

# Laboratory Safety Coordinator Meeting

Spring 2012

# Last Meeting- Fall 2011

- Near misses in the laboratory
- Navigation of the LSC-Tool-kit and sources available for your assistance
- New Personnel and the new online training

# INSPECTIONS AND INCIDENTS

# Incident Metrics Q1 2012

Count of Brief Description	BMC	BUMC	CRC	Grand Total
Animal Bite		1	2	3
Chemical spill			3	3
Cut/worker injury			1	1
Fire in Fume hood			1	1
Fire/Fire in fume hood (sodium)			1	1
Microtome cut		2		2
Misc/AHU failure		1		1
Misc/Facility BSL3		3		3
Misc/Facility BSL3 Clinical	1			1
Needle stick/ Worker Injuries		1		1
Overheated hot plate			1	1
Puncture / Scissors		1		1
Puncture / Tweezers		1		1
Grand Total	1	10	9	20

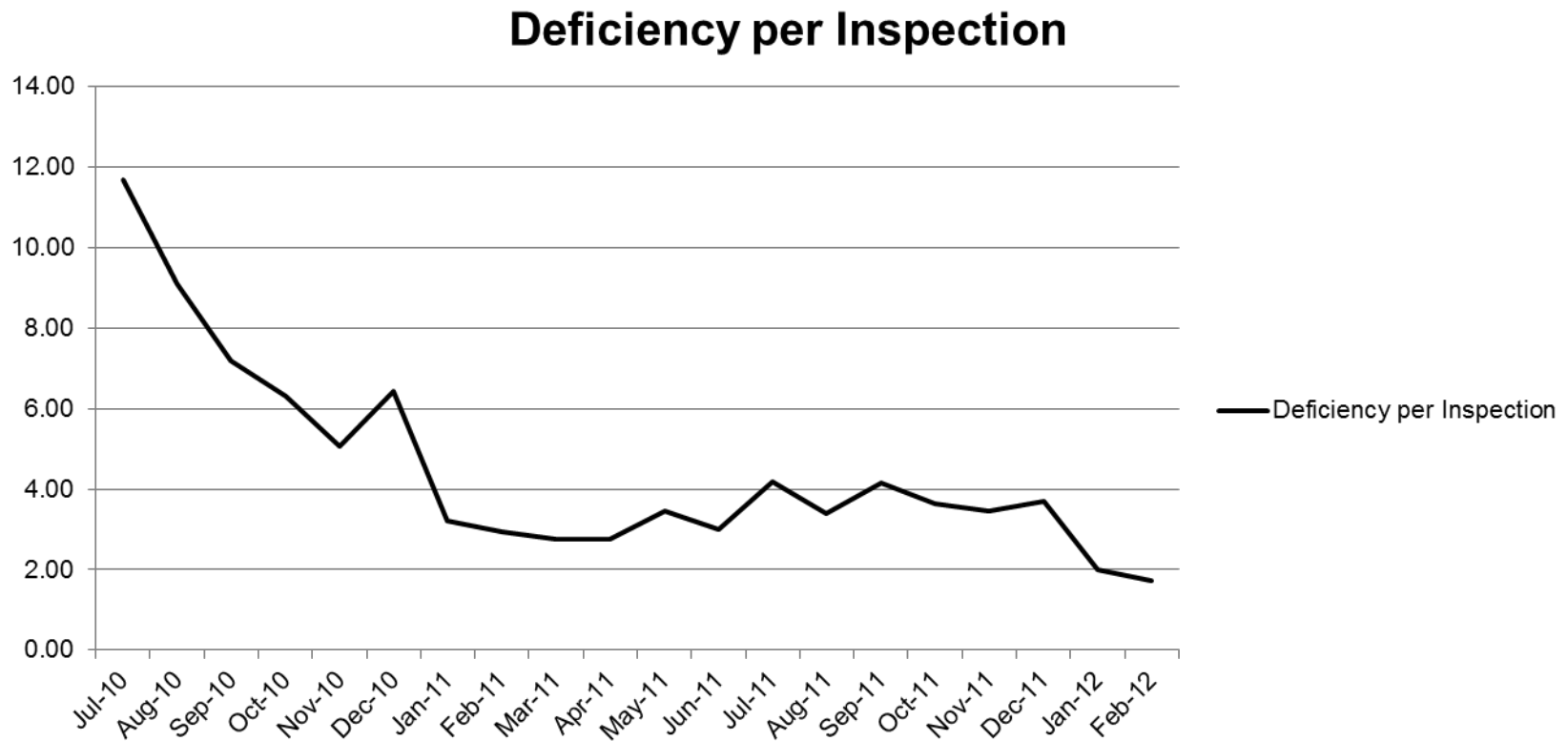
5 out of 20 did not report to EHS

# Incident Metrics Q1 2012

- Total Number of inspections
  - 321
- Total Number with Deficiencies
  - 252
- Average Number of findings per inspection
  - 1.83

