the Control Center

Harvard University maintains a 24-hour control center for building emergencies, 365 days a year. It is located in the sub-basement of the Science Center next to the chilled water plant. Any after-hours building emergency should be called into that number (5-5560). The control center is also used as an emergency contact for the shipping of hazardous substances.

1.6 The Role of the Harvard Police Department

The Harvard Police Department is a courteous, well-trained, user-friendly team of people. They are available for any type of emergency. Obviously, they should be the first ones to call if you feel that the security of your lab is being breached. Their 24-hour number is (5)-1212.

1.7 The Role of the Cambridge Fire Department

The Cambridge Fire Department has developed considerable expertise in the handling of toxic spills and chemical accidents. They have a complete, full-trained Hazmat Team. If you are ever in a situation in which there is a real fire or chemical, *do not hesitate* to call the Fire Department (5)-1511 or to pull the fire alarms.

2 Standing Subcommittees and Ongoing Services

Each fall the safety committee chair will assign the members to one or more subcommittees.

2.1 Lab Inspection Subcommittee

This is a task that lies at the heart of the safety program. This subcommittee is responsible for inspecting each research facility in SEAS, Physics, and EPS and consists of several teams of people. Each fall, the member assigned to chair a lab inspection team will draw up an inspection schedule for their area. These schedules are distributed to all the safety officers, to the pertinent Principal Investigators, and are posted on the safety website. After an inspection, the results are documented and sent to the safety committee chair. The results are then posted on the safety committee website. If necessary, the results are discussed verbally with the P.I. or his/her delegate.

The results are also read aloud at the subsequent safety committee meeting. The primary purpose of this exercise is to get everyone to consider similar issues or problems that exist in their own lab areas, and to rectify them **before** the inspection of their lab takes place.

At the meeting after the public reading, the local safety officer in each area that was cited for a possible violation reports to the full committee how each issue was resolved. If problems remain unresolved, they are brought to the attention of the chair.

Follow-up inspections are conducted each summer by EH&S. This inspection tries to further ensure that violations have been appropriately addressed. Typically, the results of the summer inspections are posted a week prior to the first meeting of the academic year in October.

A copy of the lab inspection checklists to be used as a guide can be found on the safety committee website. A second form, used during the EH&S follow-up inspections, is also posted.

2.2 Safety Equipment Testing Subcommittee

This subcommittee is responsible for the testing of all eyewash stations, deluge showers, and any other safety facilities that are not routinely tested by other offices at Harvard. All of these facilities must be tested at least once per year, and in the case of eye wash stations, more often. Usually this testing is done in the springtime in coordination with the Facilities Maintenance Department. The Assistant to the Dean for Facilities chairs this subcommittee. It is the responsibility of the individual safety officers to run all eyewash stations four minutes each week. This assures that there will be no buildup of bacteria and also serves to ensure that these devices are functioning properly.

2.3 Safety Training

An integral part of the safety program has been the offering of safety training. For many years the committee's Safety Seminar Series provided the lion's share of this training. In more recent years, EH&S has taken a larger role in the area. ***It is a responsibility of the safety committee members to disseminate training information to their individual group members and to identify which members of their group requires additional training. It's the job of the local safety officer to make certain that the members of their research group take in the appropriate safety lectures.*** If a problem

develops where a group member refuses to attend an appropriate training session, it is the responsibility of the local safety officer to report this to the chair.

A safety orientation session for all entering G-1s is offered and required by SEAS, EPS, and Physics. The scope of the talk varies by department and is given by the chair of the safety committee.

2.4 Chemical Hygiene Officer

The Chemical Hygiene Officer (CHO) is an employee designated by the department, and who is qualified by either training or experience, to provide technical guidance in the implementation of the Chemical Hygiene Plan (CHP). The chair of the safety committee serves as the SEAS CHO. In Physics and EPS, the lab directors have this role. The CHP is found on the safety committee website.

2.5 Hazardous Waste Disposal

Many of the safety officers also function as their group's Satellite Accumulation Area (SAA) monitor. In this role it is their responsibility to inspect their SAA every week. The area is inspected to make certain that the waste is stored properly, that the labels are correctly filled out, and that the waste is picked up in a timely manner (within three days after called 6-3322).

2.6 Spill Kits

A number of individual on the committee are designated as chemical spill kit monitors. It is their responsibility to make sure that the spill kits always are fully stocked. A list of where the spill kits are located and what should be in each spill kit, is found on the safety committee website.

2.7 Video and Book Resource Library

The safety committee maintains both written and video resource material on various aspects of safety. A listing of the libraries current contents is found on the safety committee website. To borrow any of these materials, contact Lenny Solomon (5-4215, solomon@huarp) and/or Anas Chalah (achalah@seas.harvard.edu).

3 Meetings

The safety committee normally meets from 12:00 to 1:00pm on the second Wednesday of each month, from October through June. The meetings are normally held in Maxwell/Dworkin 119. **It is the responsibility of each member to be there.** If for some reason you cannot attend, please send an e-mail to Lenny Solomon (solomon@harvard.edu) and/or Anas Chalah (achalah@seas.harvard.edu).

Lunch is always provided at these meetings.

The meetings usually consists of a training portion on some appropriate safety topic and a rundown of what has happened during the month. Typically, the discussion revolves around lab inspections, accidents that have occurred at Harvard and elsewhere, new and old regulatory issues, and any questions any of the members might have.

4 Safety Committee Members – 2009/2010

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