REM NEWS

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Are YOU Indemnified Yet??

Help prevent regulatory fines to your department and the University!

The Integrated Safety Plan (ISP) is a plan to change the culture of Environmental Health and Safety (EHS) at Purdue University. It is a network of safety committees, in compliance with Executive Memorandum #C-36, that enables communication about regulatory requirements and good (EHS) management practices across the university. It is a program that introduces hands-on evaluations of the hazards of the workplace through training and self-audits. Measurements of success include the number of new or reactivated safety committees, surveys of customers and focus groups, "clean" audits from the regulatory agencies, and visible support by all levels of administration of the university. Once the ISP has been implemented in an area, the University OSHA officer will grant indemnification from regulatory fines for your area!

The goals of the ISP include:

- regulatory compliance
- developing safety committees to raise awareness of workplace hazards
- making environmental health and safety a way of doing business.
- providing departments with indemnification from regulatory fines

How do we get indemnified???

- The ISP "toolbox" includes a self-audit form for each lab or shop area, and an annual audit performed by REM, which is called a "performance criteria evaluation". Members of the departmental safety committee, or other department-level staff, complete the self-audit form on a quarterly or annual basis. REM provides an evaluation annually, tracking improvements to the environmental health and safety programs in a department. The first audit is considered to be the baseline audit; REM will look for improvements in the years following.

All Department Heads and Deans are required to participate in planning and recognizing EHS issues in their areas, and to lead by example by implementing the Integrated Safety Plan.

These departments and schools are indemnified!

Food Science
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Chemistry
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Ag Communication
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Nursing
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Purdue Student Health Center
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Chemical Engineering
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IPFW Physical Plant
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PNC Physical Plant
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PUC Physical Plant
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REM
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Agronomy
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School of Veterinary Medicine

Safety is important to everyone. Protect yourself! Wear your Personal Protective Equipment!

An Update For Aqueous Waste and Used Oil Generators

By Matt Buckley

As generators of hazardous waste, we all know how important it is to identify each constituent in our waste. Unidentified components of waste mixtures can have significant impacts on how we at Purdue manage our waste in both financial and environmental terms.

As reported in the December 2000 REM Newsletter, annual waste sampling indicated pyridine in our aqueous inorganic waste. The level of pyridine found precludes all inorganic aqueous waste generated on campus from the environmentally friendly wastewater treatment option. As a result, we have had to dispose of more than 1000 gallons of aqueous waste through the more costly and less appealing hazardous waste incineration option. The good news! We have identified and eliminated the potential sources of the pyridine from entering the waste-stream. Furthermore, through additional sampling, we have now returned the disposal of this waste-stream back to wastewater treatment.

Annual sampling of used oil indicated benzene and tetrachloroethylene at levels above the regulatory limits. We would expect to find some volatile organic content in waste oil due to its use in internal combustion engines, and EPA regulations allow for this. However, our concern is fuel and/or degreasers are being co-mingled with waste oil, making it hazardous waste and precluding used oil from the more responsible recycling option. Through careful sampling and close interaction with the generators of used oil, REM has identified and eliminated the source of the Benzene and Tetrachloroethylene, and has returned used oil to the recycling option. Chlorinated degreasers are problematic with waste management, bad for health and should be substituted with non-chlorinated degreasers. For more information or help identifying safer degreasing products, contact Brian McDonald at bnmcdonald@purdue.edu or 49- 63712.

Through constructive partnerships and good stewardship, REM is dedicated to providing safe, compliant, and efficient management of hazardous waste. We depend on your knowledge, as generators, to clearly and completely identify all components of your wastes, no matter how small or incidental. If you have questions or need assistance, give us a call at 49-40121.

Should You Be Using the OSHA Bloodborne Pathogen Program?

By Bob Golden

The OSHA Bloodborne Pathogen Program is designed to insure that employees who have occupational exposure to human blood or blood products be given annual awareness training and have the opportunity for receiving Hepatitis B vaccinations. Blood products include body fluids, unfixed human tissue, human cell lines, urine and fecal material, vomit material, and any other body fluid that may be contaminated with human blood. Training covers specific information found in the Purdue Bloodborne Pathogen manual, i.e., signs and symptom of HIV and Hepatitis B + C, disease prevalence, precautions, decontamination and waste disposal, vaccinations, and exposure procedures. The Purdue Bloodborne Pathogen manual and the Purdue Biological Safety manual can be found at this link: http://www.adpc.purdue.edu/PhysFac/rem/home/files/guide.htm

If you have any questions, contact Robert Golden by email at rgolden@purdue.edu or by phone at 49-41496.

Open Chemical Containers

During recent laboratory inspections we have noted open chemical waste containers. These containers are generally 2 to 4 liter glass jugs that are either uncapped or have a funnel positioned in the top. Please remember waste containers need to be kept closed except when adding waste to the container. Open-waste containers could result in substantial EPA fines. If the REM Integrated Safety Program has not indemnified your area, your department or school will be responsible for the resulting regulatory fine. Remember; cap all chemical waste containers. You may contact Robert Golden at rgolden@purdue or 49-41496 to find out more about indemnification and the Integrated Safety Program.

