Controlled Substance Update

by Robert Golden and Rachael DeRudder

Radiological and Environmental Management plays an important role in the regulation of controlled substances at Purdue. REM's Drug Enforcement Administration (DEA) Controlled Substances webpage is located at http://www.purdue.edu/rem/eh/DEA.htm. This site provides information regarding the operation of the University Controlled Substance program.

Research that uses controlled substances requires both State and Federal licensing. The DEA regional office in Merrillville has jurisdiction over northern Indiana, including Purdue University. To assist the regional director of the DEA, REM reviews controlled substance registration applications before final submission to the DEA. This procedural change enables REM to identify common mistakes in applications that would normally slow down the license approval process.

REM suggests the following tips to ensure your registration process is as trouble-free as possible:

1. Make certain the information is legible. We suggest completing the DEA registration online and printing the submission copy. REM’s DEA Controlled Substances webpage contains a link to the DEA registration site.

2. Obtain the Indiana Controlled Substance Registration (CSR) first. Remind the Indiana State Board of Pharmacy inspector to include the registrant’s name on the CSR. This inspector will make a site visit to the registrant’s lab before issuing the State CSR.

3. List the proper controlled substance schedule for the drugs to be used. In addition, list the proper drug codes. The codes must coincide with the schedules requested.

CAUTION: The Indiana controlled substance schedules are the reverse of the Federal schedules. The drug schedule license from the Federal application must correspond to the drug schedule in the Indiana license (e.g., if the Indiana license indicates Schedule 2N, then request Schedule 2 license on the Federal application).

4. When completing the DEA registration form, make sure the name and address are identical to those on the Indiana State license.

5. Schedule 1 Controlled Substances registrations require specific application instructions: Contact Robert Golden at 41496 for instructions.

6. Complete Section 10 "Fee Exemption" on the DEA 225 form. Exemption from payment of application fee is limited to federal, state or local government hospitals, institutions and officials. The applicant’s supervisor (i.e., Department Head) or agency officer must certify exempt status. Be sure to provide the signature, authority title, and telephone number of the certifying official (other than the applicant).

Note: A Practitioner's license is not fee exempt.

7. Send DEA application forms to Robert Golden at REM/CIVL or by fax (49-62572). REM will review the DEA 225 form and provide feedback. Then the registrant may send the application form by registered mail to:

Drug Enforcement Administration
U.S. Department of Justice
Central Station
P.O. Box 28083
Washington, D.C. 20038-8083

Note: Every package sent to the DEA Washington location, especially bulky application packets, is sub-
Purdue University is committed to preserving a balance between protecting the health of people and the environment, while accommodating increasingly sophisticated and productive research operations. The Chemical Management Committee (CMC) requires each principal investigator (PI) that generates hazardous waste to certify their waste minimization efforts. Waste minimization is any action that reduces the amount and/or toxicity of chemical wastes.

In addition to the individual efforts of each PI and their research staff and students, Radiological and Environmental Management actively pursues waste minimization for the University. Our efforts, so far, predominantly focus on waste generated from support operations as shown in the table below.

REM challenges the research community to proactively seek new and innovative ways to reduce the quantity or toxicity of the waste they generate. The 3-R's represent the hierarchy of waste minimization. Listed in order of importance, Reduce, Reuse, and Recycle to practice waste minimization.

Brian McDonald is REM's Environmental Protection Specialist and responsible for overseeing the University's hazardous waste minimization program. Purdue submits to IDEM a biennial report detailing Purdue's waste activity including waste minimization. Contact Brian at 63712 so REM may document your waste minimization efforts, and please share your fantastic ideas with other researchers.

<table>
<thead>
<tr>
<th>Waste Stream</th>
<th>Reduction Effort</th>
<th>Quantity</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shop Rags</td>
<td>Laundered</td>
<td>147,000</td>
<td>count</td>
</tr>
<tr>
<td>Fluorescent Bulbs</td>
<td>Mercury reclamation</td>
<td>43,424</td>
<td>count</td>
</tr>
<tr>
<td>Used Oil</td>
<td>Re-refined</td>
<td>4,105</td>
<td>gallons</td>
</tr>
<tr>
<td>Computer Monitors</td>
<td>Lead glass reclamation</td>
<td>1974</td>
<td>count</td>
</tr>
<tr>
<td>Parts Washer Solvent</td>
<td>Reuse in roofing products</td>
<td>600</td>
<td>gallons</td>
</tr>
<tr>
<td>Elemental Mercury</td>
<td>Reclaimed for reuse</td>
<td>223</td>
<td>pounds</td>
</tr>
<tr>
<td>Mercury Thermometers</td>
<td>Replaced with non-mercury</td>
<td>199</td>
<td>count</td>
</tr>
<tr>
<td>Nickel-Cadmium Batteries</td>
<td>Recycled</td>
<td>255</td>
<td>pounds</td>
</tr>
<tr>
<td>Lithium-ion Batteries</td>
<td>Recycled</td>
<td>115</td>
<td>pounds</td>
</tr>
<tr>
<td>Lead Acid Batteries</td>
<td>Recycled</td>
<td>450</td>
<td>count</td>
</tr>
<tr>
<td>Waste Containers</td>
<td>Recycled as scrap metal</td>
<td>3000</td>
<td>pounds</td>
</tr>
</tbody>
</table>

Controlled Substance Update

Continued from page 1

ject to a hazard analysis process. This is a Department of Justice security measure and can add six weeks to the approval process. Send only the printed application. Do not include other required information (see section 8 below).

