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The ORS mission is to help faculty, staff, students, and visitors create safe workplaces, work safely, and achieve compliance.
ORS Executive Director

Michael B. Blayney, Ph.D.
Why Does NU need ORS?
OSHA Regional News Release

U.S. Department of Labor
Office of Public Affairs

Region 2 News Release: NY 111
Monday, January 25, 1999
Contact: Chester J. Fultz, (212) 337-2319

COLUMBIA UNIVERSITY CITED BY OSHA FOR ALLEGED WILLFUL AND OTHER SAFETY AND HEALTH VIOLATIONS: $77,500 IN PENALTIES PROPOSED

The U.S. Labor Department's Occupational Safety and Health Administration (OSHA) has cited Columbia University, College of Physicians and Surgeons, Health Sciences Division, at 168th Street in Manhattan, and proposed penalties of $77,500 against the university, for one alleged willful, eight alleged serious, and seven alleged other-than-serious violations of OSHA standards. The university has until February 12 to contest the citations.

According to OSHA area director Robert D. Kulick, the actions results from an inspection of the premises conducted on July 23, 1998, following complaints about employee exposure to formaldehyde.

"It is a serious matter when an institution such as a university fails to comply with OSHA standards by exposing its employees to a dangerous chemical such as formaldehyde without providing proper protections," Kulick said. "We have taken appropriate action to hold the university accountable for not ensuring that all of their employees are provided with a safe and healthful workplace."

OSHA alleges that the university willfully violated the laboratory standard by failing to carry out the provisions of a written chemical hygiene plan. The alleged willful violation carries a total proposed penalty of $55,000.

OSHA also cited the university for eight alleged serious violations of the formaldehyde standard, including:

- Developing a sampling strategy for determining employee exposure to formaldehyde.
- Providing and implementing an effective monitoring program for employees exposed to formaldehyde.
- Requiring the posting of formaldehyde exposure limits on the workplace.
EPA, MIT Reach Agreement over Violations

By Dana Levine

EXECUTIVE EDITOR

MIT agreed on Wednesday to pay $150,000 in fines to the Environmental Protection Agency and has announced a $405,000 series of environmental improvement programs.

These initiatives will include web-based safety education and collaboration with teachers from Cambridge public schools.

An EPA inspection in May 1998 showed that MIT laboratories violated several environmental regulations, including the Resource Conservation and Recovery Act’s hazardous waste requirements, the Clean Air Act, and the Clean Water Act. Although the violations did not cause any actual harm to the environment, the EPA levied several fines.

Jamie Lewis Keith, the managing director for environmental programs and risk management senior counsel, said that most of these violations involved the storage and disposal of hazardous chemicals and record keeping issues. “The regulations are very detailed about the labels that need to be on containers. ... If you look at the number of labs, 2,200, the number of violations wasn’t too great,” she said.
Deadly UCLA lab fire leaves haunting questions

March 01, 2009 | Kim Christensen

UCLA’s Molecular Sciences Building was mostly closed for the holidays on Dec. 29 as research assistant Sheri Sangji worked on an organic chemistry experiment.

Only three months into her job in the lab, the 23-year-old Pomona College graduate was using a plastic syringe to extract from a sealed container a small quantity of t-butyl lithium -- a chemical compound that ignites instantly when exposed to air.
Why does NU need ORS?

• Many granting agencies require safety compliance as one of their conditions for receiving funds

• Non-compliance (even by a few) puts us all at risk
What Are the ORS Programs?
ORS Programs

- Laboratory and Chemical Safety
- Biological Safety
- Radiation and Laser Safety
- Hazardous Waste and Spill Response
- Training
Laboratory and Chemical Safety

Markus Schaufele, CSP
Director-ORS Evanston
Chemical Hygiene Officer

- Responsible for the daily operations of ORS Evanston
- Manages Laboratory and Chemical Safety Committee (LCSC)
Laboratory and Chemical Safety

