

CWRU DEPARTMENT OF OCCUPATIONAL AND ENVIRONMENTAL SAFETY

NEWSLETTER



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"Safety Comes First"
SPECIAL ISSUE: SIGNAGE

Service Building, 1st Floor (216)368-2906/2907 FAX:(216)368-2236 <http://does.cwru.edu>

IN THIS ISSUE:

- **GUIDELINES FOR PACKAGING AND LABELING INFECTIOUS SUBSTANCES AND CLINICAL SPECIMENS** (See page 2).

- **RADIATION NEWS: LABELING AND SORTING RADIOACTIVE WASTE** (See page 3).

- **TRAINING TIMES?** (See page 3).

- **MORE ON LABELING REGULATED CHEMICALS** (See page 3).

- **MORE ON POSTING CAUTION SIGNS** (See page 5).



DR. GOGGLES SAYS, "MAKE SURE YOUR LAB IS SAFE AND SECURE BY DISPLAYING THE RIGHT CAUTION SIGNS!"



Has Your Lab Posted the Appropriate Caution Signs?

According to university policy all laboratories are responsible for posting signs and labels in appropriate places including the entrance to labs, doors to refrigerators and freezers, samples containers, transporting devices, and waste containers. Posting the correct caution signs in your work area is absolutely critical to our university environment and to the health and safety of our staff, students, and faculty. Furthermore, following these guidelines helps the university comply with radiation safety, chemical OSHA Laboratory Standards, Bloodborne Pathogens Standards, and Right-to-Know requirements. In this article you will find some detailed guidelines for posting the appropriate labels and signs in laboratories using biohazardous materials, chemical materials, and radioactive materials. Signage is provided to each working laboratory by Safety Services and the signs provide a university-wide format to standardize warning information. *(Continued on page 5)*

Labeling Regulated Chemicals

All chemical containers must be labeled with the chemical identity and hazard warnings. For example, a formaldehyde label must be placed on anything containing formaldehyde, the bottle and the storage cabinet itself. You may even place such a label on the door if not in a regulated area. The label should read: "Danger--Contains Formaldehyde Irritant and Potential Can-

(Continued on page 3)

Guidelines for Packaging and Labeling Infectious Substances and Clinical Specimens



The transport of clinical specimens and etiological agents (infectious substances) should be done with care in order to minimize any hazard to humans or to the environment and also to protect the viability of suspected pathogens. The transport of infectious items by public or commercial delivery systems may be subject to local, national and international regulations.

Guidelines for Infectious Substances

Definitions:

Infectious substances are defined as substances known to contain, or reasonably expected to contain, pathogens, which are expected to cause infectious disease in humans or animals. Specimens (human, animal, food, environmental, etc.) that are known to or could contain pathogens are now to be classified as infectious substances and should be packaged and shipped accordingly.

Personal Responsibility:

Persons who ship infectious agents or diagnostic specimens must comply with all local and international regulations pertaining to the packaging and handling of these items. They must ensure that specimens arrive at their destination in good condition and that they present no hazard to persons or animals during shipment.

Packaging:

The inner packaging must include the following:

- An inner water tight primary container that is glass, metal, or plastic and has a leak proof seal.
- A watertight, impact-resistant secondary container.
- Absorbent material between the primary container and the secondary container. If multiple primary containers are placed in a single secondary packaging, they must be wrapped individually to ensure that contact between them is prevented.
- An itemized list of contents between the secondary packaging and the outer packaging.

Multiple primary receptacles placed in a single secondary packaging must be wrapped individually (or for infectious substances transported in liquid nitrogen), separated and supported to ensure that contact between them is prevented. The absorbing material must be sufficient to absorb the entire contents of all primary receptacles.

The outer packaging must meet the following requirements:

- Be of sufficient strength to adequately protect and contain the contents.
- Be at least 100 mm (4 inches) in its smallest overall external dimension.
- Be durably and legibly marked on the outside with the address and telephone number of the consignee. A biohazard warning label must be affixed to the outside of the outer container, and must bear the inscription, "Infectious substance. In case of damage or leak

(Continued on Page 4)

Labeling Regulated Chemicals

(Continued from page 1)

cer Hazard. May Cause Respiratory Sensitization. Consult MSDS for Complete Hazard Information.”

The entrances to regulated areas must also display a chemical-specific sign. The OSHA standard for each regulated chemical requires its own specific language for its labels and signs. For example, a red formaldehyde sign must be posted at or near the entrance to an area in which the PEL for formaldehyde has been exceeded, reading, “Danger--Formaldehyde--Irritant and Potential Cancer Hazard. Authorized Personnel Only.”

Detailed information on the health effects of regulated chemicals can be obtained from the OSHA Standard or the MSDS Standard, each accessible through the D.O.E.S. website. Chemical-specific labels and signs are available at Safety Services.

