

# **COOLING AND COLD STORAGE SECTION**

**SECTION A**  
**TABLE OF CONTENTS**

Page

<b>Hazard Control Program Overview .....</b>	<b>1</b>
Introduction.....	1
<b>Cooling, Cold Storage and Transportation GAP Plan.....</b>	<b>3</b>
Figure 1. Flow Chart .....	3
Table 1. Hazard Control & GAP Plan.....	4
<b>Monitoring Logs.....</b>	<b>7</b>
Table 2. Post-cooling Temperature Log .....	7
Table 3. Hydro-vacuum & Hydro-cooler Chlorine Log .....	8
Table 4. Cold Storage Temperature Log.....	9
Table 5. Refrigerated Carrier Condition Log.....	10
Table 6. Notice of Unusual Occurrence and Correction.....	11
Table 7. Thermometer Calibration Log .....	12
Table 8. Daily Inspection.....	13
Table 9. Supervisor Notification Log .....	15
<b>Cooler and Cold Storage Testing Program .....</b>	<b>16</b>
Table 10. Water Sampling Log - Cooler, Ice and Cold Storage Waters.....	16

# HAZARD CONTROL PROGRAM OVERVIEW

## INTRODUCTION

At Fresh Kist Produce, LLC. our Food Safety philosophy is simple; “We put Food Safety first.” Food Safety is the most important task of all our operations. All of our operations, actions and tasks will, in some way, involve Food Safety.

Food Safety is an integral part of our entire operation. It includes growing, harvesting, warehousing, packing and shipping. It also includes non-production items such as training of employees and training materials.

Food Safety is not a static program. It is dynamic in nature. Each and every meeting discusses Food Safety and each and every management action ensures that Food Safety not only fits comfortably into the overall objective of Fresh Kist Produce, LLC., but that it is also understood and easily executed by each and every employee of Fresh Kist Produce, LLC.

The goal of the Grower Shipper Company Hazard Control program is to institute a proactive food safety system for its growing and cooling operation whereby any potential product hazards are anticipated and controlled from product reception through distribution. Food safety and quality control is the responsibility of all the employees of Fresh Kist Produce, LLC. and affiliated service and product providers. Management has provided the tools and established guidelines for producing safe, wholesome, quality products. All employees are accountable for consistently maintaining these standards.

The Hazard Control program has been established with the help of the company officers. Although the burden of food safety and quality control is in the hands of management and supervisors, all employees serve as inspectors when product moves through their area. Fresh Kist Produce, LLC.’s employees are authorized to hold or reject product found to be out of compliance, subject to the evaluation and final approval of authorized management.

Fresh Kist Produce, LLC. incorporates Good Agricultural Practices and Good Manufacturing Practices as a system. This concept is based on teamwork, continuous operation improvement, and three-way communication between management, sales and production employees. Quality improvement teams have been organized to address issues of finished product checks, working conditions, waste control, equipment maintenance, operation efficiency, safety in facilities, sanitation, employee personal hygiene, etc., and to encourage all employees to utilize their talents in helping to maintain and/or improve product quality. The management at Fresh Kist Produce, LLC. believes that these measures will ensure that the finished product meets the highest standard of quality for the customer’s end use.

At Fresh Kist Produce, LLC., GAP and GMP are everyone's responsibility. Site sanitation and personnel hygiene are an integral part of each employee's responsibility. Employee personal hygiene starts with management. Management has the responsibility for:

1. Providing and maintaining a safe and clean working environment, safe equipment and safe tools.
2. Establishing and enforcing work rules and conduct.
3. Developing and conducting a continuing education program to promote safe and sanitary work habits.

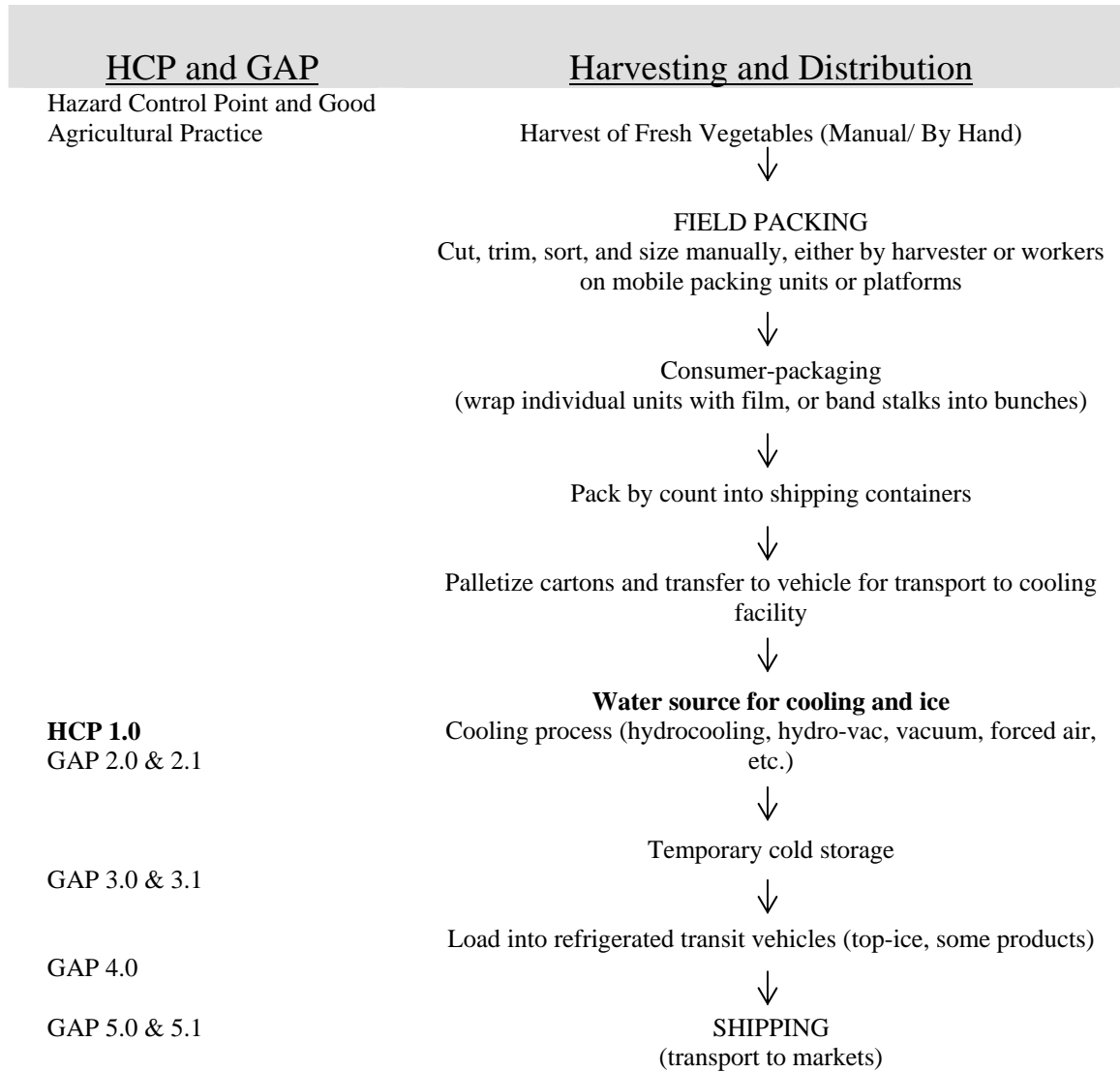
Although Fresh Kist Produce, LLC. is responsible for the conduct and practices of employees, following are some of the responsibilities assigned to employees at the time employment begins:

