HAZARDOUS MATERIAL SAFETY

PROCEDURES

Effective Date: January 1, 1992
Revised Date: March 1993

UT Memphis shall implement a program that protects its employees from hazardous chemical in accordance with Section 1910.1200 of the Occupational Safety and Health Act (OSHA), entitled ^{3}Hazard Communication^{2}, and the State of Tennessee House Bill No. 731, entitled ^{3}The Hazardous Chemical Right-to-Know Law,^{2} and, in doing so, shall meet the general requirements summarized below:

- It shall post notices (prepared by the Tennessee Department of Labor) of employee rights under the acts.
- It shall maintain and make available to employees the most current Material Safety Data Sheets (MSDSs) for hazardous chemicals used in their workplaces.
- If the MSDS is not available as required, after a compliance procedure is exhausted, the employee may refuse to work with the hazardous chemical without penalty.
- It shall maintain labels on containers, and if the hazardous chemical is transferred to another container, it shall appropriately label the transfer container.
- It shall not require employees to work with a hazardous chemical if the container is not properly labeled.
- It shall provide an education and training program for employees pursuant to standards established by regulation and shall provide annual refresher courses.
- It shall inform employees of exposure to hazardous chemicals, provide access to the workplace chemical list and MSDSs, and provide a copy of the MSDS on request.
- It shall not retaliate against any employee for exercising rights under the acts.
- It shall not require prospective employees to waive any right under the acts as a condition of employment.
- It shall file with the Tennessee Department of Labor a workplace chemical list for chemicals stored in any one building in excess of fifty-five gallons or five hundred pounds. This list shall contain the CAS (Chemical Abstract Services) number, if such number is on the MSDS, and the list must be updated at least annually.
- It shall keep copies of such lists for thirty years.
- Any information provided under the acts shall not release it from liability under any other law.
- It shall implement procedures contained in the Procedures for the Use of Hazardous Chemicals at The University of Tennessee, Memphis to enable it to comply with the legal requirements of OSHA and State of Tennessee House Bill No. 731.

A copy of the Procedures for the Use of Hazardous Chemicals at The University of Tennessee, Memphis is included as an appendix.

Chemical Hygiene Plans (CHPs) shall be prepared and implemented for each laboratory by the appropriate department or unit as the foundation for compliance with requirements contained in Occupational Exposures to Hazardous Chemicals in Laboratories, as noted in Subject H. Laboratory Safety. Items in the CHP include labeling of hazardous chemicals; engineering controls, such as biological safety cabinets and fume hoods; contaminated waste removal and disposal; spills; recordkeeping; personal protective equipment; training; chemicals requiring approval for use; medical consultations and examinations; on-the-job injuries; and Department of Transportation and Environmental Protection Agency (EPA) classifications of hazardous chemicals.

A sample Chemical Hygiene Plan is included in the UT Memphis Safety Manual.

The Resource Conservation and Recovery Act (RCRA) establishes a "cradle-to-grave" system for the handling of wastes deemed by the RCRA to be hazardous. Under RCRA, the EPA separately regulates hazardous waste generators, transporters, and owners and operators of hazardous waste treatment, storage, or disposal facilities. If UT Memphis generates between 100 kg and 1,000 kg per month of non-acute hazardous waste and less than 1 kg per month of acute hazardous waste (see sample CHP for definitions), it is subject to the RCRA generator rules which are found in the Code of Federal Regulations (CFR) at 40 CFR Part 262 and shall meet the following general requirements:

- It shall review each of its solid wastes to determine whether the waste is hazardous.
- It shall obtain an EPA identification number.
- It shall comply with certain requirements regarding preparation of wastes for off- site shipment, including packaging, labeling, marking, and placarding standards.
- It shall comply a manifest form for wastes shipped off-site, retain a copy for its own records, and provide copies to the waste transporter.
- It shall certify on the manifest that it has made a good faith effort to minimize waste generation and to select the best waste management method that is available and that it can afford. The UT Memphis Waste Minimization and Chemical Disposal Guide has been developed in this regard, and a copy is appended to this document.
- If it does not receive a copy of the manifest signed by the facility to which the waste was being sent within 60 days after the waste was taken off-site, it shall file an "Exception Report" with the EPA, or a delegated state authority, with a copy of the manifest and a note advising that the generator has not received confirmation of delivery.
- It shall retain for at least three (3) years copies of manifests and test results, waste analyses, or other information used in determining whether its wastes are hazardous.
- It shall only accumulate hazardous wastes on-site for up to 180 days, or up to 270 days if the wastes must be transported 200 miles or more for off-site treatment, storage or disposal.
- It shall not accumulate more than 6,000 kg of hazardous waste on site at any one time.
- It shall see that waste containers are clearly marked with the date that accumulation begins and with the words "Hazardous Waste."

- It shall follow EPA-specified emergency preparedness and prevention procedures.
- It shall see that accumulation tanks, containers, and hazardous waste storage areas meet appropriate design and operational criteria.

