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Web Interface

## 1 *Laboratory Management*

Annual Lab Inspections  
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Compliance

### 1 Lab Inspection Web Interface Now Online

Compliant Labs

1 Principal Investigators can now respond online with follow up activities regarding laboratory inspections. If an inspection report indicates items that need corrective action, those activities can now be submitted electronically using the EHS Assistant online software and web interface. Principle Investigators can view their inspection report, respond to each item that needs corrective action, and submit them to EHS for review. The responses are automatically emailed to the EHS staff member who performed the inspection. The new response system will assist PIs with efficiently managing the safety of their laboratories. Instructions for using the new EHS Assistant web interface can be found at <http://www.ehs.ohio-state.edu/docs/labsafe/web%20inspection%20instruct.pdf>

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### Annual Lab Inspections Indicate Increased Compliance

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Laboratories under the supervision of over 600 faculty or principal investigators were inspected for compliance with chemical and biological regulations and safe practices. A 78 item checklist was used to evaluate all the labs. Chemical safety checklist items showed statistically significant improvements ranging from a few percent to over 35% versus the previous year. On average, chemical related issues showed an 11% improvement over the prior year, with an 89% compliance rate. Although data for comparison of BioSafety issues were not available for the prior year, results from the current year indicated a 96% compliance rate with BioSafety level one labs and 81% compliance rate with BioSafety level two (BSL2) labs. The use of online laboratory safety training programs showed an increase of 23% from 2007 to 2008.

“Faculty, principal investigators, graduate students and research staff are to be commended for their efforts to work safely,” says Tim Govenor, Director of Research Safety.

### 100% Compliant Lab Inspections

The Complaint list is composed of researchers at the university whose laboratories were 100% compliant during the annual safety inspection. These inspections focused on appropriate training for personnel, proper facilities, procedures, and protocols which minimize risks within a research setting. The Research Safety Team would like to say “Thank you” this quarter to the following PIs and lab personnel for choosing to work safely.



Amal Amer, Charles Brooks, Douglas Danforth , Mark Drew, Richard Fishel, John Gunn, Jesse Kwiek, Mike Lairmore, Brad McGwire, Judith Radin, Amanda Toland, Joanne Turner, Larry Schlesinger, Dan Wozniak

### Lab Standard Classroom Training

EHS will offer the laboratory standard schedule from 2-4pm on Thursdays as follows:

- October 8th
- October 15th
- October 22nd
- October 29th
- November 5th

To register for the course contact Environmental Health & Safety at 292-1284 or contact our Training Coordinator, Gary Isaacs at [Isaacs.30@osu.edu](mailto:Isaacs.30@osu.edu).



## Environmental Health & Safety

### Chemical Facility Anti-Terrorism Standards



The U.S. Department of Homeland Security (DHS) Chemical Facility Anti-Terrorism Standards (CFATS) are intended to prevent the intentional misuse of certain chemicals by sabotage, theft, diversion or direct attack. DHS has the authority to inspect facilities in an effort to enforce compliance with CFATS. DHS can impose civil penalties up to \$25,000 per day and has the authority to shut down facilities that fail to comply with the regulations.

Appendix A of the CFATS lists chemicals of interest (COI) and their corresponding screening threshold quantities. Facilities that possess a COI at or above the screening threshold quantity must report the information to DHS within 60 calendar days of coming into possession of the COI. This report is known as a Top Screen. The OSU Office of Environmental Health and Safety (EHS) will submit a Top-Screen to DHS for each facility at OSU that has a COI above the screening threshold quantity in accordance with CFATS. EHS will submit information to DHS based upon the chemical inventories in the EHS Assistant Web Based Chemical Inventory System. For this reason, it is important that all OSU faculty and staff submit and maintain up-to-date chemical inventories in the EHS Assistant Web Based Chemical Inventory System.

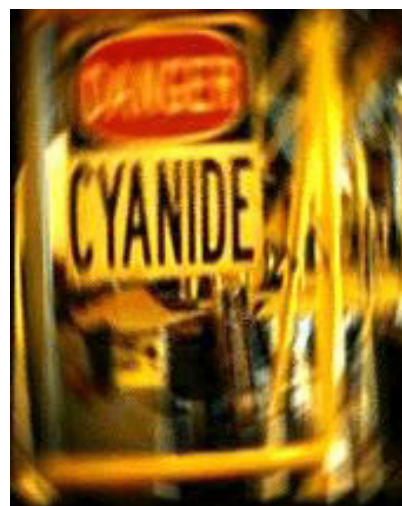
Using the Top-Screen, DHS makes a preliminary determination of whether a facility presents a high level of security risk. If DHS determines that a facility presents a high level of security risk, EHS will complete the required Security Vulnerability Assessment (SVA) and submit it to DHS. DHS will use the SVA to perform a final threat analysis to determine the final level of risk of the specific facility. If DHS determines an OSU facility presents a high level of security risk during the final threat analysis, EHS will work with the facility to develop and implement an appropriate Site Security Plan based upon DHS's Risk Based Performance Standards.

EHS will facilitate CFATS compliance at the university. If you need to set up an EHS Assistant user account, please contact Mitch Baker at (614) 292-1284. Questions about CFATS compliance should be directed to John Sharpe at (614) 292-0619 or [sharpe.56@osu.edu](mailto:sharpe.56@osu.edu).

### Cyanide Safety

Cyanides have a number of chemical, physical and toxicological properties that make handling these materials particularly hazardous. All forms, including solutions or vapors can cause rapid fatal poisoning. The hazards which are associated with Cyanides require particular personal protective equipment, and handling and storage measures. Additionally, if your laboratory is using cyanides, specific Standard Operating Procedures must be developed and employees must be trained on cyanide use and emergency procedures.

