

UNIVERSITY OF NORTH FLORIDA

HAZARDOUS MATERIALS MANAGEMENT PROGRAMS

General Requirements and Organizational Responsibility

All hazardous and potentially hazardous materials are required to be procured, stored, used and disposed of in compliance with appropriate State and Federal regulations and University of North Florida (UNF) policies. The Department of Environmental Health and Safety (EH&S) is charged with oversight responsibility and provides regulatory information and recommendations. Laboratory and general work area compliance assessments are conducted at least annually and include a site inspection, safety survey and report. The supervisor is responsible for implementing the corrective measures described in the survey report and for providing information on chemical inventories, personal protective equipment and hazard communication.

A. Biological Materials

1. Procurement -- All biological materials are required to be secured in compliance with applicable State and Federal regulations. Regulatory agencies include: the United States Department of Agriculture (USDA); Animal & Plant Health Inspection Service (APHIS); Florida Division of Plant Industry (FDPI); Food & Drug Administration (FDA); Environmental Protection Agency (EPA); the Florida Department of Health & Rehabilitative Services (HRS) and the Florida Department of Labor & Employment Security (FDLES). The UNF Biological Safety Manual, Blood Borne Pathogens Program and EH&S should be consulted for permit applications and additional information.
2. Use -- All biological materials shall be used in compliance with State and Federal regulations as well as University policy. This includes guidance documents from the Centers for Disease Control (CDC) and National Institutes of Health (NIH), the National Institute of Occupational Safety & Health (NIOSH), the Occupational Safety and Health Administration (OSHA) and UNF policy. Note that certain categories of use require registration and approval in advance. These include all recombinant DNA, certain animal, plant and human pathogens as well as certain types of tissue cultures.

All acute toxins (mammalian LD₅₀ <100 ug/kg) are required to be registered with EH&S. The UNF Biological Safety Manual contains the bio-agent registration policy and EH&S can provide additional information.

3. Storage -- All biological materials are required to be stored in compliance with UNF policy. This involves the use of labeled, non-breakable containers in designated, restricted access areas. The UNF Biological Safety Manual contains specific information.
4. Disposal -- All biological waste is required to be inactivated by the generator prior to disposal. There are **no** exceptions. Consult the UNF Biological Safety Manual for

specific information on disposal requirements and inactivation methods. In addition, certain methods and materials must undergo periodic certification according to HRS and UNF policies. This includes autoclaves. Refer to the UNF Biological Safety Manual for more information.

B. Chemicals

1. Procurement -- It is strongly recommended that all chemical inventories be held to a minimum. All labs are required to maintain complete chemical inventories. All chemical requisitions require EH&S review prior to processing. Please refer to EH&S memorandum dated January 5, 1994. The UNF Chemical Hygiene Plan (CHP) contains specific information concerning chemical inventory requirements.
2. Use -- UNF complies with the Occupational Safety and Health Administration (OSHA) Standard for Occupational Exposure to Hazardous Chemicals in Laboratories (OSHA Laboratory Standard); the OSHA General Industry Standards for employee protection; applicable components of the EPA's Emergency Planning and Community Right-to-Know Act; and the Florida Right-to-Know Law. All hazardous chemical use is to be confined to closed systems or dedicated local ventilation equipment such as fume hoods. Spill kits, protective equipment and contingency plans for accidental releases are required in all wet chemical labs.
3. Storage -- Chemical storage is required to be in compliance with EPA and OSHA Standards, National Fire Protection Association (NFPA) guidelines and UNF policy.

These standards and guide documents address issues such as containment, ventilation and security as well as consideration of material compatibility, container compatibility, labeling, dating, shelf life, and personal protective equipment. The UNF CHP and the UNF Accumulation Point Guidelines provide specific information.

4. Disposal -- UNF is a registered small quantity generator of hazardous chemical waste under EPA Resource Conservation and Recovery Act (RCRA) regulations (40 CFR 260-265). UNF complies with Chapter 17-30 of the Florida Administrative Code (FAC) as instituted by the Florida Department of Environmental Protection (FDEP), an EPA authorized State enforcement agency. All chemical waste that meets the definition of hazardous under RCRA is required to be disposed of via the UNF waste disposal program. Other chemical wastes, though not hazardous by RCRA definition, are routinely included in the hazardous waste program as non-regulated wastes. This ensures that all of the University's chemical wastes are disposed of in an environmentally responsible manner. In addition to routine disposal of chemical wastes, UNF promotes waste minimization (source reduction, reuse and recycling), special handling and disposal of shock sensitive compounds and identification and disposal of unknown compounds.
5. Pesticides -- Pesticides represent a subset of chemicals for which the following requirements are applicable, in addition to those listed above.

a) Procurement -- EH&S shall approve all pesticide purchases to assure compliance with storage policies and applicable State and Federal regulatory requirements.

b) Use -- Pesticide use shall be in compliance with: the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA); the Endangered Species Act (ESA); Florida Statutes, Chapter 482 (FS Chapter 482), the Pest Control Act; FS Chapter 487, Mosquito Control; and requirements of the Florida Department of Agricultural and Consumer Services (FDACS). Certain employees working with pesticides are required to receive medical monitoring for both respiratory protection and cholinesterase screening.