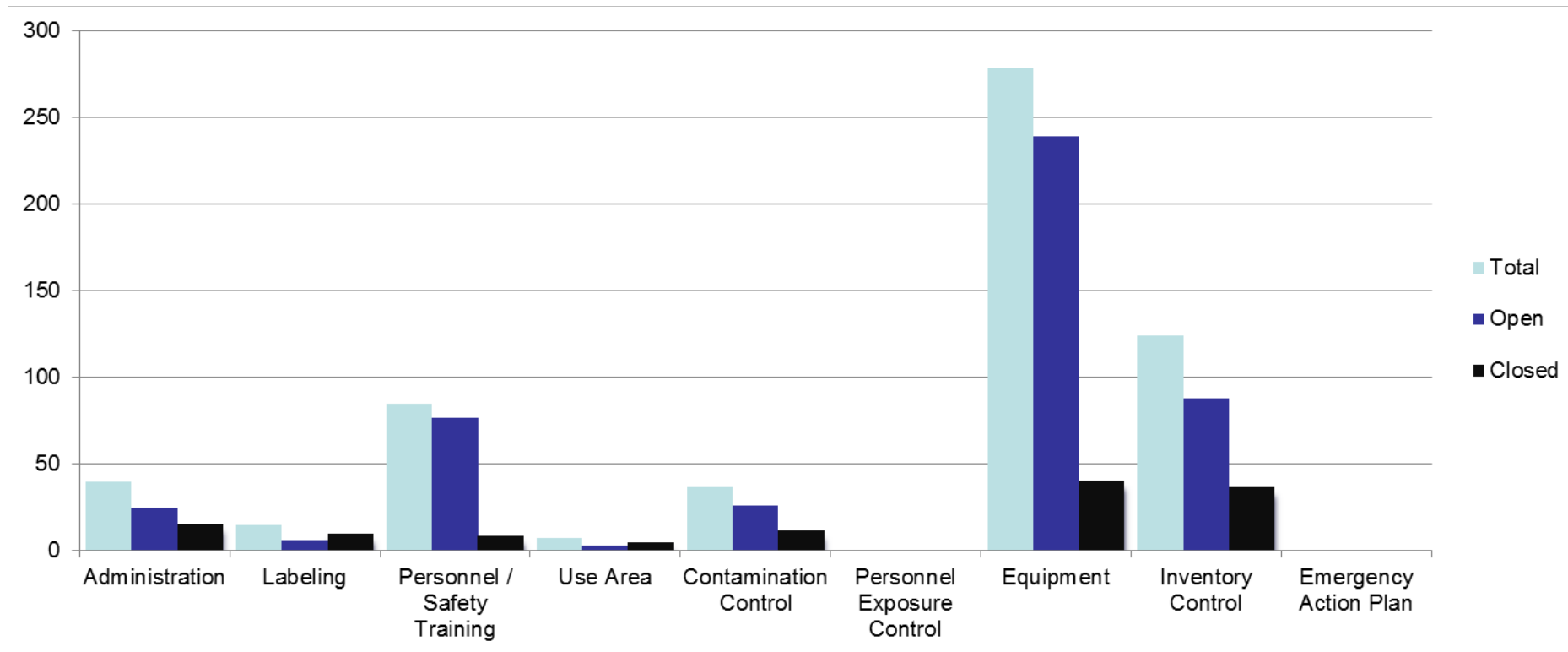
# Trend of Deficiencies per Inspection

## July 2010 – Feb 2012



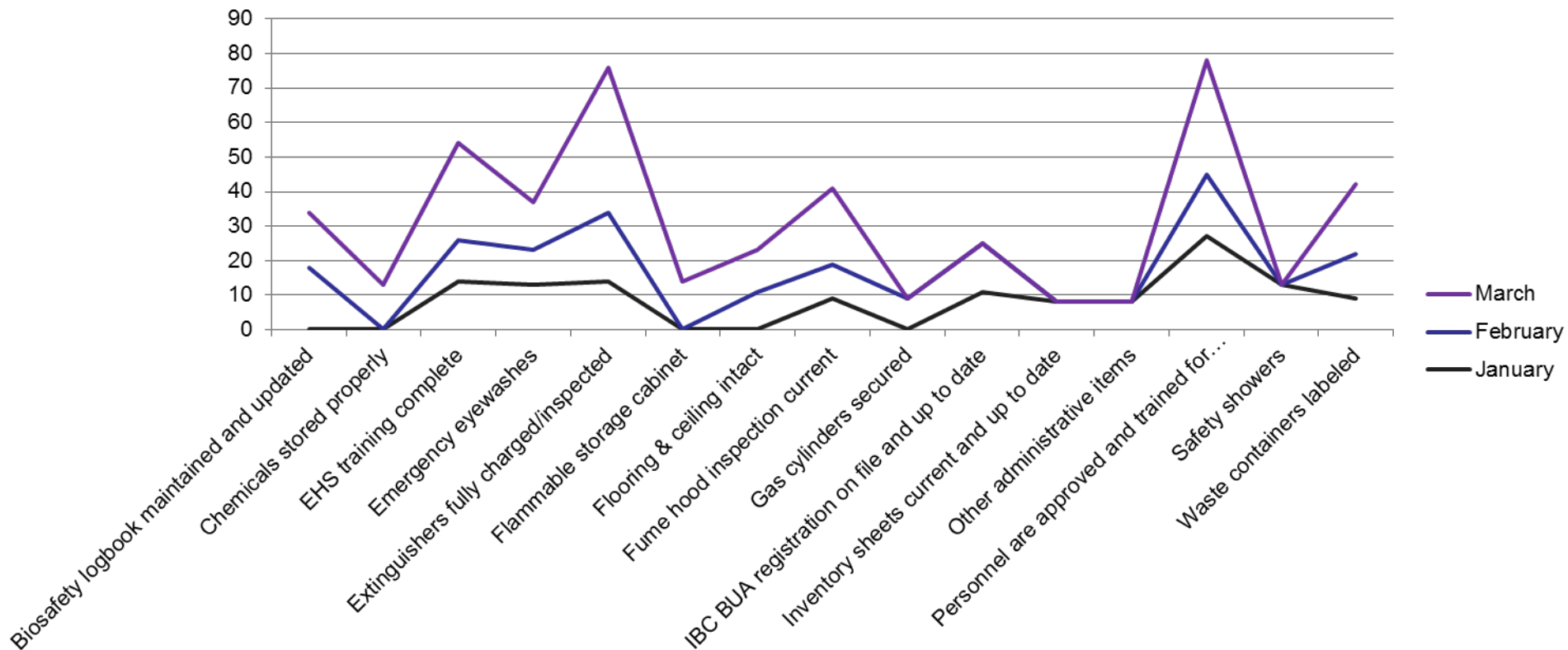
# Incident Metrics Q1 2012

- Top findings by category Jan-Mar 2012



# Incident Metrics Q1 2012

## Detailed Findings Jan – Mar 2012





# RESPONDING TO INCIDENTS IN THE LAB


# Biological Incident

A member of your lab group is working with ATCC HELA cells, that are screened to be non infectious. During the end of the process the glass pasture pipette is being placed in the sharps container when it breaks! Causing a small laceration to the researcher that is not deep, but there is visible blood. This causes a quick startle and spill of some media in the biological safety cabinet and on the researchers lab coat.

What is the response?