A cyanide training course will be available on the EHS website in the near future. If you would like more information on cyanides please contact your safety representative at the Office of Environmental Health and Safety.





## Environmental Health & Safety

### Electrical Safety in the Laboratory - Power Strip Use

Power strips are commonly used multi-receptacle devices designed for indoor use only and originally intended to supply power for computers, auxiliary computer hardware and other low amperage equipment. In addition, many power strips are designed to provide a degree of protection from surges in voltage and filtering for electrical noise.

OSHA, NFPA 70 and NEC (National Electrical Code) have codes which state: all listed or labeled equipment shall be installed and used in accordance with instructions. This includes Underwriters Laboratories Inc.® and the manufacturers' instructions. The same agencies and references apply to flexible cord standards and maximum load limitations.

Always read the instructions and become familiar with the limitations. Follow these instructions from Underwriters Laboratories Inc.®:

- Connect power strips directly to a permanently installed receptacle. They are not intended to be series connected to other power strips or extension cords.
- Power strips are not to be used outdoors or on construction sites.
- Power strips are not to be permanently secured to building structures, tables, benches or similar structures. They are not a substitute for fixed wiring.
- The cords of power strips are not to be routed through walls, windows, ceilings, floors or similar openings.

In addition, do not exceed maximum cord and plug load limits. According to the NEC and NFPA, the maximum load should not exceed 80% of the manufacturer's rating. This means the maximum load on a 15 amp power strip is 12 amps. Examples of high amperage equipment that should not be plugged into power strips include: refrigerators, freezers, coffee pots, space heaters and microwave ovens.

Other safety tips include not using damaged power strips and avoid water or wet locations.

#### References:


OSHA National Training Institute Monograph by John Grzywacz, "Relocatable Power Taps".  
Underwriters Laboratory Inc.® Directory, "General Information for Electrical Equipment".

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### Laboratory Footwear

Warm weather and summer often bring a more relaxed atmosphere to campus. Attitudes are less serious, timing less hurried and laboratory safety is sometimes an afterthought. Although the weather is warm, it is important to remember that the proper personal protective equipment (PPE) should be worn in research and instructional laboratories.

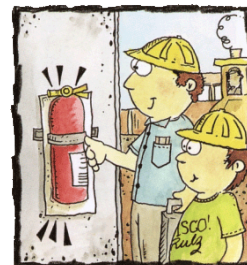
With regards to footwear, only closed toe shoes are appropriate. Clogs, crocs, sandals, perforated or cloth shoes do not provide adequate protection against common laboratory hazards. Some of the dangers include chemical spills, falling objects, mechanical and electrical hazards. Some laboratories may also require the use of steel toed shoes to provide additional protection. See sections 5.3 and 13.3 of your Chemical Hygiene Plan (CHP) which discusses policies and appropriate footwear for chemical laboratories.



## Environmental Health & Safety

### Fire Extinguisher Installation Practices — a Note from the Fire Systems Shop

The Fire Systems Shop is funded to inspect, maintain and recharge, in compliance with NFPA regulations, existing fire extinguishers. These extinguishers are installed and maintained for general building fire protection coverage. The addition of fire extinguishers requested by departments for computer rooms, research labs and research work spaces will be installed on a billable basis.



The charge for additional fire extinguishers includes purchase and installation costs. All cost for inspection, maintenance and servicing of new extinguishers become the Fire Systems Shop responsibility after installation. It is preferred that the installation of additional fire extinguishers be processed through the Fire System Shop. This is to maintain a standard of quality and ensure the new fire extinguisher locations are added to building inventory lists and monthly preventive maintenance work requests. Departments electing to provide their own fire extinguishers will be responsible for their own inspections, maintenance, servicing and replacement.

Fire extinguisher installation requests can be initiated by contacting Service 2 Facilities (292-6158). They will have a billable work request issued to the Fire Systems Shop. The Fire System Shop will assist with providing information on extinguisher types and their application, and pricing information before work is initiated. The Fire Systems Shop can be contacted at 247-1539 or 292-3004.

### New Laser Safety Program



Over the next year EHS will begin implementing a laser safety program for the safe use of lasers on campus. Through previous research safety inspections EHS compiled a list of labs having lasers. One of the first steps in establishing the program will be visiting these labs to gather basic information such as laser types, class, uses, existing safety practices, etc. Emphasis will be on labs containing class three and four lasers. Information including resources and training for laser safety will be added to the EHS website as the program evolves. The goal of the program will be to serve as a safety resource for PIs and lab personnel to help mitigate the risk of laser accidents. As with all areas of lab safety, accidents can occur when personnel become comfortable with practices that may be unsafe. A small amount of due diligence can go a long way in preventing accidents. For questions and information please contact the Laser Safety Officer, William White at 292-0263 or via e-mail, white.79@osu.edu.

### Radiation Safety Personnel Changes

William “Buddy” White was recently promoted to medical health physicist. Buddy’s new duties are developing and implementing a laser safety program and serving as the medical health physicist involving radiation in human research.

As a result of Buddy’s promotion Environmental Health and Safety recently hired Jack Kidwell. Jack’s primary duties are the laboratory surveillance program and the personnel monitoring program. Prior to OSU Jack worked at the University of Toledo (formerly the Medical College of Ohio) as a radiation safety specialist for 12 years.

Jeremiah Sauber began his duties as Assistant University Radiation Safety Officer earlier this month. Prior to joining OSU, Jeremiah worked at Georgia Tech for 12 years. The last 4 years Jeremiah was Associate Radiation Safety Officer. Jeremiah’s primary duties will be the laboratory surveillance program, radioactive waste program, instrumentation, decommissioning, sealed source program and transportation of radioactive materials.