Programs:
- Laboratory Safety Reviews - Evanston
- Laboratory Safety and Chemical Hygiene Plan
- Lab design review
- General safe work practices
- Engineering controls
- Personal protective equipment
- Respiratory protection
- Safety equipment (showers, fire extinguishers)
- Hazardous processes
- Chemical Fume Hood Inspections
- Engineered nanoparticles
Laboratory and Chemical Safety

Regulating Agencies:
- Chicago/Evanston fire & life safety codes
- OSHA: General Industry Standards, plus:
  - Hazard Communication Standard,
  - Laboratory Standard,
  - PPE Standard,
  - Respiratory Protection Standard, and
  - Substance Specific Standards
Biological Safety

Andrea D. Hall, Ph.D
Director-ORS Chicago
Biological Safety Officer
Responsible Official

- Responsible for the daily operations of ORS Chicago
- Manages Institutional Biosafety Committee (IBC)
Biological Safety

Programs:
• Laboratory Safety Reviews - Chicago
• Recombinant DNA registration
• Human gene transfer
• Bloodborne pathogens
• Infectious agents
• Biohazardous waste
• BSL3 laboratories
• Select agents
• Biosecurity
Biological Safety

Regulating Agencies:
- Centers for Disease Control
- OSHA: Bloodborne Pathogens Standard
- NIH/Office of Biotechnology Activities
- Department of Transportation/FAA
Ionizing and Non-Ionizing Radiation Safety

Radiation Safety Officer
Laser Safety Officer

- Leads the NU Office for Research Safety – Health Physics Services team
- Manages the Radiation Safety Committee
- Manages the Laser Safety Committee
Ionizing and Non-Ionizing Radiation Safety

Program Areas:

Radiation Safety
- Training and Audits
- Radioactive material use authorization
- Radioactive material inventory, accountability, receiving/shipping
- Xray
- Irradiator Security

Laser Safety
- Training and Audits
- Laser use authorization
- Laser Inventory
Ionizing and Non-Ionizing Radiation Safety

Regulating Agencies:

- Illinois Emergency Management Agency (IEMA) -- Division of Nuclear Safety (DNS)
- Nuclear Regulatory Commission (NRC)
- Department of Transportation (DOT) -- Federal Aviation Administration (FAA)
- Food and Drug Administration (FDA) – Center for Devices and Radiological Health (CDRH)
Training Services

Steve Karlman
Manager, Research Safety Training

- Manages ORS online and classroom training
Training Services

Programs:

• Development, deployment, tracking and record keeping for hazard-specific training that meets regulatory requirements

• Orientations
Hazardous Materials Shipping

Nicholas Waddell, JD, CSP
Senior Laboratory Safety Specialist

- Manages hazardous material and dangerous goods shipping
Hazardous Materials Shipping

Regulating Agencies:
- US Department of Transportation
- International Air Transport Association
- US Department of State
- US Department of Commerce
- US Department of Treasury
Hazardous Waste Services

Hemang Rana
Clean Harbors Environmental Services
InSite Program Manager

• Manages Evanston and Chicago hazardous waste program
Hazardous Waste Services

Programs:
• Chemical waste
• Biological waste
• Spill response

http://www.research.northwestern.edu/ors/forms/purpleguide.pdf
Hazardous Waste Services

Regulating Agencies:
- EPA
- IEPA
- Metropolitan Water Reclamation District
- OSHA: Hazardous Waste Operations
How does ORS implement its safety programs?
Welcome to ISIS!

Please login with your University NetID to access the system.

If you are new to the University, or cannot access ISIS with your NetID, please contact ORS (Chicago campus phone, 312-503-8300, or Evanston campus phone, 847-491-5581) to be added to the system. Please report any problems with the system to ORS.

If you do not know your University NetID, it is available in the Directory.


University NetID:  
Password:  
Login  

Office for Research Safety (ORS)  
Chicago • 303 E. Chicago Avenue • Ward B106 W223 • Chicago, IL 60611 • Phone: 312-503-8300  

http://www.isis.northwestern.edu
ISIS

Online program developed by ORS and ORIS to help researchers easily comply with safety regulations.