# Follow up actions- biological incident

- Wash and cover affected area
- Remove contaminated clothing
- Report Incident to Research Occupational Health Program (ROHP) and follow instructions provided
- Keep the Biological Safety Cabinet on
- Spray with proper disinfectants and appropriate contact time
- Pick up glass with tweezers and place in sharps container
- Clean up area and place contaminated items in the  bio-waste container

# Chemical Incident

- A teaching assistant (TA) is assisting in the clean up after a busy lab day. There are multiple solutions of an acid/solvent mixture that need to be collected as hazardous waste. Running late and talking about the next exam with a fellow TA, one decides to consolidate two containers at once, this causes the funnel to slip and redirect a small amount into the TA's eye causing a serious injury!
- What do you do now?
- What are the root causes?

# Follow up actions- Chemical Incident

## Emergency Actions

- Assist to the eye wash
- Rinse for at least 15 min
- Lab Personnel call for Medical assistance
- (414-4444, 353-2121)
- Gather information, Material Safety Data Sheet (MSDS)
- Personnel notify ROHP



617-414 -7647

## Root Causes

- Was Personal Protective Equipment (PPE) Worn?
- Following Procedure?
- Distractions?
- Rushed?

# Fire incident

- John Q. Researcher decides to go for a very early and very well deserved long lunch on a beautiful spring day. Leaving his laptop on and open, and not returning for 2.5 hours. The laptop battery has a defect and overheats causing the stacks of paper to catch on fire! Another diligent workers a few bays away notices that the stacks of paper have caught and the fire spread, it seems too large to put out with a fire extinguisher at this point...
- What's next?

# Follow up actions- Fire Incident

## CRC

- **A**lert/Activate Alarm
- **C**onfine
- **E**vacuate ( Follow Route)
- **S**pecial Assistance
- Proceed to rally point
- Provide information to responders 353-2121

## BUMC

- **R**escue ( Patient care)
- **A**lert/Activate Alarm
- **C**onfine
- **E**vacuate ( Follow Route)
- Proceed to rally point
- Provide information to responders 414-6666

# RESEARCH OCCUPATIONAL HEALTH PROGRAM



# Research Occupational Health Program

## What is ROHP?

Focused on needs of research, laboratory and animal care faculty, staff, students and the administrative staff that support labs. Key initiatives established:

- **Contacts** — Website and 24/7 emergency phone support available for researchers and remote medical care providers
- **Communication** — Establish communication hub to researcher, medical care providers, BU stakeholders, IBC, IACUC and compliance agencies
- **Compliance** — Incident reporting to regulatory agencies; comprehensive medical surveillance and clearance process to maximize grant funding potential

# Research Occupational Health Program

## Staffing

- Led by Thomas H. Winters, MD and Occupational Health Officer and supported by:
  - Nurse Practitioner – Pat Urick
  - RN and Clinical Manager – Sandy Reno
  - Program Coordinator – Yolanda Rodriguez
- Supported by medical experts in Boston Medical Center Emergency Medicine and Infection Control

# Research Occupational Health Program

## Core Requirements

- NEIDL Pre-placement Surveillance
- Ongoing Surveillance for all laboratory personnel
- IBC Compliance
- Liaison and Reporting
- 24/7 Emergency Phone Support

# Research Occupational Health Program

## Medical Surveillance

- Initial Health Questionnaire
  - Establish baseline medical and immunization history
  - Review occupational exposure and risk to determine medical surveillance profile
  - Assess fitness for duty – is worker able to perform job requirements safely
- Respiratory Questionnaires
- Physical Examinations and Testing
- Immunizations, Vaccines, and Titers

# Research Occupational Health Program

## Medical Clearance:

- Immediate clearance
  - ROHP review of questionnaire indicates no further testing required
  - ROHP provides medical clearance notice to HR (new employee) or directly to researcher
- Further testing required
  - ROHP contacts researcher to schedule appointments for testing
  - Based on review of all test results, ROHP determines whether researcher is “medically cleared”
- Medical and immunization history, and all test results are protected by HIPAA

# MEDICAL SURVEILLANCE CARDS

- A surveillance card, similar to the one shown in the graphic, is provided for all BU laboratory workers.
- Card must be presented to a health care provider in the event of an unexplained illness.
- Card contains medical contact information including the BU website where the health care provider can agent specific information.





