

Element Z | General Design Requirements

Owner Standards and Other
Requirements

Z4036 Hazardous Waste Storage Room Requirements

PART 1 - GENERAL

1.01 OVERVIEW

- A. This document provides design and construction criteria for Hazardous Waste Storage Rooms at The University of Texas MD Anderson Cancer Center (Owner).
- B. Refer to the "D" series Design Guideline Elements for requirements relating to mechanical, plumbing, and electrical work.
- C. Refer to Design Guideline Element Z2005 Codes and Applicable Regulatory Agencies, specifically NFPA 30-2015.
- D. Refer to Code of Federal Regulations, Title 40, Parts 264 and 265 and Texas Administrative Code, Title 30, Part 335.

PART 2 - DESIGN CRITERIA

2.01 GENERAL

- A. Locate Hazardous Waste Storage Rooms in close proximity to major hazardous waste generators within a building.
 - 1. Consider floor level selection, dedicated exhaust duct pathway, and waste transport routing to building's dock or service door for removal by hazardous waste contractor.
 - 2. Consider locating separate Storage Rooms in close proximity to Hazardous Waste Storage Rooms, for non-hazardous supplies used to manage hazardous waste.
 - 3. Consider need for Aisle Space sufficient to allow movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment in an emergency. [40CFR265 and 30TAC335]
- B. Floors of Hazardous Waste Storage Rooms are to be formed to create a Secondary Containment, having curbs, berms, steps, ramps and/or slopes of a height consistent with total storage volume requirements.
 - 1. Floors are to be sealed; free of cracks or gaps and sufficiently impervious so as to contain stored material leaks, spills and accumulated precipitation until the collected material is detected and moved.
 - 2. Secondary Containment must have sufficient capacity to contain 10% of the total volume of containers or the volume of the largest single container stored, whichever is greater. [40CFR264 and 30TAC335].
- C. Construction of Hazardous Waste Storage Rooms is to be fire rated in accordance with the requirements of NFPA 30. Storage of Liquids in Containers – General Requirements, Construction Requirements, Table of Fire Resistance Ratings for Liquid Storage Areas, for the Type of Storage Area.

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1. Room finishes are to be epoxy: walls and ceiling, semi-gloss; floors, non-slip.
- D. Doors of Hazardous Waste Storage Rooms are to be single panel type, with on floor level sill, have a minimum standard width of 48", swing out, have no light, and have a store room function lever set keyed to code 21.B90.
 1. Owner/Operator Note: The owner or operator must prevent the unknowing entry, and minimize the possibility for the unauthorized entry, of persons or livestock onto the active portion of his facility. [40CFR265]
- E. Ventilation is to be provided in Hazardous Waste Storage Rooms by a dedicated system having continuous mechanical exhaust in accordance with NFPA 30, Dispensing, Handling, Transfer, and Use of Liquids, Ventilation for Dispensing Areas.
 1. Supply air grilles are to be located at ceiling level.
 2. Exhaust grilles are to be located at ceiling and floor levels. Proportion airflow evenly.
 3. Exhaust fans are to be of AMCA Standard 99-0401-86 Spark A rated construction.
 4. Loss of ventilation alarms are to be located inside Rooms.
- F. Lighting and electrical in Hazardous Waste Storage Rooms, including all equipment in or serving rooms, to be intrinsically safe, Class 1 Division 1 or 2, in accordance with NFPA 30, Electrical Systems. Lighting controls are to be placed by the door outside the room.
 1. Owner/Operator Note: Precautions must be taken to prevent accidental ignition or reaction. Waste must be separated and protected from sources of ignition or reaction including but not limited to: Open flames, smoking, cutting and welding, hot surfaces, frictional heat, sparks (static, electrical, or mechanical), spontaneous ignition (from heat-producing chemical reactions), and radiant heat. [40CFR265]
- G. Automatic Fire Protection in Hazardous Waste Storage Rooms is to be provided and installed in accordance with requirements of NFPA 30, Automatic Fire Protection for Inside Liquid Storage Areas. [40CFR265]
- H. Fire Alarm Systems for Hazardous Waste Storage Rooms are to include strobe/horn and fire/smoke detection devices. [40CFR265]
- I. Fire Extinguisher Cabinets are to be provided for Hazardous Waste Storage Rooms and in accordance with master specification 10 44 00. [40CFR265]
- J. Fire Alarm Pull Stations, UTPD Emergency Pull Stations and Wall Phones having an outside line are to be located near to and outside of Hazardous Waste Storage Rooms. [40CFR265]
 1. Owner/Operator Note: Whenever hazardous waste is being poured, mixed, spread, or otherwise handled, all personnel involved in the operation must have immediate access to an internal alarm or emergency communication device, either directly or through visual or voice contact with another employee, unless such a device is not required under 40CFR265.

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2. Owner/Operator Note: If there is ever just one employee on the premises while the facility is operating, he must have immediate access to a device, such as a telephone (immediately available at the scene of operation) or a hand-held two-way radio, capable of summoning external emergency assistance, unless such a device is not required under 40CFR265.
- K. Emergency Shower and Eye Wash Equipment is to be located outside of and near Hazardous Waste Storage Rooms in accordance with Design Guideline Element D201001.
- L. Signage having emergency response information is to be posted on outside of main doors to Hazardous Waste Storage Rooms, on door or wall adjacent and next to Wall Phones. [40CFR265 and 30TAC335]
 1. The name and telephone number of the emergency coordinator or the procedures for contacting that person;
 2. The location of the nearest fire extinguisher, spill control material and fire alarm; and
 3. The telephone number of the fire department (911).
 4. The name, address, location, TCEQ Solid Waste Registration (SWR)# and EPA ID# of the facility.

ENVIRONMENTAL HEALTH AND SAFETY
HAZARDOUS WASTE STORAGE FACILITY
In case of an Emergency call 713-792-2885
Emergency Coordinator: Director, Environmental Health & Safety, Sustainability and
Emergency Management, Linette Leadon
Cell Phone: (713) 294-7189
Business Phone: (713) 563-3752
Alternate Contact: Manager, Environmental Health & Safety, Michael Pokluda
Cell Phone: (713) 530-2246
Business Phone: (713) 794-4178
FACILITY NAME AND ADDRESS
FACILITY TCEQ SWR# AND EPA ID#
Additional Inquiries, Contact Environmental Health & Safety at (713) 792.2888

PART 3 - SPECIAL CONTRACT DOCUMENT REQUIREMENTS

3.01 GENERAL – NOT APPLICABLE

PART 4 - PRODUCTS

4.01 GENERAL - - NOT APPLICABLE

PART 5 - DOCUMENT REVISION HISTORY

Issue	Date	Revision Description	Revised By
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	20190524	Initial Adoption of Element	SME - Mike Pokluda, EH&S
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END OF ELEMENT Z4080