1. Unhealthy conditions such as respiratory or gastrointestinal complications (e.g., head cold, sinus infection, bronchial or lung disorders, diarrhea, etc.) should be reported to the supervisor.
2. Injuries including cuts, burns, boils, and skin eruptions, should be reported to the supervisor.
3. Personal cleanliness that should be practiced includes daily bathing, hair washing at least twice a week, daily changing of clothing, and maintaining clean hands and fingernails.
4. Employees should be instructed to inform the supervisor when the bathroom facilities' water, soap or towels need to be replenished.
5. During food handling, habits such as spitting, scratching the head or other body parts should be prohibited.
6. The mouth and nose should be covered when coughing or sneezing.
7. The hands should be washed after visiting the toilet, using a handkerchief, smoking, eating, handling soiled utensils or articles, handling money, etc.

Personal hygiene is a basic step Fresh Kist Produce, LLC. requires to ensure the production of safe and wholesome fresh produce. Fresh Kist Produce, LLC. will emphasize hygiene practices of employees through these protocols:

1. Employees will be provided training in raw product handling and personal hygiene.
2. A regular inspection of employees and their work habits will be conducted. Violations of defined personal hygiene practices will be handled as disciplinary violations.

**Figure 1. Cooling, Cold Storage and Transportation Flow Chart.**



**Table 1. Hazard Control Plan – Cooling, Cold Storage and Transportation**

<p align="center"><b>FRESH KIST PRODUCE, LLC. COOLER AND COLD STORAGE HAZARD CONTROL PLAN</b></p>								
Hazard Control Point & GAP	Hazard to be controlled Biological “B” Chemical “C” Physical “P”	Control Procedures		Critical Limits	Actions to be taken if deviations occurs	Responsible Individual(s)	Documentation	Verification
		Procedure	Frequency					
HCP 1.0  Water source for cooling & ice production	Potential microbial or chemical contamination	Microbial & chemical analyses	Wells and municipal water sources annually	Potable standards (i.e. negative <i>E. coli</i> , <100 CFU/ml Coliforms, etc.)	Stop use of contaminated water, use furrow or drip irrigation until contamination is corrected or access alternative source. Determine and address source of contamination.	Cooler Foreman	Maintain all analytical results	
GAP 2.0 Incoming product review	Foreign materials-products in process “P”	Visual inspection	Inspection of each load		Remove all metals, plastics, paper, etc. Rinse mud and dirt from the produce. Check product, evaluate, release or reject.		Foreign Material Log  Non-conformance Log	Shift Supervisor Daily
GAP 2.1 Cooling efficacy	Raw product temperature- After Hydro Cooling, Hydro Vacuum, Pressure Cooling “B”	Temp. probe	Each lot		Determine and correct temperature deviation (i.e. 33°F to 42°F). Re-cool raw product, evaluate and release or disposition.		Equipment Temp. Log  Non-conformance Log	Shift Supervisor Daily
GAP 3.0 Chlorination	Hydro vacuum cooler, Hydro Cooler	Chlorine <sup>1</sup> test kit	Every 4 loads or every		> 35 PPM, add water, test < 25 PPM, add chlorine, retest		Equipment Temp Log	Shift Supervisor Daily

1 A growing list of alternatives to Chlorine are being reviewed by the FDA (i.e. peroxiacidic acid, ozone, new copper formulations, etc.).

**FRESH KIST PRODUCE, LLC. COOLER AND COLD STORAGE  
HAZARD CONTROL PLAN**

Hazard Control Point & GAP	Hazard to be controlled Biological “B” Chemical “C” Physical “P”	Control Procedures		Critical Limits	Actions to be taken if deviations occurs	Responsible Individual(s)	Documentation	Verification
		Procedure	Frequency					
system review	free chlorine level “B”		2 hours		If <25 or >35 PPM correct the chlorine level to within critical limits, rework, evaluate, release or deposition.		Non-conformance Log	
GAP 4.0 Cold storage temperature control	Storage room temperature “B”	Temperature probe or wall thermometer	Twice daily		Correct refrigeration (33°F to 38°F) problem and isolate product to last check. Evaluate product temperature and release or disposition.	Refrigeration Engineer	Temperature Log  Non-conformance Log.	Shift Supervisor Daily
GAP 4.1 Pest control program	Contamination from rodents, birds, insects, etc. “B & P”	Visual monitoring by third party	Weekly		Avoid conditions that encourage nesting, etc. (i.e. remove all trash including produce waste, remove cover vegetation.			
GAP 5.0 Transportation container temp. review	Refrigerated carrier temperature “B”	Temperature probe or thermometer	Each truck before loading		Fix problem and retest (34°F to 42°F); load product when carrier is pre-cooled within critical limits, or request carrier replacement.	Shipping Department	Refrigerated Carrier Temperature Log  Non-conformance	Shift Supervisor Daily

**FRESH KIST PRODUCE, LLC. COOLER AND COLD STORAGE  
HAZARD CONTROL PLAN**

Hazard Control Point & GAP	Hazard to be controlled Biological "B" Chemical "C" Physical "P"	Control Procedures		Critical Limits	Actions to be taken if deviations occurs	Responsible Individual(s)	Documentation	Verification
		Procedure	Frequency					
							Log	
GAP 5.1 Transportation container sanitation review	Refrigerated carrier sanitation "B & C"	Review carrier logs if available. Olfactory (visual / smell) inspection for contamination	Each truck before loading	.	Notify supervisor, evaluate, release, clean, or request clean replacement.	Fork lift driver	Refrigerated Carrier Trailer Condition (Sanitation) Log  Non-conformance Log	Shift Supervisor Daily













