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## **1.0 MATERIAL AND SOLID WASTE MANAGEMENT**

- A. Materials and Solid Waste Management shall be provided by the MTLC as appropriate for the project in question (see PG 18-3-topic18, Table 18-1). These designs shall be in accordance with the relevant VA program and design guides PG 18-12 (See CFM TIL). Projects implementing AGV/AMR system may require exceptions to the program guide. See PG 18 10 AGV/AMR Design Manual for guidance on the design of AGV/AMR systems.
- B. Studies and designs must consider the entire campus and any off-campus facilities that require service.

## **2.0 SOLID WASTE MANAGEMENT DESIGN**

- A. The waste management system shall be designed to help maintain aseptic environments in the hospital, and to minimize or eliminate physical and infection hazards to patients, hospital staff, and the public, at the lowest Life Cycle Cost to the Government.
- B. A soiled/waste dock shall be provided that is separated from clean dock activities and comply with VA standards. Provide dock heights that match the height of most trucks using the facility with dock levelers to work with other heights.
- C. Consideration shall be given to waste disposal technologies including the use of Regulated Medical Waste Sterilization.
- D. Where justified the MTLC shall provide the studies, designs and specifications for recommended waste processing systems.

## **3.0 WASTE CATEGORIES**

- A. The categories of VA Facility waste are: Regulated Medical Waste (RMW or red bag), Hazardous Waste (HW), Recyclable Materials (RM), Sharps and general waste. Each of the categories of VA Facility waste requires individual design consideration of handling, storage, and disposal by the facility. In addition, regulatory requirements differ for each category, dependent upon the relative personnel and public hazards and environmental impact.

## **4.0 WASTE COLLECTION AND TRANSPORT**

- A. There are very substantial costs for the space and structural supports required for the installation of Pneumatic Trash and Linen systems. The Life Cycle Cost Analysis (LCCA) shall ensure that these costs are included as well as incidental costs such as waste bags, etc.
- B. The waste management system shall be fully coordinated with the transportation design to determine the most appropriate and safest means and routing of transport of wastes within the facility. Automatic or manual systems should be considered. The design shall avoid creating conditions that require or involve the double-handling of waste, especially RMW and HW.



- C. The preliminary design of the waste management system shall comply with all applicable Federal, state, and local codes and regulations, including: National Fire Protection Association; NFPA 82 – Standard on incinerators and Waste and Linen Handling Systems and Equipment.

Code of Federal Regulations:

- 40 CFR 261–265 - Identification and Listing of Hazardous Waste
  - 40 CFR Part 22 - Consolidated rules of practice Governing the Administrative Assessment of Civil Penalties and the Revocation/Termination or Suspension of Permits
  - 49 CFR 171–180 – Classification and Package Selection of Hazardous Materials
  - 29 CFR 1910.1200 – Hazardous Communication
  - 29 CFR 1910.1030 – Bloodborne Pathogens
  - 29 CFR 1910.134 – Respiratory Protection
- D. Guidelines and advisory standards available from the NFPA, the CDC, National Institute for Occupational Safety and Health (NIOSH), Department of Health and Human Services (HHS), and TJC shall be utilized as applicable and considered minimum criteria for facility design. The WMA shall be based on regulations and standards enforced by the local authority.

## **5.0 GRAVITY CHUTES / PNEUMATIC CHUTES**

- A. See PG 18-1, Section 14 91 82 Gravity Trash Chutes for VA Master Specifications. MTLIC shall update the specifications to ensure they are current and respond to the requirements of the project.
- B. Comply with NFPA 82.
- C. Consider gravity chutes either as standalone or integrated with horizontal pneumatic chutes for soiled linen and waste transportation in multistory institutions. When gravity chute systems are included, provide one chute system for soiled linen with a separate chute system for general waste. Single chute, dual purpose systems shall not be used.
- D. Separate charging areas, separate enclosure shafts, and separate discharge rooms are required, although they may be side by side. Separate collection areas for soiled linen and for solid waste shall be located near the loading dock.
- E. Provide chute access on user levels in separate room for each the Trash and the Linen Chutes with dimensions adequate for holding the collection cart, with room doors closed, while the attendant is charging the chute. Rooms must be compliant with PG 18-13.
- F. Size terminal rooms to accumulate the amount of materials dictated by the WMA. Minimum dimension shall allow accumulation of 24 hours of collected materials. Design



shall ensure that collected material does not block the chute or the entrance door or hinder the pickup operation.

- G. The minimum diameter of gravity trash chutes shall be 24 inches. Chutes must penetrate the roof of the building, be within a fire-rated enclosure, be provided with automatic sprinklers, and be discharged within a sprinkler protected fire-rated room. These requirements apply to soiled linen and solid waste gravity chutes.
- H. Vertically aligned charging doors of the same chute system shall be interlocked so that only one station can be charged at one time, thereby reducing the possibility of charges jamming within the chute. Provide gravity chutes with negative pressure, relative to the charging area, to eliminate aerosol discharge into the charging areas when charging doors are opened.
- I. Trash chutes are not to be used for hazardous wastes, medical wastes, cardboard boxes or recyclable materials. These are to be transported by suitable carts.

