

Regulation DD-11.0: Garbage Disposal

11.1 Garbage Collection Skip Industrial Facility

11.2 Garbage Room or Chutes and Collection Areas

11.3 Amount of Garbage (Calculation Criteria)

11.4 Standard Measurement for Garbage Room Areas

11.5 Specification for Garbage Chute

11.1 Garbage Collection Skip Industrial Facility

- 11.1.1 The 5 x 5 meters concreted area with three sides minimum 6" raised curb-stone for placing the Domestic Waste Garbage Collection Skip shall be provided within the plot at the industrial, warehouse and factory buildings. For special cases (e.g. Food establishments, further requirements may be advised depending on type/quantity of waste generated).
- 11.1.2 The area shall be directly accessible for safe maneuvering/access/ for the Garbage Collection Truck and shall be hard paved with suitable material.
- 11.1.3 If there is waste oil drums, empty paint or chemical cans/drums or solid waste (other than domestic waste which requires special approval from the Authority), the concreted storage area with 4 side raised curb stones away shall be provided.
- 11.1.4 Disposal of any kind of industrial waste (other than domestic waste) is not permitted to be disposed off in the garbage skip provided for the domestic waste.
- 11.1.5 All bulk industrial waste shall be disposed as per Free Zone, EHS and DM regulations through agencies approved by Free Zone, EHS and DM

11.2 Garbage Room or Chutes and Collection Areas

- 11.2.1 Garbage room shall be located in such away to facilitate removing the containers & transporting them to garbage collection vehicles.
- 11.2.2 Garbage room shall have a door with minimum width 1.8 meter or an overhead door leading to the loading facilities and made of non-rusting metal (aluminum), with louvers at the bottom or any other method of mechanical ventilation. Doors shall open upwards.
- 11.2.3 The minimum height of the garbage room shall not be less than 2.1 meters.
- 11.2.4 Garbage room shall be provided with adequate lighting & ventilation system.
- 11.2.5 All windows shall be air tight & protected by a metal mesh wire screen in order to prevent insects and rodents from getting into the room.
- 11.2.6 Floors & walls shall be tiled with ceramic tiles for easy cleaning.

- 11.2.7 Active chemical waste material, toxic material or liquids and/or any other hazardous material are not permitted to put in the garbage dumpsters or containers.
- 11.2.8 For buildings with more than three stories garbage chute shall be installed.
- 11.2.9 The material used for the garbage chute shall resist corrosion, prevent dampness, be non-combustible and the inner surface shall be smooth.
- 11.2.10 The minimum chute diameter shall be 0.6 meter, enclosed by a small room, not less than 0.9 x 0.9 square meters in size with an outward opening door, 0.8 meter minimum width and fitted with an automatic door closing mechanism. (for all typical floors)
- 11.2.11 For plot area exceeding 900 square meters, the garbage chute can be replaced by a small room 1.8 m x 1.2 m on each floor in addition to the main garbage room on the ground floor. The doors shall be 0.9 meter minimum width opening outwards and shall have an automatic door closing mechanism and mechanical ventilation.
- 11.2.12 The owner of the building or the authorized representative is responsible for the cleaning process of the building internally and externally and surrounding area up to the public road.
- 11.2.13 If the location of the chute is far from the road surrounding the plot, the garbage collection room shall be located near to the road, or alleyway in case of non existence of a road.
- 11.2.14 In buildings with an area below 180 square meters, garbage room 1.2 x 1.8 sq meters shall be provided on the ground floor level only and shall have mechanical ventilation with minimum door width 0.9 meter and an automatic door closing.

11.3 Amount of Garbage (Calculation Criteria)

- 11.3.1 Residential Use: An average of 12 kg each 100 square meter of occupied area.
- 11.3.2 Commercial Use / Shopping mall use; an average of 12 kg for each 100 square meter of occupied area.
- 11.3.4 Office Use: An average of 5 kg for each 140 square meter of occupied area.
- 11.3.5 Hotel Use: An average of 3 kg for each room, 5 kg for each suite and other areas according to the type of activities.

11.4 Standard Measurement for Garbage Room Areas

11.4.1 The garbage rooms shall accommodate all the dumpsters (containers) that are required, according to the standard measurements for containers as follows:

11.4.1.1 The measurement of a 1.1 cubic meter dumpster is 4.00 ft x 4.46ft or 122cm x 126cm.

11.4.1.2 The measurements of a 2.5 cubic meter dumpster is 4.86 x 6.70 square feet or 148 cm x 204 cm.

11.4.2 There should be 0.3 meter of clear space between the dumpsters and the wall of the garbage room.

11.4.3 There should be 0.3 meter of clear space between the dumpsters and another on all directions.

11.4.4 There should be a space of 0.6 meter between the dumpster and the door location.

11.4.5 The minimum internal corridor width of the garbage room shall be 1.2 meter.

11.4.6 The minimum height of the garbage room shall be 2.4 meters.

11.5 Specification for Garbage Chute

11.5.1 Chute should be manufacture from 1.5mm (16 Gauge) thickness steel type 30 SD and comply with BS1703.

11.5.2 Support at each floor should be with angle frame, complete with a steel champ band. The champ bands shall have vulcanized insert as sound absorber in isolator.

11.5.3 The hopper door should be provided at every floor of frame size, 30 liter capacity self closing type with rubber frame seal and provided with operating instruction fully made from stainless steel.

11.5.4 The hopper door should manufacture completely form stainless steel and shall be provided with indicator lights and electromagnetic locks to close off the chute during maintenance and cleaning (self sealing and self coloring with 1.5 hour fire rating).

11.5.5 Hopper door should be connected to the garbage duct with connecting element such duct is located at 15 cm from the external door frame.

- 11.5.6 Fire fighting sprinklers should be provided on all floors for protection in case of fire which shall operate automatically with spray heads at every floor.
- 11.5.7 The ground garbage floor room should be provided with an automatic fire cut off door at the bottom of the chute (stainless steel 100% and waterproof). The fire door shall be operated by fusible link, which shall break in the event of a fire breaking out in the refuse room.
- 11.5.8 In addition to the chute cleaning, an automatic brush cleaning system should be provided above the highest access door a cylindrical housing with replaceable stiff nylon brushes shall scrape and clean the internal surface as the move down and up the chute.
- 11.5.9 A control panel should be provided beside the brush access – housing door to operate the washing system and to control the electro–magnetic locks, exhaust fan operating and sprinklers.
- 11.5.10 Top part of the chute or vent should be 9" diameter and extend 4" above roof with a weathering cowl, complete with bird and insect screen and an exhaust fan, single phase, continuously rating.
- 11.5.11 All external surface of the chute should have an application of a special fire retardant paint of 2mm thick to eliminate sound and leakage and to prevent oxidization.
- 11.5.12 The chute should be insulated with min. 1" thick of fiberglass theramic insulation.
- 11.5.13 Garbage trolley containers should be provided complete with four wheels with breaks the capacity and numbers shall be compatible with municipality trash vehicle.
- 11.5.14 Garbage trolleys containers should be provided complete with four wheels the capacity and numbers as per drawings and to be compatible to municipality trash vehicle.