Informs PIs, Cores, and Laboratory Workers about safety specific to their workplace:

- Regulations
- Engineering controls
- Safe work practices
- Personal protective equipment specific to their workplace
ISIS

Allows electronic submission, review, and approval of registrations and applications:

- Radioactive Materials License
- Recombinant DNA Registration
- Human Gene Transfer
- Laser Registration
- Select Agent Registration
- Radiation Worker Registration
- Laser Operator Registration
ISIS

Allows PIs, Cores, Safety Designates and Lab Workers to manage safety training:

- Identifies training requirements
- Lists available courses
- Provides links to enrollment
- Allows users to track
ISIS

Formalizes and documents updates:

• Annual reviews to licenses and registrations
• Laboratory Safety Reviews
• Adding or Removing Laboratories or Lab Workers
• Change of hazards
ISIS

Formalizes closing of laboratories

- PI, Safety Designate, or ORS can start lab closeout process in ISIS
- ORS program managers approve when the hazards have been removed
ISIS

Contains the process for chemical and radioactive waste pickup requests

• Any person in ISIS can complete a hazardous waste pickup request
• Biological waste is separate
ISIS

Non-compliance can result in:

- ORS director refusal to sign safety inquiries for grants
- Safety issues reported in department audits
- Significant risk for reputational harm
ISIS

Getting in:

• Department or PI contact ORS
• ORS adds PI or Core Facility to system
• PI can assign a Safety Designate
• NO Lab Worker (including Post-Docs) can access ISIS unless a PI or Safety Designate adds them to the lab
ISIS

PI or Core completes:

• Basic information
• Safety Evaluation Wizard
• Customized set of virtual forms and a safety profile
• Automated ORS & committee review processes
• PI and administrator reports
Committees

- Radiation Safety
- Laser Safety
- Institutional Biosafety Committee
- Laboratory and Chemical Safety Committee
Laboratory Safety Review

- After Laboratory Safety Profile is submitted in ISIS
- A comprehensive and supportive annual visit
- Coincides with ISIS annual documentation update
- Interactive workflow between laboratory safety specialists and PIs
- Frequency depends on Tier
  - Tier I: 6 months
  - Tier II: 12 months
  - Tier III: 18-24 months
- Radiation and LSRs are conducted separately
Safety and Lab Services from Other Departments
Risk Management

- Fire safety
- Emergency evacuation plans
- General occupational safety
- Ergonomics
- Insurance – workers compensation
Risk Management

- Workers comp and claims administration
- Occupational medical services:
  - Corporate Health at NM Physicians Group.
  - Occupational Medicine Evanston Glenbrook Associates (OMEGA) in Evanston.

http://www.northwestern.edu/risk/workers-compensation/
University Services

- Purchasing (radioactive materials, highly toxic compressed gases, and select agent toxins are restricted)
- Lab coat cleaning
- Compressed gases
- Dry ice, Lab alcohol, and liquid nitrogen
- Loading docks and deliveries
- Internal moves
- VWR (chemical waste containers, mercury thermometer exchange)
- Computer recycling
- Lab equipment recycling
University Police

- Personal safety – Call 456
- Security breaches and Threats – Call 456
- Fire, Explosion, Injury – call 911

Note: Calling from a University Phone ensures that the call is routed properly!
Who Does What?

See “Who Does What at Northwestern” to help determine which department can help you with your question.

http://www.research.northwestern.edu/ors/info/whodoeswhat.html
Visitors and Volunteers

Visit the Laboratory Visitor and Volunteer Training webpage for more info.

http://www.research.northwestern.edu/ors/training/visitor-volunteer.html
What Do I Do Now?

• Review ORS website
• Review the Essential Guide
• Acquire Department Administrator access to ISIS
• Review your department information in ISIS
ORS Office and Contact Information

Evanston: NG-71 Tech, phone 1-5581
Chicago: B-106 Ward, phone 3-8300
E-mail: researchsafety@northwestern.edu
Office for Research Safety

ESSENTIAL INFORMATION on LABORATORY SAFETY @ NORTHWESTERN UNIVERSITY

NEW Essential Information Guide Read More

http://www.research.northwestern.edu/ors
Questions?