



Sanitation Procedures for Packing and Cold Storage Facilities

Quality and Safety programs are distinct, but each can help the other



- ❖ Developing sanitation SOP's
- ❖ Places bacteria hide
- ❖ Choosing a cleanser
- ❖ Choosing a sanitizer
- ❖ Steps to sanitize
- ❖ Product flow

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Some Resources

<http://vric.ucdavis.edu>



<http://postharvest.ucdavis.edu>



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Guidelines for Controlling *Listeria monocytogenes* in Packing Facilities



Developing Sanitation SOPs

- **The Standard Operating Procedure (SOPs) for cleaning and sanitation should be documented, and should include:**
 - ❖ **Cleaning and sanitizing schedule**
 - ❖ **Name and type of cleansers to be used**
 - ❖ **Cleaning instructions, including a *cleanser – rinse - sanitizer sequence***

Common Bacteria-Harboring Points

These areas should be replaced, repaired or meticulously cleaned as appropriate

- ✓ Cracked hoses
- ✓ Hollow framework
- ✓ Poorly-maintained filters
- ✓ Standing water
- ✓ Open bearings
- ✓ Porous surfaces – ex. wood



Common Bacteria- Harboring Points




- **Condensate; especially walls and pipes over packing lines**
- **Damp insulation**
- **Rubber seals around doors**
- **Light switches**
- **Cleaning tools**
- **Trash cans**
- **Icemakers**

Choosing a Cleanser

The type of cleanser chosen should depend on the particular operation. Packer/Shippers should evaluate their cleaning needs and choose a cleanser with input from a reputable supplier

Choosing a Cleanser

Be sure to follow all label instructions

-  **Strong alkaline**
Heavy soils, not effective on mineral deposits
-  **Heavy duty alkaline**
For removal of oils/waxes, not effective on mineral deposits
-  **Mild alkaline**
Good for water softening and removal of light soil, not effective on mineral deposits

Choosing a Cleanser

- **Strong acid**
removal of mineral scale, encrusted soil
- **Solvent cleanser**
removes petroleum-based soil, grease
- **Synthetic detergents**
best on fats, oils and greases

Choosing a Sanitizer

Quaternary ammonium

- sanitize the cold room facility
- effective against *Listeria monocytogenes*

**A serious microbial concern
in a cold storage environment**

Sanitation Program

Routine Schedule for Cold Rooms

- **Weekly procedures should include the walls, ceiling, floors, drains, equipment**
- **Cooling units should be cleaned semi-annually according to the manufacturer's instructions**
- **Coolers should be emptied, cleaned, rinsed and sanitized at least once a season**

Sanitation Procedure

Cold Rooms

- **Clean drains with cleanser and brushes small enough to clean effectively**
- **Ceiling, walls and floors should be rinsed from top, downward**

Sanitation Procedure

- **Cold room should be emptied**
*equipment should be cleaned
outside of cold room facility*
- **Dry-clean by carefully sweeping floors**
- **Apply cleanser to walls, ceiling and floors**
- **Scrub area from top to bottom**
*use cleaning utensils that are
exclusively for cleaning the cold room*

Sanitation Procedure

Sanitizer should be applied to surfaces:

- Apply a high level sanitizer (800 ppm Quat)
- Let stand for 20 minutes
- Rinse
- Apply regular level sanitizer (200 ppm quat)
- Rinse
- Dry floors
- Clean and put away supplies

Sanitation Procedure Equipment

- ❖ **Clean and Sanitized**
outside the cold room
- ❖ **Food contact surfaces and utensils**
never touch the floor !!!!!

Sanitation Procedure Equipment

- Pre-rinse equipment
- Visually inspect equipment surfaces
- Apply appropriate cleanser
scrub from top, downward
- Do not allow cleanser to dry on surfaces
- Rinse from top, downward

Sanitation Procedure Equipment

- Visually inspect equipment surfaces
- Sanitize surfaces

apply high level sanitizer (800 ppm quat)

- Let stand for 20 minutes
- Rinse – potable water
- Secondary sanitizer

apply regular level sanitizer (200 ppm quat)

- Rinse – potable water

Sanitation Procedure

Final Steps

- **Clean and put away supplies**
- **Document cleaning**
- **Periodic QA inspection/swabs**
- **Training**

Special Issues

Food Safety

- **Product flow should be linear**
- **Don't mix packed and ungraded**
- **No access from field to catwalks**
- **Bin and tote sanitation**

Product Flow Should Be Linear



Field **Receiving** **Cleaning** **Grading** **Storage**
Dumping **Sorting** **Cooling** **Shipping**
 Cooling

**Unwashed and Washed/Packed Product
Should Never Cross Paths in a Facility**