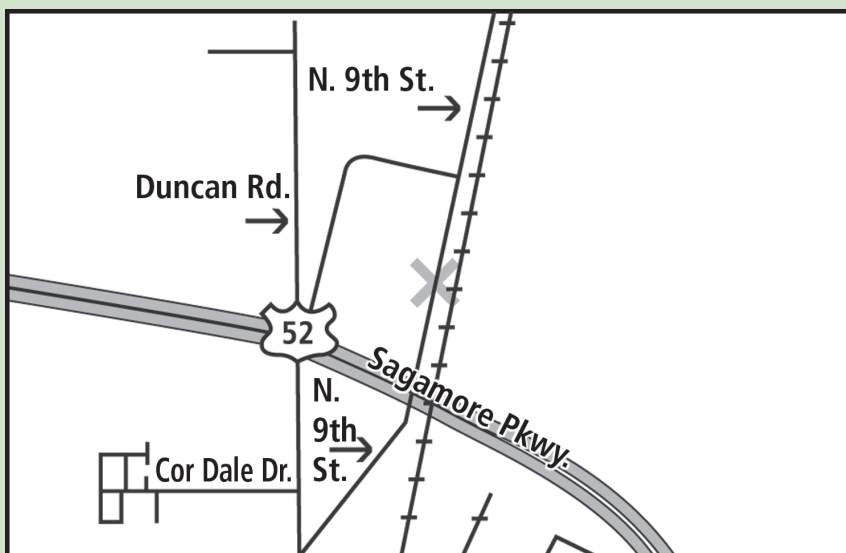


## 2004 Household Hazardous Waste Collection Day Cancelled

By Dan Miller

The annual Household Hazardous Waste collection has been a joint effort between Purdue University and the Wildcat Creek Waste District (WCWD). We provide some of the disposal, all the labor, materials and expertise necessary to collect such a massive amount of waste in one day, (21,000 pounds in 2003) while the WCWD provides for the remainder of the disposal. The purpose of this program was to promote the WCWD and engage the community in

responsible hazardous waste management. The WCWD has decided not to co-sponsor the collection this year. REM has received numerous inquiries about this year's collection; unfortunately, Physical Facilities cannot sponsor the event alone. To dispose of your household hazardous waste, call the WCWD at 423-2858 to schedule an appointment for a Monday delivery. They are located at 2780 N. 9<sup>th</sup> St. next to the recycling center. (See map below.)



**Wildcat Creek  
Solid Waste District**

## Why Is It Important REM Approve Radioactive Materials?

By Sharon Rudolph

For obvious reasons, radioactive material is a restricted commodity. Users must go through Radiation Safety training and the project approval process before they may begin ordering and using radioactivity. When an order is placed, REM must approve it in order for us to maintain an inventory of all isotopes on campus as is required by the NRC. This also enables us to make sure an order does not violate the limits of the individual projects.

In order to comply with purchasing department requirements, we are to use Ariba for ordering almost everything. This includes radioactive materials. In addition, to maintain compliance with DOT and NRC regulations, all packages containing radioactive material must be shipped to REM at CIVL B203 to go through the required check-in process. (Please enter the "Ship to" as CIVL and the "Deliver to" as Sharon Rudolph, REM, Civil B203.)

We may be added anywhere along the approval path, but whenever you order isotopes, you must add REM as an approver. The easiest way is to use the Commodity Code "Radioimmunoassay Isotopes". This will automatically include REM as an approver.

Please continue to use the R-1 form to place an order. This will ensure the person actually entering it into Ariba knows it is an isotope order. It will also

# Emergency and Spill Response Procedures

By Brian McDonald

Plan in advance for an emergency. What are the possible emergencies, which could occur during your work, e.g., fire, spill, or chemical exposure? Is it safe for you to be working alone? An emergency may be defined as being immediately dangerous to life and health, involves a large area, major injury to personnel, is a threat to personnel or the public, or hazardous material is released into the sewer or the environment (e.g. soil or body of water). What supplies and equipment should you maintain in your area to assist you or emergency personnel in the event of an emergency, e.g., eyewash and safety shower, spill control materials, personnel protective clothing? Small spills or leaks which do not expose personnel or the environment may be cleaned up with appropriate supplies (e.g. spill kit).

