

MODERN ABATTOIR

A slaughter house with scientific and hygienic
slaughtering of animals



An abattoir is a site and structure where animals are slaughtered in order to produce animal products for human consumption

- **Cattle, buffalo, mutton, poultry, swine, and other animals are slaughtered to produce animal meat, and products are in **modern abattoir**.**
- **These are in accordance with the notification of the National Committee on Agricultural Commodity and Food Standards.**

Sections Of Abattoir



1. Animal reception area

- Here, animals are **roofed and protected** while being identified, handled, and sorted
- To avoid any injury, a 1.2m high **off-loading dock** for careful offloading of animals is provided
- Healthy animals are sent further to the lairage, while sick and injured animals are isolated

2. Lairage

- It is a facility where animals are rested for up to 24 hours to **recover from the physiological stress** caused during transportation



3. Slaughtering and Bleeding area

- An area where animals are **slaughtered** and kept until complete **bleeding** is done
- Following bleeding, flaying, evisceration, and inspection are performed
- Stations have platforms in appropriate positions and heights for operation



Flaying

The process of removing the hide or skin from an animal carcass

Evisceration

The removal of the internal organs of an animal

Inspection

For preventing and detecting public health hazards

4. Overhead rail dressing

- It ensures the basic requirements of **hygienic conditions** during slaughter and dressing associated with floor



5. Edible offals room

- Internal organs and **entrails** of a butchered animal are considered offals
- To avoid contamination, it is **located near the slaughter hall**, and offals are delivered through a chute-like provision



6. Inedible offals room

- Used for intestine and stomach
- Located adjacent to the flaying point and have a chute-like provision for dropping offals in the room

7. Hide and skin store

- Used to keep salted skin until shipment
- To extend the shelf life, a primary treatment with dry salt at the inner surface is practised

8. Cold room

- Fresh meat is chilled immediately after post-mortem examination
- It is kept at a constant temperature of **no more than 7°C** for carcasses and cuts or **3°C** for offal

Postmortem examination provides the necessary information for the scientific evaluation of pathological lesions relevant to the wholesomeness of meat





9. Veterinary office/laboratory

- To diagnose diseases and maintain overall sanitary standards

10. Personnel Facilities

- To maintain hygiene, washbasins, toilet rooms, changing rooms, and first-aid rooms should be available



11. Manure bay

- All refuse like dung and ingesta are retained here before removal
- It is located near an effluent treatment plant and requires pest and vermin-free conditions



Manure contains a variety of valuable, recyclable components, such as nutrients, organic matter, solids, energy, and fiber

12. Effluent treatment plant

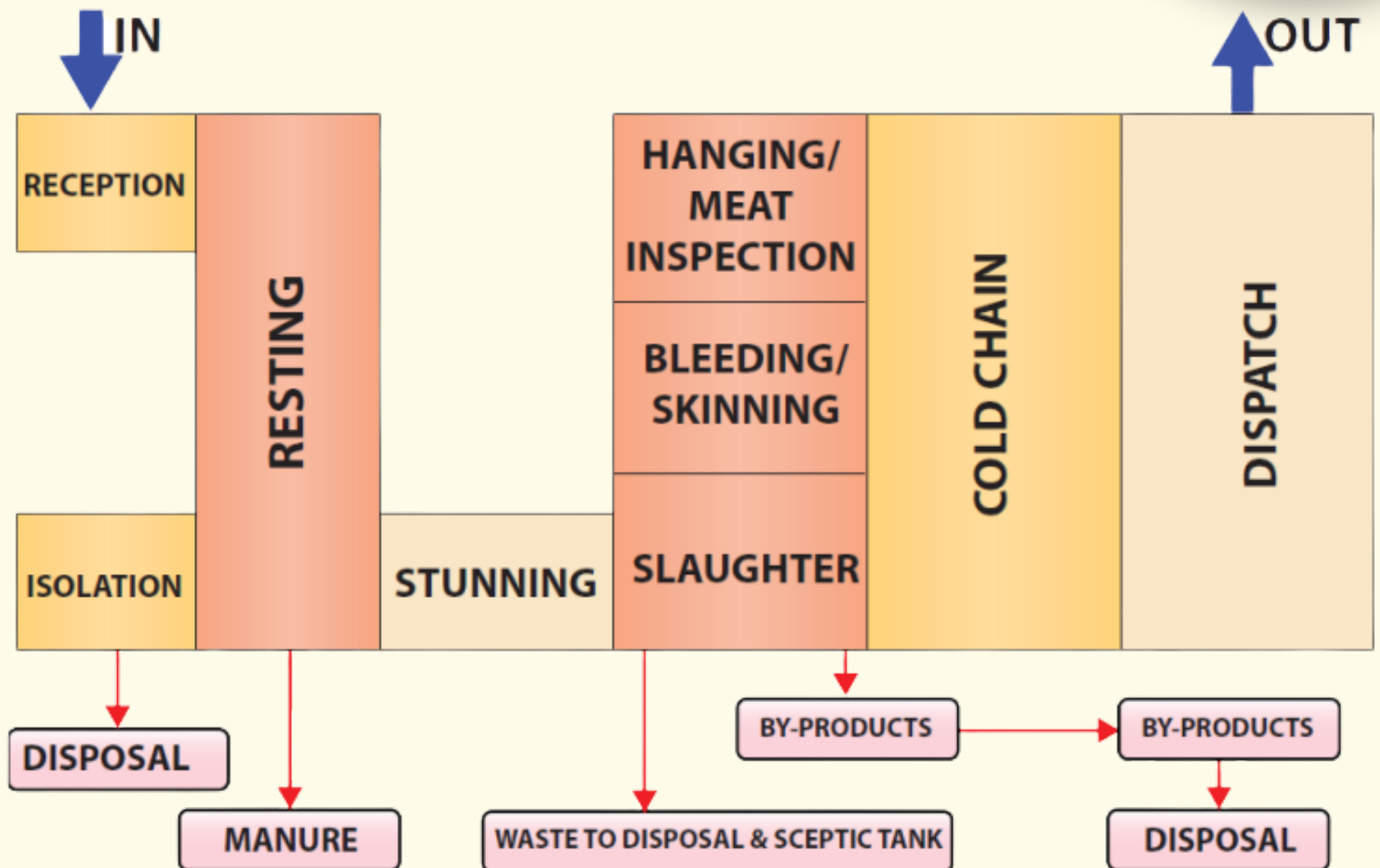
- Slaughterhouses produce large amounts of wastewater with a **high organic matter** load
- Thus, the treatment and **final disposal** of slaughterhouse wastewater is a public health necessity
- Every service abattoir must have an effluent treatment plant with sufficient capacity to treat liquid waste



Process Flowchart



Source: http://www.puntofocal.gov.ar/notific_otros_miembros/ken630_t.pdf



- **Stunning:** A technical method of rendering the animal immobile or unconscious, at the start of the slaughtering process



General architectural requirements



(Points which are considered before designing a Abattoir)

- Site location away from residential areas
- Maximum number of animals and the type of animals to be slaughtered per day
- Enough room for future growth. For slaughtering 500 sheep each day, an area of 3-4 acres is required
- Sufficient separation between the clean and unclean sections
- Drainage system with proper slope
- Good ventilation and exhaust



Hygienic Meat Production



- Hygienic meat production is possible if animals are slaughtered in a sanitary manner and post-slaughter contamination is controlled.
- Meat production practices in abattoir operations are based on:
 1. Good hygiene practices (GHP)
 2. Good manufacturing practices (GMP)
 3. Hazard analysis critical control point

These practises are critical for maintaining high hygiene standards and protecting consumer health



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