



## FACILITIES OPERATIONS AND MAINTENANCE DEPARTMENT

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**I) Hazardous Waste Management Plan**

This plan has been developed to provide specific procedures for the management of hazardous wastes generated at South Texas College (STC). This plan also serves to ensure compliance with United States Environmental Protection Agency (USEPA) and Texas Commission on Environmental Quality (TCEQ) regulations pertaining to management of hazardous wastes.

**II) Responsibilities**

As an academic institution, South Texas College supports the use of chemicals and other potentially hazardous materials for purposes of the day to day operations, lab practice and instruction. The college is dedicated to the safety of its students, employees, and visitors and intends to comply with all regulatory requirements which impact its facilities and operations. Failure to enforce or follow any safety procedures may result in appropriate disciplinary actions in accordance with college policy. STC has designated the following specific responsibilities:

- **President/Vice President of Finance and Administrative Services**  
Has the final responsibility for providing the necessary resources for the proper and compliant management of hazardous wastes generated by all areas at STC.
  
- **Facilities Operations and Maintenance Department**  
The Operations and Maintenance Department will administer the waste management plan and will provide storage and disposal guidance to all areas that generate hazardous waste.
  - **Director of Facilities Operations and Maintenance**
    - Require all staff to adhere to the requirements of this plan.
    - Require all staff who handles hazardous waste to receive training.
    - Require annual inspections of all locations where hazardous waste is stored to ensure it is being managed properly.
  
  - **Environmental, Health and Safety Manager**
    - Maintain appropriate and current waste certifications and permits.
    - Audit Hazardous Waste Management Plan at least annually.
    - Inspect the designated Hazardous Waste accumulation locations.
    - Review laws and regulations for compliance.
    - Ensure proper reporting to corresponding environmental agencies.
    - Receive training on hazardous waste management and chemical handling.
  
  - **Faculty and Staff**  
The responsibilities of STC Faculty and Staff creating hazardous waste include:
    - Enforce Safety regulations in all labs/shops
    - Inform/train students and part time employees of hazardous waste handling guidelines
    - Follow the disposal guidelines for each area
    - Report any hazardous to supervisors and/or safety officer.

### III) Waste Determination

#### ▪ Hazardous Waste

The hazardous waste identification process is the crucial first step in the hazardous waste management system. Correctly determining whether a waste meets the RCRA definition of hazardous waste is essential to determining how the waste must be managed. The waste generator has responsibility for determining if a waste is a RCRA hazardous waste.

### IV) Hazardous Waste

A **hazardous waste** is waste that poses substantial or potential threats to public health or the environment. U.S. environmental laws additionally describe a "hazardous waste" as a waste (usually a solid waste) that has the potential to:

- cause, or significantly contribute to an increase in mortality (death) or an increase in serious irreversible, or incapacitating reversible illness; or
- pose a substantial (present or potential) hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed.

These wastes may be found in different physical states such as gaseous, liquids, or solids. A hazardous waste is a special type of waste because it cannot be disposed of by common means (wikipedia.com).

There are specific federal and state specifications for what classifies a waste as "hazardous". In general, a hazardous waste may be a "Characteristic Waste" or a specific "Listed Waste".

Listed below are the two types of hazardous waste:

- **Characteristic Wastes** Waste that have not been specifically listed may still be considered a hazardous waste if it exhibits one of the four characteristics defined in EPA's 40 CFR Part 261 Subpart C - **ignitability (D001), corrosivity (D002), reactivity (D003), and toxicity (D004 - D043)**.
  - **Ignitability** - Ignitable wastes can create fires under certain conditions, are spontaneously combustible, or have a flash point less than 60 °C (140 °F). Examples include waste oils, mineral spirits and used solvents.
  - **Corrosivity** - Corrosive wastes are acids or bases (pH less than or equal to 2, or greater than or equal to 12.5) that are capable of corroding metal containers, such as storage tanks, drums, and barrels. Battery acid is an example.
  - **Reactivity** - Reactive wastes are unstable under "normal" conditions. They can cause explosions, toxic fumes, gases, or vapors when heated, compressed, or mixed with water. Examples include lithium-sulfur batteries and explosives.
  - **Toxicity** - Toxic wastes are harmful or fatal when ingested or absorbed (e.g., containing mercury, lead, etc.). When toxic wastes are land disposed, contaminated liquid may leach from the waste and pollute ground water.

