

THE UNIVERSITY OF MISSISSIPPI

Laboratory Services

Phone (662) 915-5433 FAX (662) 915-5480

LABORATORY SERVICES TRAINING FOR SCIENCE SUPPORT STAFF

Laboratory Services Staff and their areas of responsibility:

Marlania Sharpe Staff Assistant II macraig@olemiss.edu
Training, Scheduling, Disposal Requests, Records Management, Questions, Information Requests

Brielle Grantham Radiation Protection Specialist brielleg@olemiss.edu
Radiation Safety, Shipping Hazardous Materials, Regulatory Compliance, Emergency Response

Shane Kesler Laboratory Services Specialist skesler@olemiss.edu
Hazardous Waste, Chemical Safety, Odor Investigations, Emergency Response

Foster Logan Laboratory Services Specialist fllogan@olemiss.edu
Medical Waste, Biological Safety, Fume Hood and Autoclave Testing, Emergency Response

Edward Movitz Research and Environmental Compliance Officer movitz@olemiss.edu
Regulatory Compliance, Chemical Safety, Emergency Response, Contracts and Grants

Safety Training:

Safety training requirements apply to **all** faculty, staff and graduate students working with biological, chemical, radiological materials or ionizing radiation producing devices on the Oxford Campus. These training requirements will also apply to undergraduate students when they are working in these areas in other than a regularly scheduled University course. There are no exemptions, no matter if they are a “Professor” or a “Departmental Chair.”

In addition, the Chair of a department where personnel use radioactive material or radiation generating devices (x-ray machine, etc.) is **required** to be trained, even if they are not involved with the research!

Schedule Safety Training as soon as someone is hired. **No training-no lab work-no exceptions.** Most new employees and students wait until the last minute to get trained, especially at the beginning of a semester. Schedule early to avoid delays.

Proper Identification (Student ID, Driver’s License, Passport / Visa) is required at the beginning of the training sessions. Training classes start promptly at the Scheduled Time. Anyone who arrives late to training will have to reschedule.

There are Training Handouts for Chemical Safety and Radiation Safety on our web page. Each person will need to make a copy of the appropriate training handout and study it before they come to training.

Training can be verified on-line or by calling Laboratory Services.

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Shipping Hazardous Materials:

Within your department, personnel may need to ship hazardous materials to another researcher, to another university, to another research facility, or even to a manufacturer. These hazardous materials can include compressed gasses, flammable liquids and solids, oxidizers, poisons, corrosive materials, radioactive and biological materials and **even dry ice**.

When hazardous materials are transported by a commercial carrier (FedEx, Airborne, UPS), the shipment becomes regulated by the Department of Transportation (DOT) and sometimes by international agencies. When materials are shipped out of the country, items that may not be considered hazardous in the United States may be classified as hazardous in other countries. To comply with shipping regulations, these hazardous materials must be properly classified, documented, packaged, and handled. For shipments of biological and radioactive materials, transport or export permits and/or authorization may be required prior to shipment.

Since no one is exempt from these federal transportation requirements, and since the penalties may include citations, fines and/or imprisonment, PLEASE make sure that your researchers are not trying to ship any lab chemicals, biological specimens or radioactive materials. Always question any outgoing package - they will appreciate the reminder since individual researchers and shippers may be subject to criminal penalties of up to \$500,000 and five years imprisonment for each violation.

Laboratory Services personnel (5433) will provide assistance with package selection, material classification and documentation. Notify Laboratory Services when someone in your department needs to ship a hazardous material, and to make an appointment for assistance.

Shipping Hazardous Materials is by appointment only. You should contact Laboratory Services the day before your personnel need to ship to be sure someone is available. If our staff are not available, shipments will be delayed.

Have someone fill out and FAX a *Hazardous Materials Transportation and Information Form* to 915-5480, then call for an appointment to have a package prepared for transport.

You must present the hazardous material, the appropriate packaging and either yourself or a representative at Laboratory Services no later than 10 minutes after your scheduled appointment. If you anticipate tardiness, please call to reschedule. Missed appointments will be scheduled for another day / time.

Most materials intended for domestic delivery are ready for shipment in 30 minutes or less. Additional time is required for overseas packages.

Hazardous materials cannot be picked up at drop-off locations.

Hazardous materials must be shipped directly from Laboratory Services.

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Purchasing Radioactive Material:

Radioactive Materials can only be ordered by and shipped to the Laboratory Services Department.

It would be nice if it were that simple. However, Faculty, staff and sometimes graduate students may attempt to have you order radioactive materials. Rest assured, they have been trained and tested - they know how to order Radioactive Materials. They know **ONLY LABORATORY SERVICES CAN ORDER RADIOACTIVE MATERIALS**. But sometimes they still “forget” and attempt to have office personnel order materials. Never feel pressure to order questionable materials. If you have any questions, call Laboratory Services. You do not have to ask permission to call us with a questionable order. As a matter of policy, you never have to ask before you call Laboratory Services.