**Table 8. Daily Pre-Inspection**

<b>FRESH KIST PRODUCE, LLC.</b>							
<b>DAILY INSPECTION LOG</b>							
<b>The individual performing the pre-inspection must initial the appropriate day box for each item completed. Supervisor must verify the pre-inspection for the day</b>							
<b>Week of :</b>	<b>Sun</b>	<b>Mon</b>	<b>Tue</b>	<b>Wed</b>	<b>Thur</b>	<b>Fri</b>	<b>Sat</b>
<b>Shipping Cooler</b>							
Floors Swept, Free of Trash, Produce Debris, Broken Pallets, & Broken-Down Boxes							
Trash Cans Emptied & Clean							
<b>Product Coolers</b>							
Floors Clean, Free of Mud, Trash, & Produce Debris							
Walls, Ceilings, & Fans Clean and Free of Mold							
Inspection Aisle Maintained Around Cooler Perimeter							
Fly Curtains Clean and Intac							
Walls Free of Holes & Cracks							
<b>Maintenance Shop</b>							
Floors Clean & Free of Loose Equipment							
Walls & Ceilings Free of Dirt & Cobwebs							
Rodent Stations Clear							
Trash Cans Emptied & Cleaned							
<b>Sanitation Supply Storage Area</b>							
Floors Clean & Free of Trash							
Walls & Ceilings Clean & Free of Cobwebs							
All Sanitation Equipment Cleaned & Properly Stored							
Employee Boots, Gloves, Goggles, Aprons, etc. Properly Stored							
<b>Restrooms</b>							
Floors Clean and Free of Trash							
Sinks, Toilets, & Urinals Clean, & Working Properly							
Mirrors Clean and Intact							
Soap and Hand Towel Dispensers Full							

<b>FRESH KIST PRODUCE, LLC.</b>							
<b>DAILY INSPECTION LOG</b>							
<b>The individual performing the pre-inspection must initial the appropriate day box for each item completed. Supervisor must verify the pre-inspection for the day</b>							
<b>Week of :</b>	<b>Sun</b>	<b>Mon</b>	<b>Tue</b>	<b>Wed</b>	<b>Thur</b>	<b>Fri</b>	<b>Sat</b>
Trash Cans Emptied & Cleaned							
Toilet Tissue in Holders Only							
Floor Drains Cleaned							
<b>Break-Room</b>							
Trash Cans Emptied & Clean							
Tables Clean							
Floors Clean & Free of Trash & Debris							
Rodent Stations Clear							
Walls & Ceilings Clean & Free of Cobwebs							
<b>Grounds &amp; Dumpster Area Adjacent to Facility</b>							
Parking Lot Near Facility Free of Trash and Potholes							
Rodent Stations Clear							
Grounds Near Facility Free of Trash and Cigarette Butts							
Dumpster Area Free of Trash							
Dumpster Intact & Not Leaking							
No Areas of Standing Water Near Facility							
Dock Area Free of Trash and Bird Activity							
<b>Supervisor Verification</b>							
Immediately notify area supervisors of any problems seen during the inspection. Problems should be corrected as soon as possible. Corrective action should be detailed and signed off by supervisor.							

**Table 9. Supervisor Notification Log**

<b>FRESH KIST PRODUCE, LLC.</b>
<b>SUPERVISOR NOTIFICATION LOG</b>





**SECTION B**  
**TABLE OF CONTENTS**

	Page
<b>Best Management Practices for Control of Microbial Hazards.....</b>	<b>1</b>
Cooling Operations and Cold Storage .....	1
Microbial Hazards Checklist.....	2
<b>Fresh Kist Produce, LLC. Employee Education Outline – Cooling and Cold Storage.....</b>	<b>4</b>
Employee Hygiene.....	4
Sanitary Practices.....	4
Table 11. Employee Education and Training Log .....	6

# **BEST MANAGEMENT PRACTICES FOR CONTROL OF MICROBIAL HAZARDS**

## **Cooling Operations and Cold Storage**

Good employee hygiene is very important. Employees training, health monitoring and constant monitoring of sanitary practices (hand washing, personal hygiene) are an important part in reducing product contamination by employees.

A pest-control program should be in place to reduce, as much as possible, the risk of contamination by rodents or other animals. Product and/or product remnants will attract pests; therefore, the daily cleaning of the facility to eliminate the attractive food source will help in reducing pest activity.

In plant cooling facilities could have the potential for developing microbial growth on walls, tunnels, ceilings, floors, doors, or drains. Scheduled wash down and/or sanitizing of the facility may reduce the potential for microbial growth. The cooling system should be monitored and cleaned as necessary depending on the type of system.

Maintenance of proper holding room temperature could affect product quality, and could be a factor in reducing microbial growth. Temperature should be monitored in order to insure maintenance at established product temperature parameters.

The following checklist summarizes the areas that offer the best opportunities for control and/or reduction of microbial contamination.

**Table x. Microbial Contamination Prevention Checklist**

		<u>OK</u>	<u>Needs Attention</u>
<b>A. Product Wash Water</b>			
1.	Is the water supplied from a clean source?	_____	_____
2.	If chlorinated water is used, is the chlorine level of the water maintained at specified levels?	_____	_____
3.	Is re-circulated water changed on a regular basis?	_____	_____
4.	Is there a water change log and are there pH and chlorine test records?	_____	_____
<b>B. Employees</b>			
1.	Are employees trained in good sanitary practices?	_____	_____
2.	Are employees monitored for obvious health problems?	_____	_____
3.	Are employees monitored to ensure good sanitary practices?	_____	_____
4.	Are toilet facilities maintained in clean and sanitary condition?	_____	_____
5.	Are rest rooms/wash facilities supplied with antibacterial soap and disposable hand drying towels?	_____	_____
6.	Are there employee-training materials and are they utilized?	_____	_____
7.	Is there a cleaning crew checklist?	_____	_____
<b>C. Pest Control</b>			
1.	Is there evidence of pest populations?	_____	_____
2.	Is there product residue that has not been cleaned up that may be attracting the pests?	_____	_____
3.	Have all potential nesting or hiding places for pests been eliminated and/or cleaned?	_____	_____
1.	Is there a pest control log	_____	_____
<b>D. Cooling Facility and System</b>			
1.	Can the temperature be maintained at the proper levels?	_____	_____
2.	Are evaporators, drains, drain lines, and reservoirs cleaned on a scheduled basis?	_____	_____
2.	Are walls, floors, and tunnels cleaned on a scheduled basis?	_____	_____
4.	Is there any evidence of dirt, mold or slime formation on the cases, cages, fans or in the drain pans?	_____	_____

5. Is there a cleaning procedure manual? \_\_\_\_\_

6. Is there a training manual? \_\_\_\_\_

7. Is there a cleaning crew checklist? \_\_\_\_\_

**E. Packing Supplies**

1. Are supplies clean and in good working condition? \_\_\_\_\_

2. Is there a scheduled replacement of worn or soiled items? \_\_\_\_\_

3. Is there a supply of replacement items in stock? \_\_\_\_\_

4. Is there a daily crew checklist? \_\_\_\_\_

**F. Product Temperature Maintenance**

1. Is the cold room equipment and system capable of maintaining the finished product at proper temperatures? \_\_\_\_\_

2. Is the product temperature at the proper level? \_\_\_\_\_

3. Is there a cold room temperature log? \_\_\_\_\_

# **Fresh Kist Produce, LLC.'s Employee Educational Outline**

**for**

## **Cooling and Cold Storage Employees**

1. All growers/harvesters shall have a written employee sanitation and hygiene program and shall maintain a continuous documented training program for all cooling facility/cold storage employees.
2. Produce handlers and supervisors should be trained on the proper food protection principles and should be informed of the dangers of poor personal hygiene and unsanitary practices.