**Boston University Office of Research Compliance**  
**Research Occupational Health Program**  
**Medical Surveillance Card**

This card must be presented to a Health Care Provider in the event that the card holder has an unexplained illness. The Health Care Provider should consider the agents listed on the back of this card and contact the Boston University, Research Occupational Health Program (ROHP).

BU Medical Campus: Ext. 4-ROHP (7647)  
All Other Areas: 617-414-ROHP (7647)  
<http://www.bu.edu/roh>

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 HEALTH CARE PROVIDER 

The person carrying this card is a laboratory worker at Boston University and is involved with research with the biological agents/materials listed below. The possibility of exposure must be considered in the event of an illness.

For more information please contact the Boston University, Research Occupational Health Program (ROHP) 24 hour number 617-414-7647 and/or visit the ROHP web site at: <http://www.bu.edu/roh>

Agents:

# Research Occupational Health Program

## Ongoing Surveillance

- Annual questionnaires
- Annual respiratory questionnaires
- Annual or Bi-Annual Testing (TB)
- Additional physical examinations or testing if changes in work performed or job identified on questionnaire

# Research Occupational Health Program

## Liaison and Reporting Role

- BU Environmental Health and Safety
- BU Oversight Committees (IBC, IACUC, LSC, RSC)
- BMC Infection Control and Emergency Departments
- Local Public Health and Safety Agencies (Boston Public Health Commission)
- National Public Health and Safety Agencies (BPHC, NIH, CDC, AAALAC, etc...)



# Research Occupational Health Program

## Emergency Phone Support:

- Provides 24/7 emergency medical support
- Communication and intervention process workflow
- Agent cards with ROHP contact information
- Post-exposure notification process

# NEW DOCUMENTS

# Movement of Hazardous Material

- This guide has been developed to assist all personnel involved in the relocation of hazardous laboratory materials in accordance with appropriate regulations and policies at BU/ BMC. The successful transfer of hazardous materials from one laboratory to another location and decommissioning of the vacated laboratory requires thorough planning, coordination and management by multiple parties that will assume a variety of specific roles and responsibilities. This document is intended to facilitate collaboration between EHS and the laboratory PI and staff involved in the relocation of a laboratory, coordinate their efforts specifically focusing on the transfer of hazardous materials and any equipment associated with these materials.

# Document Location

- <http://www.bu.edu/ehs/management-plans/laboratory-safety/laboratory-relocation-of-hazardous-materials/>
- This document works in accordance with the laboratory decommissioning and decontamination document which is located
- <http://www.bu.edu/ehs/management-plans/laboratory-safety/laboratory-decontamination-and-decommissioning/>

# Chemical Containment for Animals

- Chemical Containment for administration in animals (CCL) Document
  - Specific to Animal users

# Personal Protective Equipment (PPE) Selection

- Summer reminder for PPE
- Closed toed shoes must be worn in the lab
- Long pants are required when working with or in the same area as hazardous chemicals or biological agents
- Suggestions:
  - Have a pair of scrubs available, bring a pair of shoes from home

# Chemical Information Sheets (CIS)

- Sodium Azide
- Pyrophorics
  - CIS provides information on:
    - Health Hazards
    - Physical Hazards
    - Training and Administrative Requirements
    - Use Requirements
    - Storage and Waste Requirements
    - Spill Procedures

# Microtome and Cryostat Safety Guides

- Provides Information Concerning:
  - Potential Hazards
  - Removal of the Blade
  - Cleaning
  - Use practices
  - Recommended PPE



# Up Coming Policies and Programs

- Chemical Safety Policy
- Autoclave policy
- Personal Protective Equipment (PPE) policy

# **SUSTAINABILITY AND SPRING CLEANING**

# Sustainability and Spring Cleaning

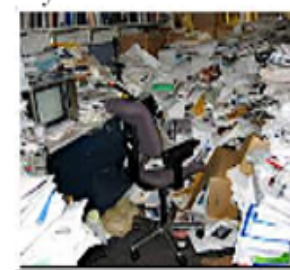
- Items to consider as we approach spring/summer
  - Will your lab be moving?
  - Will your lab under go renovations?
  - Will the scope of work change?
  - Will your personnel change?