8. Once the application request has been entered into the DEA database, an agent from the Merrillville Regional DEA Office will contact the applicant and request the additional required documentation. This will include:
   - A copy of the Indiana CSR
   - A Controlled Substance Authorized User Signature List, which should list all staff who will have access to controlled substances
   - A copy of the registrant’s research protocol and/or a completed DEA research protocol information sheet
   - The curriculum vitae of the registrant
   - A narrative of the security protocol and inventory methodology for the controlled substances.

9. Send all forms and documentation by registered mail. Maintain copies to file.

Please direct any questions concerning controlled substances to Robert Golden (rwgolden@purdue.edu or 41496).
Hazardous Waste Disposal

by Adam Krajicek

Purdue University is a large quantity generator of hazardous waste. This is a designation given by the Environmental Protection Agency to any location generating more than 2,000 pounds of hazardous waste each month. Purdue generates 10,000 to over 20,000 pounds per month.

All hazardous waste generated on campus is picked up by REM personnel and transported to Purdue's treatment, storage and disposal facility. This waste is consolidated into 55-gallon drums based on physical and chemical characteristics and shipped off site to hazardous waste disposal facilities. The waste is then recycled, used for its fuel value in a manufacturing process, treated at a wastewater treatment plant, incinerated, or placed into a landfill.

The Hazardous Materials Management Section carefully selects the best disposal option for each waste stream with the highest priority given to environmental stewardship.

The following table is a three year look at REM hazardous waste pickup data, as well as the volume of hazardous waste generated at Purdue and the disposal methods for that waste.

<table>
<thead>
<tr>
<th>Calendar Year</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazardous Waste Processed (lbs.)</td>
<td>141,163</td>
<td>169,494</td>
<td>146,331</td>
</tr>
<tr>
<td>· Reuse for fuel value</td>
<td>56%</td>
<td>55%</td>
<td>62%</td>
</tr>
<tr>
<td>· Incineration</td>
<td>26%</td>
<td>23%</td>
<td>20%</td>
</tr>
<tr>
<td>· Wastewater treatment</td>
<td>14%</td>
<td>14%</td>
<td>15%</td>
</tr>
<tr>
<td>· Recycle</td>
<td>2%</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>· Landfill</td>
<td>2%</td>
<td>6%</td>
<td>1%</td>
</tr>
<tr>
<td>Number of Hazardous Waste Pickups</td>
<td>2,159</td>
<td>2,388</td>
<td>2,325</td>
</tr>
<tr>
<td>Number of Items Picked Up</td>
<td>22,370</td>
<td>20,588</td>
<td>25,648</td>
</tr>
<tr>
<td>Average Pickup Time (days) *</td>
<td>3.1</td>
<td>2.5</td>
<td>1.5</td>
</tr>
</tbody>
</table>

* Represents the average number of days it takes for REM to pick up waste once a request is submitted by the campus waste generator.

Emergency Preparedness Tip: Using 911

Call 911 immediately anytime there is a fire. At the Purdue West Lafayette Campus, Purdue Police Dispatch receives all 911 calls dialed from any campus phone. Purdue Dispatch does not receive 911 calls from cell phones. For the quickest response when calling to report an emergency from a cell phone, call Purdue Dispatch by dialing 494-8221. This is a good time to program the number into your cell phone so you have it available in an emergency.

When calling to report a fire or any other emergency, be prepared to provide as much information as possible:

- Location: building and room number or orientation (e.g. south west corner near dumpster)
- Your name and a phone number where you may be reached
- Nature of emergency

As a final and important note, anytime there is a fire call 911 regardless of whether or not it seems to you:

- The fire is already out
- There is no danger
- There is no need to call
- It would be embarrassing to call
- It would be inconvenient for the Fire Department to respond

Please help our Fire Department. They are required to inspect, document and report every fire occurrence on campus. They do this to better ensure your safety and protect our facilities.
Battery Recycling
by Brian McDonald

Batteries are in countless devices such as cordless power tools, laptop computers, cellular and cordless telephones, digital cameras, laboratory equipment, and many other powered-devices on campus. Purdue recycles the following types of batteries: Nickel Cadmium (Ni-Cad), Nickel Metal Hydride (Ni-MH), Lithium-ion, Lead acid, and Mercury.

When broken, these batteries can release heavy metals that damage the environment. Solid waste rules classify used batteries as hazardous waste due to their heavy metal content. However, Purdue University elects to manage batteries as Universal Waste. The Universal Waste designation for common waste streams, such as batteries, fluorescent bulbs, and mercury containing devices, conditionally reduces some of the hazardous waste requirements.

An important condition of the Universal Waste Rule is that waste must be managed in a manner that promotes pollution prevention and waste minimization by encouraging recycling, instead of less desirable methods of disposal such as placing the waste in a landfill or incineration. Purdue collects spent batteries and sends them off-site to a certified battery recycler.

Follow these steps to manage your old batteries:
- Submit a Hazardous Waste Pickup Request Form to REM.
- Batteries must be intact.
- Place leaking or damaged batteries in a suitable closed container and label the container (e.g. "Leaking lead acid battery").
- Place alkaline batteries in the trash. Our battery recycler will accept alkaline batteries at $1 per pound. However, they will just throw them in the trash too!
- Call 911 for emergencies involving batteries, such as fires, spills and injuries.

Call Brian McDonald of REM at 63712 with any questions.

REM NEWS
Purdue University
Radiological and Environmental Management
Civil Engineering Building, Room B173
550 Stadium Mall Drive
West Lafayette, IN 47907-2051