### **DISEASE CONTROL**

Any person who, by medical examination is shown to have or appears to have, an illness, open lesion, including boils, sores, or infected wound, or any other abnormal source of microbial contamination by which there is reasonable possibility of food, food-contact surfaces, or food packaging materials being contaminated, shall be excluded from any operations which may be expected to result in such contamination until the condition is corrected. Personnel shall be instructed to report such conditions to their supervisors.

### **CLEANLINESS**

All persons working in direct contact with Fresh Kist Produce, LLC. produce, food-contact surfaces, and packaging materials shall comply with hygiene practices while on duty to the extent necessary to protect the produce against contamination. The methods for maintaining cleanliness include but are not limited to:

1. Wearing outer garments suitable to the operation in a manner that protects against the contamination of food, food-contact surfaces, or food packaging materials.
2. Maintaining adequate personal cleanliness.
3. Washing hands thoroughly (and sanitizing if necessary to protect against contamination with undesirable organisms) in an adequate hand washing facility before beginning work, after each absence from the work station, and at **ANY** other time when the hands may have become soiled or contaminated.
4. Removing all unsecured jewelry and other objects that might fall into the product, equipment and containers, and removing hand jewelry that cannot be adequately sanitized during periods in which food is manipulated by hand. If such hand jewelry cannot be removed, then gloves made of an impermeable material (such as rubber) shall be worn.
5. Maintaining gloves in an intact, clean, and sanitary condition. The gloves should be of an impermeable material.
6. Wearing, where appropriate and in an effective manner, hairnets, headbands, caps, beard covers, or other effective hair restraints.
7. Storing clothing or other personal belongings in areas other than where food is exposed or where equipment or utensils are washed.
8. Confining eating food, chewing gum, drinking beverages, or using tobacco to areas other than where food may be exposed or where equipment or utensils are washed.

9. Taking any other necessary precautions to protect against contamination of food, food contact surfaces, or food packaging materials with microorganisms or foreign substances including, but not limited to, perspiration, hair, cosmetics, tobacco, chemicals and medications applied to the skin.

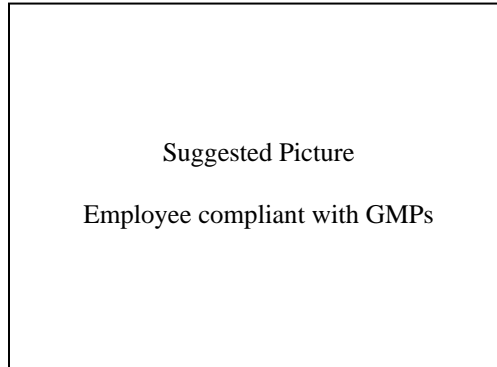


Fig.x Proper clothing and product handling are but two of the issues addressed during Fresh Kist Produce, LLC.' employee educational

#### EDUCATION AND TRAINING

Food handlers and supervisors should receive appropriate training in proper food handling techniques and food protection principles and should be informed of the danger of poor personal hygiene and unsanitary practices.

#### OTHER SOURCES OF INFORMATION

Reference the Food Safety Initiative Voluntary Guidelines for Minimizing Microbial Contamination in Fresh Produce. See Sections #2 Field to Pre-cooling Guidelines and #3 Pre-cooling and Shipping Facility Guidelines.

**Table 11. Employee Education & Training Log**

<b>FRESH KIST PRODUCE, LLC.</b>	
<b>EMPLOYEE EDUCATION AND TRAINING LOG COOLER</b>	
<b>Date: Trainer: The following employees were present:</b>	<b>Topic: Materials:</b>
1	21
2	22
3	23
4	24
6	25
6	26
7	27
8	28
9	29
10	30
11	31
12	32
13	33
14	34
15	35
16	36
17	37
18	38
19	39
20	40

## SECTION C

### TABLE OF CONTENTS

	Page
<b>Cooling Equipment and Cold Storage Rooms Sanitation.....</b>	<b>1</b>
General Sanitation (Cleaning) Instructions .....	1
Sanitation Standard Operating Procedures.....	2
Forklifts.....	3
Vacuum Tube, Hydro Vacuum Tube, Hydro Cooler, Ice Injector .....	4
Pressure Cooler .....	6
Cooler Room Refrigeration Units.....	8
Pallet Racking System .....	9
Facility Floors .....	10
Facility Walls .....	11
Facility Floor Drains.....	12
Ceiling, Overhead Lamps and Pipes.....	13
Cold Holding and Storage Areas .....	14
Dock Areas.....	16
Facility Bathrooms.....	18
Employee Eating Areas.....	19
Material Data Safety Sheets .....	21
Table 12. Master sanitation schedule – Cooling facility and equipment. ....	22

# COOLING EQUIPMENT AND COLD STORAGE ROOMS SANITATION

## GENERAL SANITATION (CLEANING) INSTRUCTIONS

Cleaning procedures must be done consecutively. It is very important that the work flows from the top (ceilings, etc.) down to the floor. This will prevent food and/or soiled water from splashing onto equipment or surfaces that have already been cleaned before the work is started on areas below. Floors and drains are to be sanitized at the very end of the sanitizing process.

It is imperative that all operations, in adjacent or nearby areas, be sequenced and timed so all major stages of the sanitation process can be completed at the same time. These would include dry cleaning, rinsing, foaming with a detergent, rinsing, and sanitizing. Poor results will be the reward if these operations compete with or cancel each other. For example, if one worker completes a sanitized step and an adjacent worker washes off the sanitizer, the first worker's effort is wasted.

Maintenance of the equipment is to be completed prior to beginning the sanitation process. If maintenance must be completed after the equipment has been sanitized, the equipment must be re-cleaned and re-sanitized. When lubricating a piece of equipment, avoid applying excessive amounts of lubricating grease. Excessive grease must be removed and the area wiped clean.

Do not splash water from the drains onto the equipment. Many undesirable forms of bacteria and filth may be present in the drains.

## SANITATION CHEMICALS

The chemicals used for sanitation are to be treated with respect at all times. Become familiar with the labels of the products to be handled. Handling means opening or closing, mixing, loading, and/or applying the concentrate, or working solutions of the product(s). Strictly adhere to all precautionary statements and mixing instructions. You need to protect yourself, the food, the equipment, and the packaging materials when you are using these products.

### *Protect Yourself*

- Familiarize yourself with the product's Material Safety Data Sheets (MSDS). When handling these materials, wear appropriate safety equipment and clothing as required by the product label(s).

### *Protect the Food*

- Do not store your raw ingredients or packing materials together with cleaning or sanitizing products. Protect the food and packing materials from exposure to these chemicals.

### *Protect the equipment*

- Use the correct chemical(s) for the job at hand. Using an incorrect product(s) may etch or otherwise damage the equipment finish.