TRAINING SCHEDULE

Radiation (x2906)

- New Training: (check website)
- X-ray Training: (call for times)

Chemical and Biological Safety (x2907)

- OSHA Lab Standard and Regulated Chemicals: Mondays 1-3:00
- Bloodborne Pathogens: Mondays 3-5:00

Please Note: Seats are limited in new training sessions, so be sure to call ahead of time to check on the availability of a training session.

- All online training is available at <http://does.cwru.edu> and **ALL** training (except X-ray) is **REQUIRED ANNUALLY**. All re-training (except regulated chemicals) is available online. Check our website for updates.



RADIATION NEWS: LABELING AND SORTING RADIOACTIVE WASTE

All radioactive waste containers must be labeled with a “Caution Radioactive Material” label. The trefoil labels must be large enough to be clearly visible from all sides of the waste container. A radwaste accumulation log indicating the isotope, activity, and the disposal date should be posted on or near the container. If the log sheet is not directly on the waste container, the isotope, waste type, and maximum activity in the waste container should be written somewhere on the container.

All sinks used for radioactive material disposal must be labeled with “Radioactive Material” tape. A sewer disposal log for each AU indicating isotope, activity, date, and the chemical form of each isotope disposed must be posted so that it is readily visible from the sink.

Radioactive waste should be **separated and sorted** by type--dry solids, beta plate mats, vials, SHARPS, and liquids--and by isotope.

Radioactive waste classified as SHARPS [discarded hypodermic needles, syringes, scalpel blades, cannulas, coverslips, microscope slides, all pipettes (glass or plastic) and pipette tips, test tubes, glass Petri dishes, and other materials designed for use in biological, etiological, bacteriological or tissue culture work capable of causing puncture wounds or cuts] **MUST NOT** be mixed with dry solid materials and must be contained in puncture-proof containers.

DO NOT mix dry waste with scintillation vials. Vial waste should be composed of scintillation vials **ONLY**.

Guidelines for Packaging and Labeling

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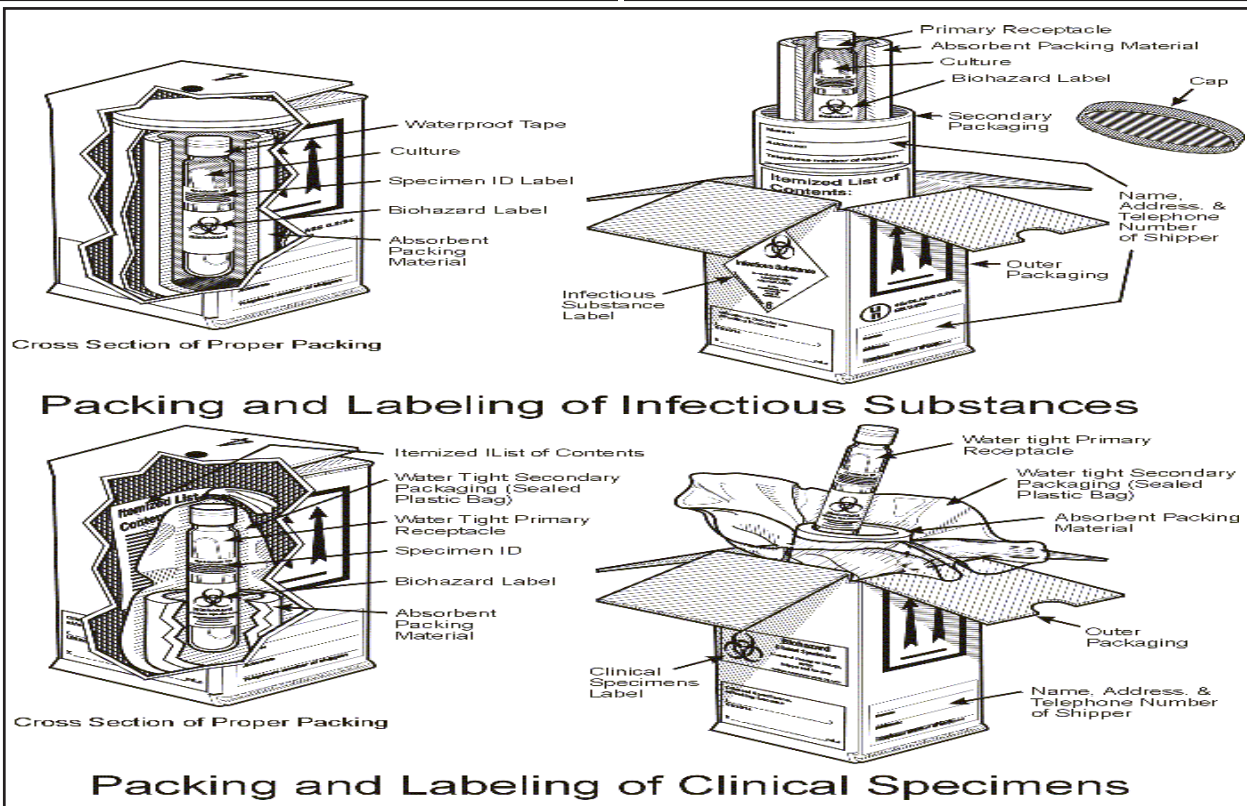
age immediately notify public health authority." Packaging for infectious substances must be marked with United Nations specification markings denoting that the packaging has been tested and certified for shipping infectious substances. (See the figure below for illustrations of these packaging recommendations.)

