

SOLID WASTES

TYPES OF SOLID WASTES

Three Types:

1. Municipal Wastes:
 - a. Residential: (e.g., food wastes, rubbish, ashes)
 - b. Commercial: (e.g., food wastes, rubbish, ashes, demolitions, construction debris)
 - c. Open Areas: (e.g., special wastes, rubbish)
 - d. Treatment plant site: (e.g., residual sludges)
2. Industrial Wastes:

Wastes resulting from all industrial activities.

3. Hazardous Wastes: Hazardous wastes can be grouped in:
 - i. Chemicals
 - ii. Biological
 - iii. Radioactive
 - iv. Explosive
 - v. Flammable

Also a waste is classified as hazardous if it exhibits the following characteristics:

- a. Ignitability
- b. Corrosivity
- c. Reactivity
- d. Radioactivity
- e. Toxicity

PROPERTIES OF SOLID WASTES

1. Physical
 - a. Identification of individual components
 - b. Particle size
 - c. Moisture content
 - d. density
2. Chemical
 - a. Proximate analysis: (moisture, volatile matter, ash, fixed carbon)
 - b. Fusing point of ash
 - c. Ultimate analysis (C, H, O, S, N and ash)
 - d. Heating Value (Equ. 10.4)

SOLID WASTE MANAGEMENT

- a) Reduction in Raw Material Usage
- b) Reduction of Solid Waste Quantities
- c) Reuse (Recycling) of Solid Wastes Materials
- d) Energy Recovery