



**Botswana  
Meat  
Commission**  
Meat Perfection Defined

# **CLEANING AND DISINFECTING PROCESS FOR FOOD PROCESSING PLANTS**

## CLEANING AND DISINFECTING PROCESS FOR FOOD PROCESSING PLANTS

BMC has various procedures and instructions that outline and give guidance on how the plant and equipment are cleaned, detailing the chemicals used and their concentrations in line with statutory and legislative requirements. The objective of the cleaning and disinfecting process is to ensure that plant and equipment are clean and free from any contaminant that can affect product safety.

### SOME OF THE GUIDING DOCUMENTS

- Livestock and Meat Industries Act (2007) - (Meat Inspection and Control of Red Meat Abattoir) Regulation
- Regulation (EC) No 178/2002 - General principles and requirements of food law.
- Regulation (EC) 852/2004 – Hygiene of foodstuf
- The Manufacturer's Material Safety Data Sheets.
- Food hygiene management SABS 049 Ed. 3-(2001).
- Meat Safety Act No. 40 of 2000 - Red meat regulation.

### IMPORTANT FACTORS TO BE CONSIDERED

#### MATERIAL USED (COLOUR CODED):

Hard and soft brooms; squeegees; heavy-duty scourers; hose pipes; foaming machines; pressure washers; hand brush; cleaning trays etc. portable

#### CHEMICALS USED:

Powder chlorine based detergent Sanitizer- (50 to 85 grams per liter of water 5% to 8.5% solution); Liquid detergent sanitizer - (1 litre per 55 litres of water, 2% solution); Liquid detergent - (0.5 to 1 litre per 10 litres of water, 5 - 10% solution); Liquid hand washing detergent etc.

#### SAFETY REQUIREMENTS:

Rubber white gloves only used for cleaning the plant and handling the cleaning chemicals; eye protector; apron etc.

#### APPLICATION OF DETERGENTS AND PHYSICAL CLEANING. (extract from one of the instructions)

- Sprinkle solution of powder chlorine-based detergent sanitizer (50-85 grams per liter of water) on surfaces of interest. Soak with warm water, scrub with hard and soft brooms on stainless steel surfaces to remove the dirt.
- Using foaming machines apply 2 % solution liquid detergent sanitizer on tables, troughs, platform, hand basin, and other surfaces of interest. Scrub with blue brooms (floor) and white brooms (viscera belt, walls, table and stainless surfaces) to loosen and remove dirt.
- Apply 5-10% liquid detergent solution over surfaces, floors, walls, and equipment, scrub using soft brooms and scourers to remove stubborn soils.

Note: The detergent/sanitizers are given time after scrubbing before rinsing.

- Rinsing: use hot water at about 82oC or above to remove the suspended soil and detergent from all meat contact surfaces, floors, walls, and equipment.
- Disinfecting: apply a 2 % solution of liquid detergent sanitizer using foaming machines on to meat contact surfaces and equipment, floors and walls and leave the area sanitized overnight.

## **MONITORING AND VERIFICATION ACTIVITIES**

Cleaning and disinfection process is closely monitored, and daily records are maintained to ensure compliance to process control requirements. Independent verification is done by the Compliance Department to assure compliance to the set standards. The role of the Compliance department in BMC is to ensure the highest standard of product legality, safety, integrity, and quality to produce meat products and by-products which meet statutory, regulatory, and customer requirements.

## **QUALITY ASSURANCE PROGRAMS - LABORATORY TESTING**

Compliance department through laboratory testing provides quality assurance of materials used and process followed during cleaning and disinfection by:

- Testing of disinfectants used following Botswana standards (BOS 112)
- Testing of environmental and equipment swabs
- Testing of PPE (laundry swabs)
- Testing of food handlers (processing areas & canteens)
- Testing of process water