If you work with radioactive material, infectious agents, or hazardous chemicals, then it is recommended you develop emergency procedures for your area. Some common incidents may include spills and releases of

hazardous materials, exposure to hazardous materials, or incidents involving fire or explosion. Your procedures for emergency response should be simple and universal. REM recommends the minimum of evacuation and calling 911. Purdue Police receive all 911 calls from campus, 24 hours a day and will dispatch the appropriate response.

Guidelines have been established in the University's "Chemical Hygiene Plan and Hazardous Materials Safety Manual" to assist you with developing an emergency procedure for your area. Stocking your area with a spill kit is also a good idea. A simple but useful spill kit will include a 5-gallon bucket with screw top lid, absorbent pads, heavy weight garbage bag, disposable gloves, and liquid dish soap for cleanup. All of the spill control materials may be stored in the bucket. Keep this kit in the area but away from the hazardous materials it is intended to control.

Remember, initial assessment requires knowledge of the hazards and recognition of when additional assistance is necessary. You may

*The **Chemical Hygiene Plan and Hazardous Materials Safety Manual** is available to assist you with developing an emergency procedure for your area.*

*Please visit this web site for more details:  
<http://www.adpc.purdue.edu/PhysFac/rem/home/files/guide.htm>*

**Know the universal emergency procedures:**

- Evacuate the area
- Call 911

request outside help when any situation requires special training, procedures, or equipment that is beyond the abilities of the personnel present. Know the universal emergency procedures, evacuate the area, and call 911.

## REM Approves Radioactive Materials

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assist in getting all the required information correctly entered into Ariba. If there is not a specific place in Ariba for a piece of information, it may be included in a comment field to REM. We now have the R-1 form on our web site that you can save to your computer, fill out, and email to your Ariba entry person. That R-1 should then be attached to the Ariba order for REM to print out when approving the order. We will then make a copy for you with the assay information when your order is delivered. The R-1 form may be found by clicking the "REM Forms" button on the REM Home Page (<http://www.purdue.edu/rem>) and scrolling down to the "Radiation Safety" section.



It can be found directly at the following address <http://www.adpc.purdue.edu/PhysFac/rem/home/files/forms.htm>.

Ariba orders will be checked by REM each day at 2 PM just as R-1s have been. So please continue to get your

isotope orders in before 2 PM in order for REM to approve them the same day. Please be aware, once an Ariba order is approved by REM, it may still need approval from your department's Fiscal Approver before it will be faxed to the vendor. Since each vendor has its own cut-off time for shipping, there is no guarantee an order placed today will arrive at Purdue the next day. Please plan accordingly.

If you have any questions about whether or not an order is considered radioactive, or if you are not sure how to include some of the required information, please call Sharon at 47969.

# Annual REM Eyewash/Safety Shower Inspections Are Underway

By Don Campbell

A new 2-person eyewash crew joined REM for the summer. Mark Needham and Harry Strong, both with Building Services, have begun the annual inspection and repair of campus and farm-located eyewashes and safety showers, which together total more than 1480 units. That number is not static as buildings are demolished (Creative Arts), new ones are added (Visual and Performing Arts, Pflendler Hall, Nanotechnology, and others), and labs are renovated.

Mark and Harry flush the lines leading to eyewashes and safety showers, giving additional attention to those units that do not flow or shut off properly. As needed, they remove up to 6 aerator nozzles from Speakman brand eyewashes, and clean the nozzle screens with Lime-Away. They rinse the screens, replace damaged screens, and then reinstall. For the showers, the crew flushes each unit, collecting the flush water in a 55-gallon drum, mounted on a portable cart. A sump pump discharges the water from the drum into a floor drain or sink. They make any needed repairs to the shower's internal self-closing valve. Repairs that go beyond the scope of the eyewash crew, such as pin holes in a pipe, or the relocation of distant shut-off valves, for example, are referred to Zone plumbers.

Mark and Harry's summer-long journey will take them into more than 70 buildings on campus. They started in Civil and are moving into nearby buildings, eventually closing the season by going to the airport and the farms.

Harry said, "No two days are alike."

Mark commented, "Someone said I was 'all wet' for taking this job and now I know what they were talking about!"



## Eyewash and Safety Shower Testing Questions and Answers:

**Q:** I know that REM checks my eyewash annually during the summer, but how do I know that my eyewash is working any other time that I might need it?