So, what are the signs that someone is having you order Radioactive Materials?

First, we will have a chemical name and a number combination. The most common forms are:

Carbon 14 Hydrogen 3 Phosphorus 32 Sodium 22 Iodine 125

We also have abbreviations like:

C-14	H-3	P-32	Na-22	I-125
C¹⁴	H³	P³²	Na²²	I¹²⁵
¹⁴C	³H	³²P	²²Na	¹²⁵I

And, any Material or Chemical described with a quantity ending in:

uCi mCi Ci kBq Mbq Gbq Bq

Also, companies that sell Radioactive Materials to the University must have proof of a License to sell or ship materials to us. Usually, these companies only sell radioactive materials to the University. Our most common vendors are :

ABC Laboratories Missouri	7200 E. ABC Lane	Columbia	MO	65202
American Radiolabeled Chem., Inc.	11624 Bowling Green Drive	St. Louis	MO	63146-3506
Amersham Biosciences	800 Centennial Ave.	Piscataway	NJ	08855
Canberra Industries	800 Research Parkway	Meriden	CT	06450
Diagnostics Products Corp.	5700 West 96th Street	Los Angeles	CA	90045-5597
MCMR-RCQ-S	Building 504XX, 504 Scott St.	Fort Detrick	MD	21702-5012
Moravek Biochemicals, Inc.	577 Mercury Lane	Brea	CA	92821
PerkinElmer Life Sciences	549 Albany Street	Boston	MA	02118
Tel-Atomic Inc.	1223 Greenwood Avenue	Jackson	MI	49203
USB Corporation	26111 Miles Road	Cleveland	OH	44128

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Disposal Regulations:

Laboratory Services has a Web page dedicated to disposal of materials.

<http://safety.olemiss.edu/waste-minimization-policy/waste-disposal/>

From Biohazardous waste to glassware, all issues are fully discussed. The people in your department have been trained and tested on these procedures, they do know this!

Calls are serviced in the order received. There may be delays of up to a week or more depending upon prior calls received, end of semester lab cleanouts, unforeseen emergencies, and other incidents that take precedent to disposal requests. If your personnel wait until all of their waste containers are full, they will probably be disappointed. No, we will not drop everything that we have scheduled to come and get their waste. We have told them this a zillion times!!

Here are some important highlights. . .

GLASSWARE:

Glassware **must not** be disposed of with normal trash. Custodial Services Personnel and others have been injured when carrying trash bags with broken glassware in them.

Discarded glassware must be placed in a small puncture proof, double lined cardboard box or a container specifically designed for the disposal of glassware and placed in a dumpster by laboratory personnel.

Never allow Custodial Services to handle broken glassware.

EMPTY CONTAINERS:

Empty containers of five (5) gallons or less may be placed in dumpsters if:

- 1 No hazardous materials can be poured, pumped or drained from the container, AND,
- 2 No hazardous materials remain in the container that can be feasibly removed, AND,
- 3 The walls of the container must not contain any significant residual materials, AND,
- 4 The label is removed or defaced, AND,
- 4 The lid is removed, AND,
- 6 The container is placed directly into a dumpster.

Laboratory Services will not remove empty containers.

HAZARDOUS CHEMICAL WASTE:

1. Chemicals must be disposed of only through the Department of Laboratory Services.
2. All Chemical Waste containers must be conspicuously labeled with the following information:
 - a. "Hazardous Waste",
 - b. Full name(s) of chemical contents and approximate % if necessary. IUPAC and common names are acceptable, abbreviations or chemical formulas are not acceptable,
 - c. Responsible Person or Supervisor, and,
 - d. Building, room number and contact phone number.
3. A disposal request form must be filled out and signed by a supervisor,
4. Someone must call Laboratory Services at 5433 and request a pick up.

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MEDICAL WASTE (ANIMALS, BIOHAZARDS, ETC.):

Medical Waste must be packaged in the red plastic drums provided by Laboratory Services.

