



AUDIT CRIB NOTES

For PIs and EHS Reps

What you need to know to pass the
Level III Audit of the EHS-MS



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INTRODUCTION

In the Spring of 2006, there will be an audit of the Environment, Health and Safety (EHS) Management System at MIT. Woodard and Curran, an operations and consulting firm, and the EHS Director from the University of Pennsylvania have been hired by MIT to conduct the audit. This booklet is to provide information about the EHS Policy and EHS Management System, the audit process, and possible audit questions, to help Principal Investigators (PIs) and their EHS representatives prepare for the audit. **Note:** The term “you” used in this booklet refers to the PI and the EHS Rep. PIs play a key role and have significant responsibilities in the EHS Management System. To assist them with their responsibilities, most PIs designate a person in the lab to be an EHS representative.

EHS POLICY AND EHS MANAGEMENT SYSTEM

It is important for you to be familiar with the EHS Policy and the EHS Management System. The EHS Policy states in part that “MIT is committed to excellence in environmental, health and safety stewardship on our campus, the larger community of which we are a part, and globally.” This commitment ranges from compliance with regulations and good practices to providing educational opportunities to members of the MIT community regarding EHS matters. To assist with meeting this commitment, the EHS Management System has been established. The web page for the Management System is <http://mit.edu/ehs-ms/>. From this web page you can access the EHS Policy, and read it. The web page also contains the EHS Manual that describes the management system and your roles and responsibilities, and the information and tools developed to support the management system. Please take some time to go to this web page and see what is there. You should bookmark this web page, since it is a gateway to most of the components of the management system.

Key components of the management system are:

- o **Organization.** Everyone at MIT has a role in the management system and must be aware of their responsibilities.
- o **PI/Space Registration System,** a system to identify core hazards associated with research and work at MIT that includes a web database
- o **Training.** All personnel using chemicals or working with other hazards (e.g., biological agents, radioactive materials, or lasers) must be trained.
- o **Inspections,** a process to check that problems are identified and corrected and that best practices are found and shared.

AUDIT PROCESS DESCRIPTION – The audits will be conducted by teams consisting of two auditors with an EHS staff escort. The teams will interview individuals, with interviews lasting 20 minutes. The EHS staff escort may clarify a question, but will not ask or answer any questions. During the recent pilot audit, auditors first reviewed EHS Management System reports on the Departments, Labs, and Centers (DLCs) that included information on the PI/Space Registration, the EHS training status of DLC personnel, and the Level II Inspections findings. When they conducted the field audit, the auditors met first with the Department Head, then the EHS Coordinator, then several PIs and their EHS Reps. They also visited one or two labs, typically of the PIs they had talked to. With PIs and Reps, they began the interview process by getting a little background about their research, the size of the group, and the types of hazards (chemical, radiological, and biological) that may be involved in the research.

TYPICAL QUESTIONS – Below are some of the questions the auditors may ask in the spring based on the pilot audit. Auditors are free to ask whatever questions they want to and your answers to their questions might determine their next question. In other words, they are not required nor do they intend to follow a script. Remember, this is a systems audit, so they are trying to understand how the EHS-MS is functioning in the DLCs. For help with any of the information and tools described below, your EHS Coordinator is a good resource.

1. Who is your DLC EHS Coordinator? Who is your EHS Office Lead Contact?

If you do not know the answer to this question, contact the EHS Office at 2-3477 or environment@mit.edu. If you have not met your EHS Coordinator or Lead Contact, it would be helpful to you to do this soon, preferably before the audit in the spring.

2. Does your Department have an EHS Committee and what is its function?

The Department is required to have an EHS Committee as part of the EHS-MS. The purpose of the DLC EHS Committee is to decide departmental EHS policy and decide what consequences will occur for poor EHS performance. It has a faculty member as chair and the EHS Coordinator and Lead Contact also are on it.