## CLEANING AND SANITIZING

The objective in cleaning is to remove all the food and/or food residues, so that the sanitizer can be free to destroy microorganisms found on the food contact surfaces and in the facility environment. Good cleaning includes the following:

1. Placement of waterproof coverings over electrical motors, electrical boxes, etc.
2. Removal of as much dry residue as possible by dry cleaning.
3. Rinsing equipment from the top down.
4. Foam with the correct detergent. For ceilings, overhead fixtures, walls, etc. begin at the top and work downward. For equipment, begin at the bottom and work upward.
5. Do not allow the detergent foam to dry on the equipment.
6. Rinse with water beginning at the top and working downward.
7. Inspect your areas for any food particles or remaining soil residues. Re-clean any areas where food or soil remnants are identified.
8. Apply the correct sanitizer. For ceilings, overhead fixtures, walls, etc. begin at the top and work downward. For equipment, begin at the bottom and work upward.
9. Remove the coverings, which were placed over the electrical motors, electrical boxes, etc.

# SANITATION STANDARD OPERATING PROCEDURES

## Forklifts

### Safety Precautions:

1. Always wear appropriate protective clothing whenever handling the cleaning and/or sanitizing products.
2. Ensure that the equipment is locked out to a zero mechanical state prior to beginning work or cleaning. Unplug any electrical service cords.
3. Follow the chemical label instructions. Do not mix chemicals without appropriate supervisor authorization.
4. Wear goggles when using compressed air.

### **Chemicals required for cleaning and sanitation of the forklifts.**

Category	Type	Formulation
Rinse	Potable Water	
Cleaner	Foaming Degreaser Detergent	Per Label Instructions
Sanitizer	Quaternary Ammonia	Per Label Instructions

### Recommended Cleaning Procedure:

#### MONTHLY

- Turn the Key to the OFF position. Set the Hand Brake to the ON position.
- Cover the control panel with a plastic covering to ensure no splash of water effects electrical components.
- Remove any accumulated produce residue from the Forklift by dry cleaning.
- Rinse the Forklift.
- Use cleaner and/or degreaser to remove heavy soils.
- Rinse the Forklift
- Remove any plastic coverings.
- Wipe by hand all areas covered by plastic.
- Apply Sanitizer solution.
- Allow to air dry.

# SANITATION STANDARD OPERATING PROCEDURES

## Vacuum Tube, Hydro Vacuum Tube, Hydro Cooler, Ice Injector

### Safety Precautions:

1. Always wear appropriate protective clothing whenever handling the cleaning and/or sanitizing products.
2. Ensure that the equipment is locked out to a zero mechanical state prior to beginning work or cleaning. Unplug any electrical service cords.
3. Follow the chemical label instructions. Do not mix chemicals without appropriate supervisor authorization.
4. Wear goggles when using compressed air.

### **Chemicals required for cleaning and sanitation of the vacuum tube, hydro vacuum tube, hydro cooler, ice injector, etc.**

Category	Type	Product Name	Formulation
Rinse	Potable Water		
Cleaner	Chlorinated Alkaline Detergent		Per Label Instructions
Sanitizer	Quaternary Ammonia		Per Label Instructions

### Recommended Cleaning Procedure:

#### BETWEEN LOADS

- Electrically Lock Out controls to ensure system cannot be started for any level of operation.
- Remove any debris that may have accumulated in the retort.

#### WEEKLY

- Electrically Lock Out controls to ensure system cannot be started for any level of operation.
- Drain tank basin and leave the drain valve open.
- Remove any accumulated debris and produce by dry cleaning.
- Rinse both the upper and lower side of the shuttles. Also, rinse between the shuttle and the supporting framework. Rinse the supporting framework.
- Rinse interior of chamber and basin with LOW-pressure rinse.
- Close the drain valve and allow to air dry.

#### MONTHLY

- Electrically Lock Out controls to ensure system cannot be started for any level of operation.
- Drain tank basin and leave the drain valve open.
- Remove any accumulated debris and produce by dry cleaning.
- Rinse both the upper and lower side of the shuttles. Also, rinse between the shuttle and the supporting framework. Rinse the supporting framework.
- Rinse interior of chamber and basin with LOW-pressure rinse.
- Soap, rinse and sanitize both the upper and the lower sides of the shuttle, including the supporting framework and the interior of the chamber.
- Soap, rinse and sanitize both the upper and the lower sides of the condensate drip pan, including the supporting framework.

- Close the drain valve and allow to air dry.

Note: Brushes and any other cleaning utensils used to clean the cooling systems or supporting framework must be identified for this use and stored separately from brushes, or any other cleaning utensil used to clean the floors, bathrooms, etc.

# SANITATION STANDARD OPERATING PROCEDURES

## Pressure Cooler

### Safety Precautions:

1. Always wear appropriate protective clothing whenever handling the cleaning and/or sanitizing products.
2. Ensure that the equipment is locked out to a zero mechanical state prior to beginning work or cleaning. Unplug any electrical service cords.
3. Follow the chemical label instructions. Do not mix chemicals without appropriate supervisor authorization.
4. Wear goggles when using compressed air.

### **Chemicals required for cleaning and sanitation of the pressure cooler.**

Category	Type	Product Name	Formulation
Rinse	Potable Water		
Cleaner	Chlorinated Alkaline Detergent		Per Label Instructions
Sanitizer	Quaternary Ammonia		Per Label Instructions

### Recommended Cleaning Procedure:

#### WEEKLY

- Disconnect the power to the refrigeration unit.
- Remove all materials from the area to be cleaned.
- Pick up all trash from floors and remove to trash can. Remove trash can to dumpster.
- Place a plastic covering over the refrigeration unit electrical motor and over the cooler chamber temperature-sensing device.
- Remove fan guards as necessary.
- Check the condensate drain pan to ensure that it is open and able to drain the pan. Remove any debris that has accumulated in the pan.
- Using low-pressure water ONLY, rinse interior of refrigeration unit, the coils, the fan guards, and the catch pan of any soil buildup. Wash out drains.
- Using low-pressure water ONLY, rinse both sides of the covering tarp.
- Apply cleaner to all surface areas.
- Rinse all surface areas.
  - Remove plastic coverings.
  - Reinstall fan guards and condensate catch pan on the refrigeration unit.

#### MONTHLY

- Disconnect the power to the refrigeration unit.
- Remove all materials from the area to be cleaned.
- Pick up all trash from floors and remove to trash can. Remove trash can to dumpster.
- Place a plastic covering over the refrigeration unit electrical motor and over the cooler chamber temperature-sensing device.
- Remove fan guards as necessary.

- Check the condensate drain pan to ensure that it is open and able to drain the pan. Remove any debris that has accumulated in the pan.
- Using low-pressure water ONLY, rinse interior of refrigeration unit, the coils, the fan guards, and the catch pan of any soil buildup. Wash out drains.
- Using low-pressure water ONLY, rinse both sides of the covering tarp.
- Apply cleaner to all surface areas.
- Rinse all surface areas.
- Apply Sanitizer to all surface areas.
  - Remove plastic coverings.
  - Reinstall fan guards and condensate catch pan on the refrigeration unit.