[www.bu.edu/ehs/lsc-toolkit](http://www.bu.edu/ehs/lsc-toolkit)

# Spring Cleaning

## It's That Time of Year....Spring Cleaning!

Does your lab seem like it's shrinking? Old equipment and electronics starting to collect dust? Chemicals from students long ago still on your shelves? These dated items may pose a hazard if they are obstructing safety equipment, adding to the combustible load in the room, or being stored improperly. Boston University and Boston University Medical campus require the correct disposal of all our equipment and chemicals. Let us show you how!



**Electronic wastes-** such as computer monitors, CPUs, fax machines and printers, can be recycled at Boston University and the Boston Medical Center. Some components of these materials are toxic to the environment, and many others are valuable and can be reclaimed.

- **Medical Campus-** Ask a member of our custodial staff to remove these for you. They will bring these materials to designated collection areas for recycling.
- **Boston Medical Center-** The Information Technology Department collects all old computer equipment for recycling. Non-computer-related electronics should be disposed of through your area custodian.

# New LSCs, New Lab Members



**Boston University** Environmental Health & Safety

## **New Lab Safety Coordinators, New Lab Members**

### **What to do When You're Passing the Torch** **(First know your fire extinguisher locations!)**

Winter is over and the semester is winding down. You need to prepare for those leaving the lab, especially if it is you, and those about to join it in the upcoming months. Environmental Health and Safety would like to thank you for all your effort and participation in our Lab Safety Coordinator Program over the past few months. We have seen great improvements in creating positive relationships with the laboratories, improving inspection results, and increasing our safety culture here at Boston University. During any change of duties we can prepare to keep these relationships current and up to speed if we take the proper steps.

- Talk with your Principal Investigator to find a replacement that demonstrates responsibility as well a willingness to assist the lab with needs regarding safety.
- Introduce them to your Research Safety Specialist!
- Updated information may be needed for your door placards and emergency contact information for the laboratory.
- The Lab Safety Coordinator information should be updated on RIMS [www.bu.edu/rims](http://www.bu.edu/rims).
- Will this affect your IBC/IACUC protocols? Make the appropriate amendments.

# Laboratory Sustainability



**Boston University** Environmental Health & Safety

## Lab Sustainability

Through Boston University's sustainability initiative we have made great strides in energy efficiency, carbon reduction and recycling. Additional efforts in recycling and energy consumption can be made by selecting equipment and increasing user knowledge to enable behavioral changes. Take a look around your lab space for items that can be turned off or reduced at the end of the day. This can help increase both the safety and sustainability for your lab and office.

- ▶ **Create a Lab/Office Shut Down list:** Many items can be turned off at the end of the day:
  - ▶ Water baths, hotplates, heating blocks, solder iron and heat guns unplugged. Ensure refrigerators are closed tightly and at the right temperature

Always shut off the lights, and turn off computers when possible.

- ▶ Close variable air volume (VAV) fume hood sashes to reduce energy consumption. Please contact Environmental Health and Safety for an evaluation of your fume hood and process.

- ▶ **It's what you do.**

- ▶ **Think before you print:** Does an item need to be printed? Can it be printed on two sides of the document?

- ▶ **Lab recycling:** Can your waste (non-biologically, non-chemically contaminated items) be recycled instead of placed in the trash? Does your building have single stream recycling available? Are you aware of your universal waste areas on campus for batteries, light bulbs and toner?

- ▶ **Biological Waste** boxes are not a substitute for your trash can: These boxes are made from non-recycled cardboard, must travel a great distance to their disposal

# Conclusion

- We will continue tracking accidents and incidents,
- Emergency procedures, what type of lab are you? What are the possibilities that you should be aware of?
- ROHP available for 24/7 emergency information, initial health questionnaires and medical surveillance.
- New Documents affecting PPE, Chemical Safety, and Laboratory Moves.
- Lab Sustainability information can be found on [www.bu.edu/ehs/lsc-toolkit](http://www.bu.edu/ehs/lsc-toolkit)
- <http://www.bu.edu/ehs/toolkits/lsc-toolkit/lscmtgform/>