

NOTICE OF  
CHANGE

MIL-HDBK-1005/13  
NOTICE 1  
31 May 1996

MILITARY HANDBOOK

HAZARDOUS WASTE STORAGE FACILITIES

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1. THE FOLLOWING PAGES OF MIL-HDBK-1005/13 HAVE BEEN REVISED AND SUPERSEDE THE PAGES LISTED:

NEW PAGE	DATE	SUPERSEDED PAGE	DATE
vii	31 May 1996	vii	30 April 1987
viii	30 April 1987	No Change	
3	31 May 1996	3	30 April 1987
3a	31 May 1996	New Page	
4	30 April 1987	No Change	

2. RETAIN THIS NOTICE AND INSERT BEFORE TABLE OF CONTENTS.

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Section 2: DESIGN GUIDELINES

2.1 Site Selection. The selection of a site for the storage facility is an important part of the design effort. Guidelines for long-term storage facilities are given in 40 CFR 264.18. Site selection shall agree with the appropriate land use designation on the installation master plan.

2.1.1 Proximity to Critical Area. Provide a minimum buffer zone of 15 meters (50 feet) between the hazardous waste (HW) storage building and adjacent inhabited areas, facilities, and waterways. The buffer zone begins at the outer limit of the storage containers when outdoor storage is planned. Larger buffer zones are required for mission areas storing products such as petroleum, flammable or combustible liquids, and toxic materials. Refer to MIL-HDBK-1008B, Fire Protection for Facilities Engineering, Design, and Construction, the Uniform Building Code and the National Fire Protection Association (NFPA) standards for information on critical buffer zones. Evaluate the following factors when selecting a site for a HW storage facility: the quantity and type of hazardous material stored, storage retrieval system (e.g., racking, shelving, and stacking), automatic fire suppression systems, size of doors and windows and other openings on adjacent buildings, building construction materials (including fire walls and doors), the relative height of adjacent buildings, and other environmental conditions such as prevailing winds and topography. The type of materials stored over the life of the facility may change as the Navy mission changes. Most building and fire codes protect people and property from fire and explosion hazards but do not address health and environmental effects of an accidental release or long-term, low-level exposures. Conduct a risk assessment and appropriate hazard analysis for accidental releases and day-to-day operations at HW storage buildings. A more detailed analysis may be required for HW facilities located near waterways, inhabited areas, and non-industrial areas such as housing and child care centers. Use sound scientific and engineering principles up front during planning and design to identify and minimize hazards associated with the facility throughout its life cycle.

2.1.2 Ground Water Hydrological and Chemical Data. The designer shall determine variations in ground water elevation and the direction of ground water flow. These data shall be used by the designer to evaluate the damage potential of a spill or release and to ensure that the design is adequate to prevent

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spills from contaminating surface water and ground water. Ground water monitoring sufficient to establish background levels may be performed by the host installation.

2.1.3 Surface Water Hydrological Data. The site shall be above, or protected from, flooding. The flood plains are the lowland and relatively flat areas adjoining inland and coastal waters, including, at a minimum, those areas subject to a 1-percent or greater chance of flooding in any given year. The base flood plain shall be used to designate the 100-year flood plain, the 1-percent flooding probability. The critical action flood plain is the flood level for which even a slight chance for flooding is too great a hazard (43 CFR 6030). This level is defined as the 500-year flood plain, the 0.2-percent flooding probability. The surface water elevations for the flood plains can be obtained from the U.S. Army Corps of Engineers. The requirement for determining the flood plains is given in DOD 4270.1-M.

2.1.4 Soil Information. The engineering characteristics of the soil shall be determined at the locations of the facility and the access roads. The location exchange characteristics of the soils shall be determined at a minimum of two points on this site. This information will also be used to determine the capacity of the soil to retain pollutants in the event of a spill.

2.1.5 Geological Information. If the facility is located in a political jurisdiction listed in Appendix VI of paragraph 40, CFR 264.18, the facility shall not be within 61 meters (200 feet) of a fault that has had displacement in Holocene time (Holocene time refers to the most recent geological time period, including approximately the last 11,000 years). The 61 meters shall be measured along a direct line perpendicular to the plan of the fault intersecting the nearest extremity (e.g., fence line) of the facility to the fault line.