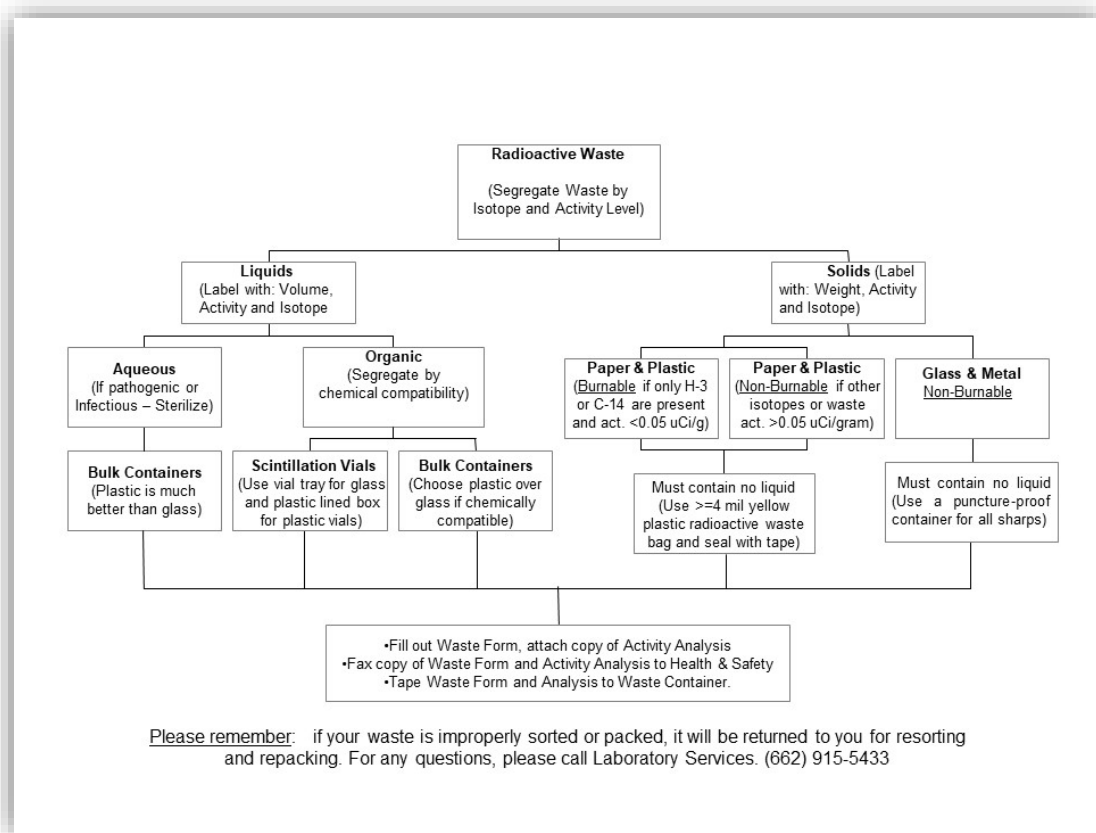
All containers come with a liner. The waste is placed in the liner, filled up to a maximum weight of 45 pounds (21 Kg) including the container, the liner must be twisted and tied with an overhand knot to prevent any liquid leaks and to meet shipping requirements. The container must be securely closed. Labels on the container must not be defaced, covered or removed, and a Request for Biomedical Waste Disposal, Form DHS_71 must be submitted with the waste.

When your personnel have full containers, call Laboratory Services 5433. You will be put on the pick-up schedule.

- Sharp Materials (Sharps - needles, broken glass, and other contaminated materials that could potentially pierce the inner liner) must be placed in puncture resistant containers.
- Animals must be frozen and packed for shipment on the day the shipment is scheduled to be picked up.

RADIOACTIVE WASTE:

A little more complicated:



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SIGNATURES:

Laboratory Services personnel can be injured or die because someone filled out a form incorrectly or because someone left out a little information. Yes, we have had some unfortunate events in the past - but we hope to have no repeats. Only the actual, responsible person may sign their own signature to a Laboratory Services form. Office personnel and graduate students are not allowed to sign for supervisors or for professors. Only original signatures are allowed. No photocopies, no stamps.

LAB ACCESS:

Only personnel who have been trained and tested can go into labs unescorted.

Only personnel trained, tested and approved for access to radioactive labs and areas may enter. No exceptions. Unless you have had Radiation Safety Training and have been approved by the Radiation Safety Committee, you have no business in Radioactive Labs. No one, not graduate students, not professors, not department heads, not even deans can enter a Radioactive Area, or have a key to the lab door, unless they have written approval from the Radiation Safety Committee. No Exceptions!

ODOR COMPLAINTS:

OK, we work around chemicals. There is always construction, renovation, painting, a custodian cleaning, people mixing and bubbling things in the labs - and we have smells and odors. Every so often, you or someone else may notice a "strange odor". Call us. The sooner you call us, the sooner we can find out what is happening. It may be over before we get there if you wait. Usually, we can find the source and stop the problem. Occasionally, someone is working with a harmless material that puts off a disagreeable odor, and we just have to wait for the smell to pass.

EQUIPMENT TESTING:

Laboratory Services tests Autoclaves, Fume Hoods, and some other equipment. We will send certifications and reports to departments, but we DO NOT repair equipment. You will need to submit an SAP notification to have the equipment repaired by the Facilities Management, or you may have to contact an outside contractor or maintenance technician.

And Finally . . .

EVERYTHING WE DO, ALL OUR REGULATIONS, PERSONNEL TRAINING RECORDS, DEPARTMENT FORMS, INSPECTIONS, ETC. ARE ON THE WEB!