Laboratory Safety

Purdue University Nuclear Engineering

Nuclear Engineering Safety Briefing Aug 2008
Why is safety important?

- Prevention of injury
- Prevention of loss
- Prevention of lost time
- Prevention of lawsuits
Purdue Safety Requirements

- Executive Memorandum C-36, the Revised Environmental Health and Safety Compliance Policy, appoints the Vice President for Physical Facilities as the Environmental Health and Safety Compliance Officer (OSHA Officer) for Purdue University. C-36 requires Purdue staff to comply with all applicable environmental health and safety (EHS) laws, policies, procedures, and instructions. The OSHA Compliance Officer is responsible for and authorized to develop and implement EHS programs and coordinate and monitor compliance.
• Principle Investigators (PIs) and Lab Supervisors are responsible for safety and lab training.

• But, in the end, you’re really responsible for your own safety.
Integrated Safety Plan

• The Integrated Safety Plan (ISP) is REM's strategic plan for safety at Purdue. It provides a structure to communicate environmental, health and safety issues across the organization. Working toward increased awareness, the Integrated Safety Plan provides a mechanism for safety committees, self-audits, and departmental indemnification from regulatory fines.
Radiological and Environmental Management-REM

- REM serves as a consultant to the University Community in all safety related areas.
- Assists in monitoring regulatory compliance with various federal, state, and university regulations involving environmental, health and safety issues.
- Services include training, consultation, emergency response, and waste removal.
- http://www.purdue.edu/REM
HazCom

- The Hazard Communication Standard (HCS) is an Occupational Safety and Health Administration (OSHA) regulation. HCS may also be referred to as the Right-to-Know Law or RTK. The citation number is 29CFR1910.1200. HazCom, as it may also be called, is a standard intended to protect employees from physical and health hazards that they work with or be exposed to.
Radiation Safety

• The Radiation Safety Section is responsible for complying with regulations set forth by the Nuclear Regulatory Commission as well as the Indiana State Department of Health for the safe use of radioactive materials on campus. REM accomplishes this by providing several types of training, radioactive waste pickups, calibration services, personnel dosimetry to monitor radiation exposure, as well as consulting support for all of your safety concerns.

• RSO: Dr. Jim Schweitzer, 49-42350, jfschweitzer@purdue.edu

Laser Safety

- Based on the President's Executive Memorandum No. D-2 and the Purdue University Laser Safety Guidelines, individuals are officially authorized to use Class 3B and Class 4 lasers on their respective projects upon receiving appropriate laser safety training, demonstrating competency, and submitting complete application forms bearing the authorization name and signature of the Laser Principal Investigator (LPI).

- Laser Safety Officer: Mary Handy, 49-42721, maryjo24@purdue.edu

Biological Safety

• It is the policy of Purdue University to take every reasonable precaution to provide a work environment that is free from recognized hazards for its employees in accordance with the General Duty Clause of the Indiana Occupational Safety and Health Law (IC 22-8-1.1 Section 2).

• Laboratory supervisors and principal investigators are responsible for biological safety in the laboratory.

• BioSafety Officer: Bob Golden, 49-41496, rgolden@purdue.edu

• http://www.purdue.edu/REM/home/booklets/bioman.pdf
Chemical Hygiene Plan

- This manual gives Federal, State, and University requirements and expectations relating to the OSHA Laboratory Standard, 29 CFR 1910.1450. This standard applies to areas of laboratory use and of hazardous chemicals. (2003)

Other Hazards

- Use appropriate Personal Protective Equipment (PPEs)
- Use Lockout/Tagout Procedures when entering a dangerous area
Proper Storage of Hazardous Materials

- Make sure all materials are stored properly.
- Make sure all containers are properly sealed and labeled.
- Make sure all waste containers are properly sealed and labeled.
Hazardous Materials Management

- Purdue manages hazardous waste under a permit granted to Purdue by the Indiana Department of Environmental Management and the United States Environmental Protection Agency. It is the responsibility of each hazardous waste generator to manage their waste according to Executive Memorandum No. C-36 and Guidelines: Handling and Disposal of Chemicals. To have waste removed from individual campus locations; a Hazardous Materials Pickup Request Form must first be submitted.

- http://www.purdue.edu/REM/hmm/hmm.htm

- Contact: Adam Krajicek, 49-63072; arkrajicek@physfac.purdue.edu

- **ALL CONTAINERS MUST BE KEPT CLOSED AND CLEARLY LABELED.**
Workplace Injuries

• All injuries must be reported, no matter how minor.

• Supervisor must complete the *First report of injury form* and submit to REM within 48 hours:
  http://www.purdue.edu/REM/home/forms/froi.doc

• See information here:
Cell Phones

- Add ICE after someone you would want to be contacted
  In Case of an Emergency

- 911 from a cell phone will connect to the county system (slower). Add 494-8221 as a Purdue police contact and tell them it is a 911 emergency
Nuclear Engineering Safety Committee

- Prof.: Hibiki – Co-chair
- Mr. Jenkins – Co-chair
- Prof. Harilal
- Prof. Taleyarkhan
- Mr. Miwa – A student member:
- College of Engineering Safety
  - Wayne Muench 4-9822
Use Common Sense
On and off the job
Plan ahead
Anticipate Potential Problems
Use “risk-informed” judgement
The End