**A:** The American National Standard for Emergency Eyewash and Shower Equipment, ANSI Z358.1-2004, states, "Plumbed equipment shall be activated weekly for a period long enough to verify operation and ensure that flushing fluid is available." A note further states, "The intent is to ensure that there is a flushing fluid supply at the head of the device and to clear the supply line of any sediment build-up that could prevent fluid from being delivered to the head of the device and minimize microbial contamination due to sitting water."

**Q:** How do I check my eyewash if the eyewash drains directly onto the floor without a floor drain?

**A:** Eyewashes may be modified by your zone plumber to accommodate a 5-gallon bucket under the eyewash drainpipe. Turn in a work request with a departmental number or contact your building deputy to initiate the work.

**Q:** What if I find that the eyewash is not operating properly?

**A:** Turn in a work request with a departmental number or contact your building deputy to initiate the work. You should indicate "High Priority – emergency eyewash out of service" if your eyewash is not functioning.

**Q:** Can REM check my eyewash for me weekly?

**A:** Sorry, REM does not have the resources. It is the responsibility of the persons working in the laboratory or shop to weekly check the eyewash.

**Q:** Are there situations where I would want to check my eyewash more frequently than once a week?

**A:** In situations where you are working with very corrosive chemicals with high splash potential, a daily check would be advisable.

**Q:** You've only mentioned eyewashes, should I check my safety shower as well?

**A:** Yes! The ANSI code requiring eyewashes to be checked weekly also requires safety showers to be inspected weekly.

**Q:** How do I inspect the shower without flooding the lab?

**A:** This is a two-person operation. One person will position himself within

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# Eyewash/Safety Shower Inspections

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arms reach of the manual shutoff valve located in the water piping leading to the safety shower. A ladder is sometimes necessary to get within reach. Test the manual valve for ease of opening and closing BEFORE testing the shower. If you cannot operate this manual shutoff valve, do not test the shower because the shower's release valve sometimes sticks in the open position. This is especially true with the pull-chain valve.

The second person will position himself under the shower and prepare to operate the pull valve. This is not the same as the manual valve. The pull valve is intended to operate the shower; turn it on or off. The manual shutoff valve is intended to shut off the water supply to the shower during maintenance and servicing. The second person standing beneath the shower places a five-gallon bucket under the showerhead to enclose it. Now, pull the shower release valve. The shower will gush water into the bucket at a rate of 20 gallons per minute. If chain operated, release the chain quickly. If lever operated, push the lever back up. The shower should shut off before the bucket is full. With a pull-chain valve, if the

shower's self-closing valve sticks open and water does not stop flowing into the bucket, the first person at the manual shutoff valve must immediately close the manual shutoff valve. The same goes with the lever valve, but these are typically much more reliable.

Lastly, if the shower's self-closing valve sticks open and the shower has to be shut off manually, the shower and very likely the eyewash will be out of service. OSHA requires a functioning eyewash if using corrosive material or harmful substances to the eyes. A work order with your proper departmental account number must be immediately turned into the Work Control Center at 49-49999. Mark the work request with "High Priority – emergency shower out of service" and describe the work that needs to be performed. If possible, replace the pull-chain valve with a more reliable ball valve equipped with a rigid pull-down lever. These valves allow the shower to turn on and remain on until the lever is pushed back up, thus closing the valve.

Q: What if I have more questions?  
A: You may call REM at 49-41430.

## Chemical Shipment Returns To The Vendor

By Lanie Hazlewood

Have you ever received the wrong chemical from a vendor? One might believe all you need to do is close the box and send it back to the company. NOT SO! Many materials are considered dangerous goods by the Department of Transportation and require shipping documents, proper packaging and labeling, and preparation by trained individuals.

In addition, vendors often complicate the matter by sending a UPS call ticket with instruction to simply return via UPS. Purdue is not authorized by UPS to send dangerous goods.

So, the next time you need to return a chemical to the vendor, contact Lanie Hazlewood at 67367 or [lhazlewood@purdue.edu](mailto:lhazlewood@purdue.edu) in Radiological and Environmental Management (REM) to assist.

If you frequently need to ship hazardous materials or dangerous goods, you may consider receiving the proper training to do this yourself. The training is provided free of charge by REM and usually takes two hours. Contact Lanie to schedule training or to assist with any of your hazardous material shipping needs.