3. Whom do you go to if you have EHS-related questions?

The best place to start is with your EHS Coordinator. You can also always ask your EHS Office Lead Contact or go directly to the EHS Office to contact the content expert. If the answer to the question results in a change in procedures in the lab, you should let others in the lab, including the PI, know this.

4. What kinds of information are in the PI/Space registration database about your lab?

The PI/Space registration database:

- o Is organized by DLC, and PI.
- o Contains environment, health and safety information about the spaces the PI has been assigned or the shared spaces the PI uses.

The EHS information includes:

- o The core hazards in the space e.g., chemical, biological, and ionizing and non-ionizing radiation, and some additional details on hazards.
- o Information about controls such as fume hoods, biosafety cabinets, and eyewashes and safety showers.
- o Emergency contact information that can be used to generate the green cards posted outside each lab door.

The space registration database can be accessed by going to <http://mit.edu/ehs-ms/> and clicking on the PI space registration button. The EHS Coordinator set up the original database information. The PI and/or the EHS rep should periodically check this information and let the EHS Coordinator know when any of this information needs to be changed.

5. What do you do when you get a new core hazard or hazard type? (For core hazards and hazard types, see question 4). What do you do when get a new chemical?

If a lab gets a laser for the first time, that would be a new core hazard, e.g., a non-ionizing radiation source.

- o Contact the EHS Coordinator to let them know the PI/Space registration needs to be updated.
- o Contact the EHS Office so they can register the laser and review the set-up.
- o Have people in the lab who will work with the laser update their Training Needs Assessment and complete the training.

For a new chemical:

- o If it is a new hazard chemical type, e.g. hydrofluoric acid in an area that has not handled this acid before or a flammable solvent in an area that has not handled flammable chemicals, notify your EHS Coordinator so they can update the PI/Space registration, if necessary.
- o If applicable, report the chemical in the next SARA report cycle
- o Users of the new chemical need to review the MSDS for the chemical and add it to the lab's chemical inventory if the lab has one. They should also review the Chemical Hygiene Plan information regarding the hazard type to which the chemical belongs, and they may need to develop an SOP or have appropriate signs put in place.
- o Contact the EHS Office if there are any questions about proper storage, use, or waste practices with the new chemical.

6. Describe the process for ensuring people have the appropriate EHS training.

- o New people must take the training needs assessment (a tool of the EHS-MS) prior to commencing their work. Tell them to let you know if they need help choosing the right EHS activities.
- o The training needs assessment is linked from the training web page. The training web page can be accessed by going to <http://mit.edu/ehs-ms/>, and clicking on the Training button.
- o The link to web courses and sign-up for classroom courses is right in the Training Needs Assessment.
- o Personnel must get their training done before they start working with hazardous materials in the lab. You should give them their lab-specific chemical hygiene training.
- o Some training is required on a periodic basis. For this training, you and personnel in the lab will get reminder e-mails from the system and sometimes from the EHS Coordinator to follow up on training.

7. Where do you go to find EHS training reports for your lab?

- o You can find training reports on the Training Web Page noted above. Click on "For Report Managers" in the purple section on the left side of the page.
- o You should check reports periodically to determine the training status of personnel in the lab. A good time to check reports is 30 days after most of your new people arrived and a month or so before your next semi-annual inspection.

- o Findings that must be corrected will be classified as either:
 - Corrective Actions (CA), e.g., actions that are serious, that must be corrected, and must be tracked, or
 - Recommended Actions (RA), e.g., actions that must be corrected but are unintentional, easily addressed and do not pose immediate risk to environment, health or safety.
- o There is a link to the SAP inspection module in the e-mail report of the inspection. The PI must respond to the report (for items assigned to them) by clicking on the link and entering into the “my actions” sections they will see for all identified CA and RA. (**Note:** Some DLCs may not track RA).

8. Inspections. The following set of questions all relate to the inspection process for the EHS Management System. Inspections are a key component of the system and ensure regulations and good practice are being followed, that problems are corrected, and that improvements are made.