- **Listed Wastes**

Listed wastes fall into three categories. Each listed waste has a hazardous waste number which starts with the letter "F", "K", "P", or "U":

- **"F" Waste** - (non-specific source wastes). This list identifies wastes from common manufacturing and industrial processes, such as solvents that have been used in cleaning or degreasing operations. Because the processes producing these wastes can occur in different sectors of industry, the F-listed wastes are known as wastes from non-specific sources.
- **"K" Waste** - (source-specific wastes). This list includes certain wastes from specific industries, such as petroleum refining or pesticide manufacturing. Certain sludges and wastewaters from treatment and production processes in these industries are examples of source-specific wastes.
- **The P-list and the U-list** (discarded commercial chemical products). These lists include specific commercial chemical products in an unused form. Some pesticides and some pharmaceutical products become hazardous waste when discarded.
  - **"P" Waste** - waste chemicals that are considered acutely hazardous when discarded because they can be extremely dangerous to human health or the environment. Cyanides and arsenic as well as some pesticides are found in this table.
  - **"U" Waste** - Examples include phenol and formalin.

V) **Satellite Accumulation Areas**

- A satellite accumulation area is an area at or near any point of generation where hazardous waste initially accumulates and that is under the control of the operator of the process generating the waste. A generator may accumulate up to fifty-five gallons of hazardous waste or one quart of acutely hazardous waste at a satellite accumulation area (40 CFR 262.34(c)).(EPA.GOV)
- This area must be clearly marked, Satellite Accumulation Area and secured or separated from the normal laboratory or work area.
- Collection containers must always be securely closed except during the act of filling and labeled with accumulation start date.
- All hazardous waste containers shall have a secondary containment container.

## **VI) Labeling Waste Containers**

- Any container that contains a liquid, solid or gas waste shall be labeled.
- If a container does not have a label and waste is stored within, one shall be placed and identified.
- All containers that contain a hazardous, universal and non-hazardous waste shall be labeled accordingly.
- If a container contains hazardous or universal waste, “Hazardous Waste” or Universal Waste” label shall be placed on container with accumulation start date.
- All labels will be legible, in English, and prominently displayed on the container.

## **VII) Training**

Appropriate training must be provided to ensure that individuals involved in hazardous waste generation and disposal understand regulatory requirements and methods to minimize hazards and risk associated with the management of hazardous waste. This training may include instructions in EPA, TCEQ, OSHA and USDOT.

## **VIII) Removal of Hazardous Waste**

- Each department shall be responsible for the removal and disposal of hazardous waste
- Each department will make arrangements for pickup and disposal at regular intervals before the material exceeds the legal storage time.
- All waste shall be removed and disposed of by the first year of accumulation start date.
- Each department shall follow proper waste disposal procedures set by the Environmental, Health and Safety Program.
- All copies shall be kept for at least three (3) years.

## **IX) Transportation and Disposal Management**

All transportation of hazardous or universal waste outside the college shall be performed by an authorized transporting company that complies with:

- EPA (Standard for transporters of hazardous waste (40 CFR 263)
- USDOT (49 CFR Parts 173,177 and 178)
- TCEQ (30 TAC Sections 335.9 – 335.94)

## **X) Recordkeeping and Reporting**

The Environmental, Health and Safety Manager is responsible of collecting and filing all records required by TAC 30 chapter 335.

- Records must be kept for at least three (3) years from the due date of the report.

- Records can be kept in any format but they must be easy to retrieve and copy.

#### TAC 30 Chapters 335

- Generators: 30 TAC, Section 335.9
- Manifesting: 30 TAC, Section 335.10
- Waste Shipments: 30 TAC, Section 335.13
- Transporters: 30 TAC, Section 335.14
- Receivers: 30 TAC, Section 335.15

### **XI) Emergency Response**

Any risk associated with the handling of hazardous chemicals such as spills, leaks, releases or other must be managed in accordance with this plan. This information will provide actions of personnel to minimize the hazards to human health and environment.

Trained personnel will be available to respond to any emergency call 24 hours per day and can be contacted through the Security Dispatch office at 956-872-2589.

In case of a major or catastrophic event, the on-call responder must immediately report to Environmental, Health and Safety Manager or the Director of Facilities Operations and Maintenance for further instructions.