Note: Brushes and any other cleaning utensils used to clean the pressure cooler or supporting framework must be identified for this use and stored separately from brushes, or any other cleaning utensil used to clean the floors, bathrooms, etc.

# SANITATION STANDARD OPERATING PROCEDURES

## Cooler Room Refrigeration Units

### Safety Precautions:

1. Always wear appropriate protective equipment whenever handling the cleaning and/or sanitizing products.
2. Ensure that the equipment is locked out to a zero mechanical state prior to beginning work or cleaning. Unplug any electrical service cords.
3. Follow the chemical label instructions. Do not mix chemicals without appropriate supervisor authorization.
4. Wear goggles when using compressed air.

### **Chemicals required for cleaning and sanitation of the cooler room refrigeration units.**

Category	Type	Product Name	Formulation
Rinse	Potable Water		
Cleaner	Chlorinated Alkaline Detergent		Per Label Instructions
Sanitizer	Quaternary Ammonia		Per Label Instructions

### Recommended Cleaning Procedure:

#### ANNUALLY

- Disconnect the power to the refrigeration unit.
- Unscrew and remove the catch pan. Unscrew and remove the fan and if possible put them in a clean bowl holding receptacle for later cleaning.
- Place a plastic covering over the refrigeration unit electrical motor and over the cooler chamber temperature-sensing device.
- Remove all materials from the area to be cleaned.
- Pick up all trash from floors and remove to trash can. Remove trash can to dumpster.
- Using low-pressure water ONLY, rinse interior of refrigeration unit, the coils, the fan guards, and the catch pan of any soil buildup. Wash out drains.
- Apply cleaner to all surface areas.
- Rinse all surface areas.
- Apply sanitizer to all surface areas.
- Remove plastic coverings.
- Reinstall fan guards and catch pan on the refrigeration unit.

Note: Brushes and any other cleaning utensils used to clean the cooler room refrigeration units must be identified for this use and stored separately from brushes, or any other cleaning utensil used to clean the floors, bathrooms, etc.

# SANITATION STANDARD OPERATING PROCEDURES

## Pallet Racking Systems

### Safety Precautions:

1. Always wear appropriate protective equipment whenever handling the cleaning and/or sanitizing products.
2. Ensure that the equipment is locked out to a zero mechanical state prior to beginning work or cleaning. Unplug any electrical service cords.
3. Follow the chemical label instructions. Do not mix chemicals without appropriate supervisor authorization.
4. Wear when goggles using compressed air.

### **Chemicals required for cleaning and sanitation of the pallet racking systems.**

Category	Type	Product Name	Formulation
Rinse	Potable Water		
Cleaner	Chlorinated Alkaline Detergent		Per Label Instructions
Sanitizer	Quaternary Ammonia		Per Label Instructions

### Recommended Cleaning Procedure:

#### ANNUALLY

- Place plastic coverings over electrical motors, electrical boxes, electric controls, etc. Move non-permanent fixtures away from racks, walls and off the floor.
- Move all products away from the racks to be cleaned. Cover with plastic covers the product closest to the racks to be cleaned.
- Start at the top of the rack and work to the bottom
- Remove any accumulated produce by dry cleaning.
- Using low-pressure water ONLY, rinse entire rack surface to remove any soil buildup.
- Apply cleaner to entire wall surface area. Scrub areas with a brush or broom as needed.
- Rinse racks.
- Apply sanitizer to racks.
- Remove all plastic coverings.

Note: Brushes and any other cleaning utensils used to clean the pallet racking system or supporting framework must be identified for this use and stored separately from brushes, or any other cleaning utensil used to clean the floors, bathrooms, etc.

## SANITATION STANDARD OPERATING PROCEDURES

### Facility Floors

#### Safety Precautions:

1. Always wear appropriate protective clothing whenever handling the cleaning and/or sanitizing products.
2. Ensure that the equipment is locked out to a zero mechanical state prior to beginning work or cleaning. Unplug any electrical service cords.
3. Follow the chemical label instructions. Do not mix chemicals without appropriate supervisor authorization.
4. Wear goggles when using compressed air.

#### **Chemicals required for cleaning and sanitation of the facility floors.**

Category	Type	Product Name	Formulation
Rinse	Potable Water		
Cleaner	Foaming Degreaser Detergent		Per Label Instructions
Sanitizer	Quaternary Ammonia		Per Label Instructions

#### Recommended Cleaning Procedure:

##### DAILY

- Pick up all trash from floors and remove to trash can. Remove trash can to dumpster.
- Remove any accumulated produce by dry cleaning and remove to dumpster.
- Using low-pressure water ONLY, rinse entire floor surface to remove any soil buildup. Wash out drains.
- Squeegee floors to remove excess water.

##### WEEKLY

- After finishing the above procedures, apply cleaner to entire floor surface area. Scrub areas with a brush or broom. Scrub drain grates as well.
- Rinse floor and drains.
- Apply sanitizer to floors and drains.

Note: Brushes and any other cleaning utensils used to clean the facility floors or supporting framework must be identified for this use and stored separately from brushes, or any other cleaning utensil used to clean the bathroom floors, bathrooms, etc.

# SANITATION STANDARD OPERATING PROCEDURES

## Facility Walls

### Safety Precautions:

1. Always wear appropriate protective clothing whenever handling the cleaning and/or sanitizing products.
2. Ensure that the equipment is locked out to a zero mechanical state prior to beginning work or cleaning. Unplug any electrical service cords.
3. Follow the chemical label instructions. Do not mix chemicals without appropriate supervisor authorization.
4. Wear appropriate goggles when using compressed air.

### **Chemicals required for cleaning and sanitation of the facility walls.**

Category	Type	Product Name	Formulation
Rinse	Potable Water		
Cleaner	Foaming Degreaser Detergent		Per Label Instructions
Sanitizer	Quaternary Ammonia		Per Label Instructions

### Recommended Cleaning Procedure if walls are made of cleanable material:

#### QUARTERLY

- Place plastic coverings over electrical motors, electrical boxes, electric controls, etc. Move non-permanent fixtures away from walls and off the floor.
- Start at the top of wall and work to bottom
- Remove any accumulated produce by dry cleaning.
- Using low-pressure water ONLY, rinse entire wall surface to remove any soil buildup.
- Apply cleaner to entire wall surface area. Scrub areas with a brush or broom as needed.
- Rinse walls.
- Remove all plastic coverings.

#### ANNUALLY

- Place plastic coverings over electrical motors, electrical boxes, electric controls, etc. Move non-permanent fixtures away from walls and off the floor.
- Start at the top of wall and work to bottom
- Remove any accumulated produce by dry cleaning.
- Using low-pressure water ONLY, rinse entire wall surface to remove any soil buildup.
- Apply cleaner to entire wall surface area. Scrub areas with a brush or broom as needed.
- Rinse walls.
- Sanitize the walls.
- Remove all plastic coverings.