8.1 Do you conduct weekly inspections (Level I Inspections) of your lab area? Who performs these inspections and what do the inspections include?

Weekly inspections are to be conducted in the lab, usually by either the lab EHS Rep or his/her designee. There is a standard checklist of questions that focus on issues related to health and safety, and issues related to environmental management--primarily Satellite Accumulation Areas (SAAs).

8.2 Where do you find the checklist? What procedure do you follow if you find an item which must be corrected?

- o The checklist is found on the Tools web page at: http://mit.edu/environment/ehs/rep_tools.html.
- o The EHS rep should be able to demonstrate that they can find or have a copy of the inspection checklist.
- o Problems found must be corrected. Most problems can be corrected at the time of the inspection. For items not readily correctable, the PI/Supervisor must develop an action plan to address the problem.
- o Maintaining records of these inspections is optional, but the inspections must be done.

8.3 How often are DLC wide (Level II) inspections conducted in your DLC and who performs them?

These inspections are conducted twice each year by the EHS Coordinator, representatives of the EHS Office, and, in some DLCs, members of the DLC EHS Committee.

8.4 How are Level II results communicated to you? How do you follow-up to this report?

The PI and the EHS Rep receive an e-mail report from the coordinator that identifies the results of the inspection.

9. What would you do if you repeatedly asked someone to complete their training or to implement a corrective action from an inspection finding and they ignored you?

EHS reps should let the PI know so the PI can take care of it. PIs should address personnel problems according to standard human resource (HR) procedures in your DLC, which may involve your Administrative Officer, Department Head, or other formal HR action.

10. What is your responsibility to any visitors to the lab such as Department of Facilities personnel or lab equipment repair personnel?

To inform them about the hazards in the lab and precautions they should take while in the lab, such as wearing safety glasses. You should make sure they do not come into contact with hazards in the lab. You also need to inform them about evacuation procedures in the event that an emergency occurs when they are there.

11.a What do you do if a fire emergency occurs in the lab?

For smoke or fires, always pull the fire alarm and evacuate.

11.b What do you do if there is a non-fire emergency?

It depends on the level of emergency. Pull the fire alarm if it serious enough to warrant evacuating the whole building. Dial 100 when you need help but don't need to evacuate the building. Note: You can refer to the MIT Emergency Response Guide posted in the lab.

12. What do you do if a major chemical spill occurs in the lab?

Pull the fire alarm if the spill necessitates evacuating the building, e.g., it is in a common area such as a hallway. Otherwise, get people out of the lab, close the door and dial 100, which is Campus Police dispatch. You should let them know what help you need and they will send it. It could be an ambulance, or it could just be that you need help from EHS to clean up the spill or both. Note: You can refer to the MIT Emergency Response Guide posted in the lab.

13. Does the EHS Management System require that you keep a chemical inventory?

No, the EHS Management System does not require you to keep chemical inventories, though it is recommended. Your lab's SARA reporter is required to do SARA reporting on specific chemicals once per year through PI/Space Registration in SAP. Internally you may also be keeping a list of the chemicals, quantities, and locations in addition to the SARA reporting, which is a good practice. If you need more details about SARA reporting, contact the EHS Coordinator.

14. What do you do to follow up on accidents involving injury to personnel, or other non-injury accidents or incidents such as a spill?

- o For injuries to laboratory personnel, PIs or their designee must submit an injury report within 24 hours. The tool for reporting injuries is at:
<http://mit.edu/environment/ehs/topic/accident.html>
- o All incidents or injuries should be investigated to determine the cause of the incident. Action should be taken to correct problems found.
- o Problems found should be corrected. Corrective action may include correcting an equipment or facility problem, a work practice, providing additional guidance, protection, or additional training.
- o EHS Office staff will be involved in the investigation of accidents resulting in serious injuries, and incidents resulting in significant property damage. EHS Office staff are available, on request, to assist with all investigations.