Guidelines for Clinical Specimens:

Specimens that are not known to or reasonably expected to contain pathogens and are therefore not classified as infectious diseases should be packaged and shipped as clinical specimens. Specimens that have a relatively low probability of containing pathogens are also to be classified as clinical/diagnostic specimens. These include specimens that are transported or shipped

for the purpose of routine screening tests or initial diagnosis. Unless a specimen has been tested to determine that it does not contain a pathogen, it should be packaged and handled delicately to minimize hazard. Clinical specimens with a low probability of containing an infectious agent and those which are not being transported for examination for the presence of pathogens must be packaged as follows:

- Be "triple packaged" as described for infectious agents.
- Be in packaging that will not leak after a 4-foot drop test.
- Have a "Clinical Specimens" label affixed to the outside of the outer container.
- If being shipped by air, bear the following statement, "Contents not restricted, packed in compliance with IATA packing instruction 650." (See the figure below for illustrations of these packaging recommendations.)



Posting Caution Signs

(Continued from page 1)

Guidelines for Biosafety:

Post red/orange biohazard signs and the name and telephone number of the PI as well as an alternate contact at the entrance to all laboratories that use biohazardous materials, or infectious materials or infected animals in the laboratory or animal rooms. Make certain that the warning label indicates any special requirements for entering the area (for example, the need for immunizations or respirators).

Special Guidelines for HIV and HBV:

Laboratories using HIV or HBV must display:

- The identity of the infectious agent used in the lab
- Any special requirements needed for entering the area

In laboratories using HIV and/or HBV all waste materials must be placed in either red or orange containers or in containers marked with the biohazard symbol. All storage devices (refrigerators, freezers, etc.) must also be marked with a biohazard symbol.

Specimens do not have to be marked individually if stored, transported or shipped in a secondary container that is properly marked.

Guidelines for Radiation Safety:

All rooms and areas where radioactive materials are used or stored must post the appropriate signs and labels to inform personnel and visitors to use caution upon entering the area. An Ohio Department of Health

(ODH) "Notice to Employees" information sheet must be posted so that all employees can observe and have the opportunity to read the notice on their way to or from the work area. If the room contains an irradiator, Emergency Procedures should also be posted.

- In Laboratory Areas, a "Caution Radioactive Materials" label and a "No Eating, Drinking, or Smoking" label should be placed on the Emergency Contact Information Sheet. This label must be visibly posted at the entrance to or on the door for each area or room where radioactive materials are stored or used. The name of the AU, as well as the name of an alternate contact along with their home phone numbers should be clearly printed on the Emergency Contact Information Sheet.

- Refrigerators and freezers that are used to store RAM stock solutions and prepared samples should be prominently labeled with a "Caution Radioactive Material" sign. A "Caution Secured Radioactive Material Stored Inside" sign should be posted on the outside door of the refrigerator/freezer.

- All trays, containers, racks, tools, etc. that are used for RAM experiments must be labeled with "Radioactive Material" tape.

- Equipment in hallways (other than refrigerators or freezers) must be labeled "Caution Radiactive Materials." In addition, these items must be posted with a 3"x 5" Emergency Contact form listing the PI's name and emergency contact phone number.

- Label trays, containers, and racks that contain stock solutions of RAM must be labeled with "Radioactive Material" tape that describes the isotope, estimated activity and a reference date (when refrigerated).



D.O.E.S. STAFF

Dr. W. David Sedwick (wds), Director and RSO
Richard Dell (rxd7), Associate Director
Karen Janiga (kej2), Assistant RSO
Richard Harley (rxh2), Loss Prevention Specialist
Felice Thornton-Porter (fst2), Q.A. Specialist
Shirley Mele (smm5), Dept. Administrator
Gwendolyn Cox-Johnson (gxc13), Dept. Asst. II
Virginia LaGuardia (vfl), Dept. Asst. I
Elizabeth Sirkin (exs83), Technical Writer

Chemical Safety

Robert Latsch (rnl2), Specialist I
Marc Rubin (mdr6), Engineer II
Mahdi Fahim (mhf6), Specialist I
Jennifer Bambeck (jab41), Specialist I
Bill Cummins, (whc7), Plant Safety Specialist I
Greg Clark (gac7), Specialist I

Radiation Safety

Yelena Neyman (yxt13), Specialist I
Joanna Bielawski (jxb153), Specialist I
Henry Wayne Justice (hwj), Specialist I
Cheng Zhou (cxz16), Specialist I
Ed Traverso (ejt), Specialist II
Arif Peshimam (azp1), Specialist I
Jennifer Ress (jtr10), Specialist I