Note: Brushes and any other cleaning utensils used to clean the facility walls or supporting framework must be identified for this use and stored separately from brushes, or any other cleaning utensil used to clean the floors, bathrooms, etc.

## SANITATION STANDARD OPERATING PROCEDURES

### Facility Floor Drains

#### Safety Precautions:

1. Always wear appropriate protective equipment whenever handling the cleaning and/or sanitizing products.
2. Ensure that the equipment is locked out to a zero mechanical state prior to beginning work or cleaning. Unplug any electrical service cords.
3. Follow the chemical label instructions. Do not mix chemicals without appropriate supervisor authorization.
4. Wear goggles when using compressed air.

#### **Chemicals required for cleaning and sanitation of the facility floor drains.**

Category	Type	Product Name	Formulation
Rinse	Potable Water		
Cleaner	Chlorinated Alkaline Detergent		Per Label Instructions
Cleaner	Foaming Degreaser Detergent		Per Label Instructions
Sanitizer	Quaternary Ammonia		Per Label Instructions

#### Recommended Cleaning Procedure:

##### DAILY

- Remove any accumulated produce by dry cleaning and remove to dumpster.
- Remove the drain grates and covers.
- Using low-pressure water ONLY, rinse entire drain surface to remove any soil buildup.
- Replace drain grates and covers.

##### WEEKLY

- Remove any accumulated produce by dry cleaning and remove to dumpster.
- Remove the drain grates and covers.
- Using low-pressure water ONLY, rinse entire drain surface to remove any soil buildup.
- Apply cleaner to entire drain surface area. Scrub areas with a brush. Scrub drain grates too.
- Rinse drains.
- Apply sanitizer to drains.
- Replace drain grates and covers.

Note: Brushes and any other cleaning utensils used to clean the facility floor drains must be identified for this use and stored separately from brushes, or any other cleaning utensil used to clean the equipment, utensils, etc.

## SANITATION STANDARD OPERATING PROCEDURES

### Ceilings and Overhead Lamps and Pipes

#### Safety Precautions:

1. Always wear appropriate protective equipment whenever handling the cleaning and/or sanitizing products.
2. Ensure that the equipment is locked out to a zero mechanical state prior to beginning work or cleaning. Unplug any electrical service cords.
3. Follow the chemical label instructions. Do not mix chemicals without appropriate supervisor authorization.
4. Wear goggles when using compressed air.

#### **Chemicals required for cleaning and sanitation of the ceiling and overhead lamps and pipes.**

Category	Type	Product Name	Formulation
Rinse	Potable Water		
Cleaner	Chlorinated Alkaline Detergent		Per Label Instructions
Cleaner	Foaming Degreaser Detergent		Per Label Instructions
Sanitizer	Quaternary Ammonia		Per Label Instructions

#### Recommended Cleaning Procedure:

#### ANNUALLY

- Place plastic coverings over electrical motors, electrical boxes, electric controls, etc. Move non-permanent fixtures out from under overhead equipment.
- Start at one point and work out or away from that point.
- Using low-pressure water ONLY, rinse entire surface to remove any soil buildup.
- Apply cleaner to entire surface area. Scrub areas with a brush as needed.
- Rinse surface.
- Apply sanitizer to surface.
- Remove all plastic coverings.

Note: Brushes and any other cleaning utensils used to clean the ceilings, overhead lamps, and pipes must be identified for this use and stored separately from brushes, or any other cleaning utensil used to clean the floors, bathrooms, etc.

## SANITATION STANDARD OPERATING PROCEDURES

### Cold Holding and Storage Areas

#### Safety Precautions:

1. Always wear appropriate protective equipment whenever handling the cleaning and/or sanitizing products.
2. Ensure that the equipment is locked out to a zero mechanical state prior to beginning work or cleaning. Unplug any electrical service cords.
3. Follow the chemical label instructions. Do not mix chemicals without appropriate supervisor authorization.
4. Wear goggles when using compressed air.

#### **Chemicals required for cleaning and sanitation of the cold holding and storage areas.**

Category	Type	Product Name	Formulation
Rinse	Potable Water		
Cleaner	Chlorinated Alkaline Detergent		Per Label Instructions
Sanitizer	Quaternary Ammonia		Per Label Instructions

#### Recommended Cleaning Procedure:

##### DAILY

- Remove all product, equipment, and supplies from the area of the Cold Room to be cleaned.
- Protect all products in adjacent areas to the area being cleaned. Use plastic covers as protection.
- Pick up all trash from floors and remove to trash can. Remove trash can to dumpster.
- Remove any accumulated produce by dry cleaning and remove to dumpster.
- Using low-pressure water ONLY, rinse entire floor surface to remove any soil buildup. Wash out drains.
- Squeegee floors to remove excess water
- Remove all plastic coverings.

##### ANNUALLY

- Remove all product, equipment, and supplies from the area of the Cold Room to be cleaned.
- Protect all products in adjacent areas to the area being cleaned. Use plastic covers as protection.
- Pick up all trash from floors and remove to trash can. Remove trash can to dumpster.
- Remove any accumulated produce by dry cleaning and remove to dumpster.
- Start at top of walls and clean and rinse to bottom of wall. Clean floors from wall base to center or to nearby floor drain.
- Using low-pressure water ONLY, rinse entire wall and floor surface to remove any soil buildup. Wash out drains.
- Apply cleaner to entire wall and floor surface area, rinse walls, floor, and drains, and apply Sanitizer to walls, floors, and drains.

- Squeegee floors to remove excess water
- Remove all plastic coverings.

Note: Brushes and any other cleaning utensils used to clean the cold holding and storage areas must be identified for this use and stored separately from brushes, or any other cleaning utensil used to clean the floors, bathrooms, etc.

# SANITATION STANDARD OPERATING PROCEDURES

## Dock Areas

### Safety Precautions:

1. Always wear appropriate protective clothing whenever handling the cleaning and/or sanitizing products.
2. Ensure that the equipment is locked out to a zero mechanical state prior to beginning work or cleaning. Unplug any electrical service cords.
3. Follow the chemical label instructions. Do not mix chemicals without appropriate supervisor authorization.
4. Wear goggles when using compressed air.

### **Chemicals required for cleaning and sanitation of the cold holding and storage areas.**

Category	Type	Formulation
Rinse	Potable Water	
Cleaner	Chlorinated Alkaline Detergent	Per Label Instructions
Sanitizer	Quaternary Ammonia	Per Label Instructions

### Recommended Cleaning Procedure:

#### DAILY

- Remove all product, equipment, and supplies from the Dock Area prior to cleaning.
- Protect all products in adjacent areas to the area being cleaned. Use plastic covers as protection.
- Pick up all trash from ground and remove to trash can.
- Using low-pressure water ONLY, rinse entire dock area surface to remove any soil buildup.
- Remove all plastic coverings.