REM Welcomes Robin Mills Ridgway

Robin Mills Ridgway, a recent Purdue University Doctorate of Environmental Engineering, has joined the Physical Facilities REM team. In Robin's role as the Environmental Regulatory Consultant for the University, she's responsible for compliance issues such as clean air, clean water and environmental permits. This unique position will have dual reporting to the Physical Facilities Utilities Department and to REM.

Robin comes to us with a wealth of experience as an Indiana certified Professional Engineer in Environmental Engineering. She managed a Xerox groundwater remediation upgrade project; coordinated pollution prevention projects for Indiana manufactures; conducted groundwater research and development at the Savannah River DOE facility for the Oak Ridge Institute for Science and Education; completed reports and analysis for Purdue Water Works; and assisted in preparing Title V air permits for the Indiana Pollution Prevention Institute.

Robin Mills Ridgway
Enviornmental Regulatory Consultant

Robin's office is located in the REM office in the Civil Engineering Building. She may be contacted by email at ridgway@purdue.edu or by phone at 49-66405. Welcome to the team, Robin!

Planning To Move Your Laboratory Equipment?

By Rachael DeRudder

REM schedules the annual certification and maintenance of the many biological safety cabinets (BSCs) and laminar flow clean benches (LFCBs) in the laboratories on Purdue's Calumet and West Lafayette campuses. These units are certified by NSF-accredited technicians employed by off-campus vendors.

To request service or report a problem, call Rachael DeRudder at 49-47968. Before making the call, it is helpful to have the following information ready:

- Purdue Inventory ID# of the unit needing serviced
- Building and room number where the unit is located
- Name and phone number of a contact person for the unit
- Nature of the problem that resulted in the service call

If you will be moving your BSC or LFCB in the future, please notify REM at 49-47968. All bio-safety cabinets must be decontaminated before moving, and re-certified before startup in the new location. In addition, REM tracks the location of these units in order to have accurate information for the NSF-accredited technicians that REM hires to do the annual certifications.

Another consideration when moving these units is the coordination of the move with the certification schedule. When a unit has been moved and before it can be used in its new location, it must be certified that it is operating properly (per NSF standards). If the move is anticipated to be near the time of the annual certification, it might be possible to move forward or postpone the certification to coincide with the post-relocation certification. This translates into cost savings for Purdue. Once a unit has been moved and certified, it SHOULD remain in that EXACT location, otherwise if the unit is moved even 2 feet, it should be certified again. Further questions about BSCs and LFCBs should be directed to REM by calling 49-47968.

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What's Happening to those Old Computer Monitors?

By Brian McDonald

Computer monitors contain several recyclable materials. All computer components have changed over the years. Today's PC is typically comprised of 40 percent steel, 40 percent plastic, 10 percent aluminum and 10 percent other metals, including copper, gold, silver, cadmium and platinum. The computer monitor additionally contains glass and lead.

The Cathode Ray Tube or CRT is the viewing portion of a computer monitor or television. The CRT contains hazardous materials, primarily lead and may also include phosphorus, cadmium, barium, and mercury. It is important that these materials are recycled or properly disposed. As a product, these hazardous materials are safely sealed inside. However, when monitors are sent to the landfill, it is typically compacted and the CRT is likely to break, releasing the hazardous materials. Regulatory agencies, federal and statewide, are now monitoring the disposal of CRTs and other computer equipment. The charges to recycle are minimal when compared to the potential environmental cleanups of improperly disposed monitors.

For unwanted computer equipment on campus, the University sells useable equipment, the rest goes to a Michigan company who reuses, refurbishes or recycles all the constituents in the equipment. If you have unwanted or obsolete computers or electronics, please fill out a Form 9 to initiate the reuse/recycling program. The items will be picked up and processed through University Warehouses. All faculty and staff are encouraged to contribute to the reuse/recycling efforts of the University and, therefore, promote waste minimization and global sustainability.

If you have any questions or concerns, please contact University Warehouses at 742-4414 or Brian McDonald, EPS-REM, at 49-63712.

Are Your Shoes Keeping You Safe?

We must be sure we are wearing the proper shoes for the work we are performing. If you work in a laboratory and/or handle chemicals, you should be wearing closed-toe leather shoes. Many times we often overlook chemically contaminated shoes as a dermal exposure route of entry. Lab workers have been known to spill small quantities of chemicals on their shoes resulting in severe tissue damage to their feet or even systemic poisoning. This may be best illustrated with mercury spills. Because it is not common to frequently inspect or clean footwear, and leather has a high affinity for mercury, long-term exposure can result from mercury spills to the shoes. In a mercury exposure case involving foot-ware contamination to a graduate student, chelation therapy was required to remove mercury from the the student's blood.

If you suspect that either your clothing or shoes are contaminated with chemicals, decontaminate if practical or dispose of the clothing and shoes. If disposing, the clothing or footwear may be considered hazardous waste, so consult REM's Hazardous Waste Section for proper disposal procedures at 40121.

Those who work in laboratories and/or handle chemicals, should wear closed-toe leather shoes.

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