If UT Memphis generates more than 1,000 kg of non-acute hazardous waste or more than 1 kg of acute hazardous waste, it shall also meet the following requirements, also set forth in 40 CFR Part 262:

- It shall provide accumulation tanks and containers in accordance with more stringent EPA requirements than the requirements above, including containment and release detection requirements for tanks and standards for closure of accumulation areas.
- It shall implement a formal program to train personnel in proper hazardous waste management procedures.
- It shall develop a formal contingency plan to mimimize health or environmental risks from fires, explosions or sudden releases of harmful elements into the environment.
- It shall submit a Biennial Report to EPA, or a delegated state authroity, on March 1 of each even-numbered year concerning wastes shipments and waste minimization efforts during the preceding year, and such report shall be retained for at least three (3) years.
- It shall accumulate wastes for no more than 90 days (an emergency extension of up to 30 days may be granted on a case-by-case basis), rather than the 180/260- day time period for smaller generators discussed above.
- The exception to the manifest requirement for wastes that are shipped off-site for reclamation shall not apply.
- It shall certify that it has a waste miminization program in place and that it has selected the available method of storage, treatment or disposal that minimizes environmental risks. The UT Memphis Waste Minimization and Chemical Disposal Guide has been developed in this regard, and a copy is appended to this document.
- It shall implement the following, more stringent, Exception Report requirements rather than those discussed above:
- If it has not received a signed copy of the manifest from the storage, treatment, or disposal facility within 35 days after the waste was taken off-site, it shall contact the transporter and/or the waste facility to determine the status of the waste.
- If the signed copy of the manifest is not received within 45 days of date of shipment, it shall file with the state an Exception Report consisting of a copy of the manifest and a cover letter explaining the efforts taken to locate the waste and the results of those efforts.
- Such reports shall be retained for at least three (3) years.

The Tennessee Hazardous Waste Management Act, administered by the Tennessee Department of Conservation, Division of Hazardous Waste Management, requires that UT Memphis, as a hazardous waste generator, develop and maintain a hazardous waste emergency plan. A copy of the Hazardous Waste Emergencies Contingency Plan is appended to this document.

If UT Memphis exceeds the waste accumulation limits, it then becomes a RCRA storage facility. In such cases, it shall apply for a storage permit under 40 CFR Part 270, and it shall meet additional related requirements contained in the RCRA.

The Safety Office shall develop requirements for transport, treatment, and disposal of hazardous wastes, and shall work with Purchasing in the award of a contract to the vendor submitting the lowest and best bid to provide these services. As a generater, UT Memphis shares responsibility with the vendor for the safe management and ultimate disposal of its hazardous wastes. Facilities and Purchasing shall carefully consider vendor qualifications to insure that wastes are not released into the environment.

The Campus Safety Officer shall prepare a Hazardous Waste Annual Report and forward to the State of Tennessee Department of Conservation and Environment, Division of Solid Waste Management, upon receipt of forms from, and in accordance with the schedule established by, that agency. The Campus Safety Officer shall provide a copy of the report to the University-wide Safety and Health Administration Office.

The OSHA Bloodborne Pathogens Standard contains procedures established to reduct on-the- job risks for all employees exposed to blood. UT Memphis shall implement a program to comply with this standard and, in doing so, shall meet the following general requirements:

It shall develop a written Exposure Control Plan, to include:

- Exposure Determination (identification of workers with occupational exposure to blood and other potentially infectious material):
- Schedule and Method of implementaiton for:
- Methods of Compliance, including:
  - Universal Precautions
  - Engineering and Work Practice Controls
  - Personal Protective Equipment
  - Laundry
- HIV and HBV Research Laboratories and Production Facilities, including:
  - Research and Production Laboratory Criteria
- Hepatitis B Vaccination and Post-Exposure Evaluation and Follow-up, including:
  - Hepatitis B Vaccination
  - Post-Exposure Evaluation and Follow-up
  - Information Provided to Heatlhcare Professionals
  - Healtcare Professional's Written Opinion
- Communication of Hazards to Employees, including:
  - Labels and Signs
  - Information and Training
- Recordkeeping, including:
  - Medical Records
  - Training Records
  - Availability
  - Transfer of Records

UT Memphis shall follow the Protocol for Evaluation, Prophylaxis and Follow-up of Faculty, Housestaff, Other Employees and Students Exposed to Blood Borne Pathogens (i.e., HIV, Viral Hepatitis) that has been developed by the UT Memphis Committee on Infection Control.

A copy of the Exposure Control Plan is included in the UT Memphis Safety

Manual.

The Safety Office shall develop requirements for the designation, segregation, packaging, storagetransport, treatment, and disposal of infectious waste, and shall work with Purchasing in the award of a contract to the vendor submitting the lowest and best bid to provide these services. EPA recommends the following separate categories of infectious waste:

- Isolation waste.
- Cultures and stocks of infectious agents and associated biologicals.
- Human blood and blood products.
- Pathological waste.
- Contaminated sharps.
- Contaminated animal carcasses, body parts, and bedding.
- Miscellaneous, including any waste known to be infected with bloodborne diseases.

A copy of the Facilities Inspection Program, which includes waste management, is included in the UT Memphis Safety Manual.

Statements which may reference appended materials are not included in this Administrative
Manual but are available as appendices in the Campus Safety and Health Procedures Manual or by
contacting the Campus Safety Officer.