UNF's Pesticide Procedure provides specific information regarding receiving, dating, labeling, mixing, loading, applying and waste handling.

c) Storage -- Pesticide storage shall be in accordance with regulations of FDACS and UNF requirements as found in UNF's Pesticide Policies and Procedures Manual.

6. Pressurized Cylinders -- This topic is covered by the UNF Chemical Hygiene Plan, NFPA Guidelines and OSHA General Industry Standards. Please refer to UNF Compressed Gas Safety Rules for specific information.

C. Radioactive Materials

NOTE - UNF currently utilizes regulated radionuclides in the Department of Natural Sciences.

1. Procurement -- EH&S shall approve all radioactive material purchases to ensure compliance with Radioactive Materials License conditions and applicable State and Federal regulations.
2. Use -- Use of radioactive material shall be in compliance with requirements of: Radioactive Materials Licenses; University's Radiation Safety Program; FAC Chapter 10D-91, Control of Radiation Hazard Regulations (HRS); and Title 10 CFR Parts 19, 20, 50 and 70 (Nuclear Regulatory Commission).

The Radiation Safety Program provides specific information regarding material inventories, routine surveys, exposure limits, bioassay program, personnel training, warning signs and labels, monitoring and waste handling. Consult EH&S for more information on the Guide.

3. Storage -- Radioactive materials must be secured against unauthorized removal from the place of storage or use. Storage facilities must be properly labeled and shielded. Refer to the Radiation Safety Program for details.
4. Disposal -- All radioactive materials shall be disposed of in accordance with State and Federal regulations. Specific procedures for radioactive waste disposal are

contained in the Radiation Safety Program. Transfer of radioactive material to another laboratory or institution must be approved by EH&S prior to the transfer.

D. Storage Tanks -- EH&S has oversight responsibilities for UNF Storage Tanks. EH&S ensures that all UNF tanks comply with Chapter 17-761 and Chapter 17-762 FAC as well as Title 40 of the Code of Federal Regulations, Part 280 (40 CFR Part 280).

1. Procurement -- EH&S shall approve all bulk storage tank purchases and/or contractor bids for tank installation, upgrading or removal to assure compliance with applicable State and Federal regulations.
2. Use -- Operation and maintenance of bulk storage tanks shall be in compliance with applicable State and Federal regulations as well as UNF policies. Proper performance and recording of release detection checks, registration, inventory reconciliation, cathodic protection and monthly maintenance examinations are typical minimum requirements. Consult EH&S for specific information.
3. Removal -- All unused and abandoned storage tanks must be removed. Certain tanks may require the use of a pollutant storage tank system specialty contractor. Contamination assessment actions are required for all tank closures in accordance with State and Federal regulations and UNF policies. Consult EH&S for specific information.

E. Other -- In addition to the previously referenced regulations, policies and manuals, please note that the following requirements and programs are applicable.

1. Laboratory Safety Program -- The Laboratory Safety Program monitors activities at UNF's research and teaching labs. Monitoring includes semi-annual inspections, fume hood profiles, chemical inventory and hazard communication. In addition, training is conducted to introduce and reinforce University policies.
2. Indoor Air Quality Program -- The IAQ program establishes procedures for documenting, responding to and correcting poor indoor air quality in University buildings. Current guidance from OSHA, EPA, NIOSH and the CDC are utilized in program development and evaluation. The program emphasizes proper medical evaluation, relocation during investigative measures and follow-up to ensure corrective measures are effective.
3. Respiratory Protection Program -- The University's Respiratory Protection Program complies with the OSHA Respiratory Protection Standard and NIOSH decision logic criteria. Elements include pre-employment and periodic medical evaluation, training, fit testing and program evaluation.
4. Confined Space Entry Program -- UNF's Confined Space Program is compliant with the OSHA Permit Required Confined Space Entry Program 29 CFR 1910.146. This includes identifying and labeling entries to regulated areas, air monitoring, training,

permitting, emergency response and recordkeeping components.

5. The University conducts a procedure to screen laboratory equipment prior to disposal. This screening ensures that no chemical, biological and radioactive contamination remains on equipment when it leaves the laboratory.
6. Pursuant to FAC 62-737, UNF collects spent mercury containing lamps for recycling utilizing a state contract vendor. Spent lamps are removed from fixtures, returned to their original shipping containers and held in a labeled area for pick by the vendor. Containers are also labeled and personnel are instructed as to proper handling, packaging and spill response procedures.