#### MONTHLY

- Remove all product, equipment, and supplies from the Dock Area prior to cleaning.
- Protect all products in adjacent areas to the area being cleaned. Use plastic covers as protection.
- Pick up all trash from ground and remove to trash can.
- Remove any accumulated produce by dry cleaning.
- Using low-pressure water ONLY, rinse entire dock area surface to remove any soil buildup. Wash out drains.
- Apply cleaner to dock area surfaces, rinse.
- Remove all plastic coverings.

Note: Brushes and any other cleaning utensils used to clean the cold holding and storage areas must be identified for this use and stored separately from brushes, or any other cleaning utensil used to clean the floors, bathrooms, etc.

## SANITATION STANDARD OPERATING PROCEDURES

### Facility Bathrooms

#### Safety Precautions:

1. Always wear appropriate protective equipment whenever handling the cleaning and/or sanitizing products.
2. Ensure that the equipment is locked out to a zero mechanical state prior to beginning work or cleaning. Unplug any electrical service cords.
3. Follow the chemical label instructions. Do not mix chemicals without appropriate supervisor authorization.
4. Wear goggles when using compressed air.

#### **Chemicals required for cleaning and sanitation of the facility bathrooms.**

Category	Type	Product Name	Formulation
Rinse	Potable Water		
Cleaner	Chlorinated Alkaline Detergent		Per Label Instructions

#### Recommended Cleaning Procedure:

##### DAILY

- Remove all supplies from the area to be cleaned.
- Pick up all trash from floors and remove to trash can. Remove trash can to Dumpster.
- Rinse toilets, urinals, sinks, and floors to remove any soil buildup. Wash out drains.
- Apply cleaner to sinks, toilets and floors.
- Rinse sinks, toilets and floors.
- Squeegee or mop floors to remove excess water

##### WEEKLY

- Remove all supplies from the area to be cleaned.
- Pick up all trash from floors and remove to trash can. Remove trash can to Dumpster.
- Rinse ceiling, walls and light fixtures to remove any soil build.
- Apply cleaner to all surface areas.
- Rinse all surface areas.
- Wash out drains.

Note: Brushes and any other cleaning utensils used to clean the bathrooms must be identified for this use and stored separately from brushes, or any other cleaning utensil used to clean the equipment, utensils, etc.

## SANITATION STANDARD OPERATING PROCEDURES

### Employee Eating Areas

#### Safety Precautions:

2. Always wear appropriate protective equipment whenever handling the cleaning and/or sanitizing products.
3. Ensure that the equipment is locked out to a zero mechanical state prior to beginning work or cleaning. Unplug any electrical service cords.
4. Follow the chemical label instructions. Do not mix chemicals without appropriate supervisor authorization.
5. Wear goggles when using compressed air.

#### Chemicals required for cleaning and sanitation of the employee eating areas.

Category	Type	Product Name	Formulation
Rinse	Potable Water		
Cleaner	Chlorinated Alkaline Detergent		Per Label Instructions
Sanitizer	Quaternary Ammonia		Per Label Instructions

#### Recommended Cleaning Procedure:

##### DAILY

- Remove all supplies and stored items from the area to be cleaned.
- Dry clean area. Pick up all trash from floors and remove to trash can. Remove trash can to Dumpster. Sweep floor.
- Rinse chairs, tables, food preparation surfaces, exterior surface of the food appliances, and the floor to remove any soil buildup.
- Apply cleaner to all surface areas.
- Rinse all surface areas.
- Squeegee or mop floor.

##### WEEKLY

- Move all permanent fixtures away from walls and off of floor and proceed with rinse, soap, rinse, and sanitation of areas.
- Remove all materials from the cooler chamber.
- Unscrew and remove the fan guard and the catch pan assemblies. Place them in a clean holding receptacle.
- Cover the cooler chamber temperature sensing device and the motor with plastic coverings.
- Rinse, soap, rinse, and sanitize the interior of the cooler chamber, the coils, the fan guards, and the catch pan.
- Remove all plastic coverings.
- Reinstall the fan guards and the catch pan on the cooler chamber.

Note: Brushes and any other cleaning utensils used to clean the employee eating areas must be identified for this use and stored separately from brushes, or any other cleaning utensil used to clean the floors, bathrooms, etc.

## SANITATION MANAGEMENT PROCEDURE

### Material Data Safety Sheets

Attach sheets for each of the following:

#### Chemicals required for cleaning and sanitation.

Category	Type	Product Name	Formulation
Rinse	Potable Water		
Cleaner	Chlorinated Alkaline Detergent		Per Label Instructions
Cleaner	Foaming Degreaser Detergent		Per Label Instructions
Sanitizer	Quaternary Ammonia		Per Label Instructions

**Table 12. Master Sanitation Schedule – Cooling Facility and Equipment.**

<b>FRESH KIST PRODUCE, LLC.</b>							
<b>MASTER SANITATION SCHEDULE</b>							
Initial the correct box after cleaning and sanitation is conducted. Sanitation Supervisor must verify all cleaning and sign-off on the sanitation schedule weekly.							
The week of _____.							
Master Sanitation Schedule	Mon	Tue	Wed	Thur	Fri	Sat	Sun
<b><u>Equipment #1</u></b>							
Hydro Vacuum Tube #1							
Hydro Vacuum Tube #2							
Hydro Cooler #1							
Pressure Cooler #1							
<b><u>Equipment #2</u></b>							
<b><u>Equipment #3</u></b>							
<b><u>Facility Sanitation</u></b>							
Facility Floors							
Facility Walls							
Ceilings							
Pallet Racking Systems							
Refrigeration Cooler Units							
Overhead Lamps, Pipes, etc.							
Plastic strip curtains, etc.							
Floor Drains							

**Table 12. Master Sanitation schedule – Cooling Facility and Equipment. (cont.)**

<b>FRESH KIST PRODUCE, LLC.</b>							
<b>MASTER SANITATION SCHEDULE (cont.)</b>							
Initial the correct box after cleaning and sanitation is conducted. Sanitation Supervisor must verify all cleaning and sign-off on the sanitation schedule weekly							
The week of _____.							
Master Sanitation Schedule	Mon	Tue	Wed	Thur	Fri	Sat	Sun
<b>BIWEEKLY</b>							
Facility Walls							
<b>MONTHLY</b>							
Plastic strip curtains, etc							
Ceilings and Overhead Lamps, and Pipes							
Cold Holding and Storage Areas							
Employee Eating Areas							
Pallet Racking Systems							
Refrigeration Evaporators							

# SECTION D TABLE OF CONTENTS

	Page
<b>Standard Operating Procedures.....</b>	<b>1</b>
<b>Administration</b>	
SOP # 01-01 Creating a Standard Operating Procedure.....	1
SOP # 01-02 SOP Format.....	2
SOP # 01-03 Revision of a SOP.....	3
<b>Water Usage</b>	
SOP # 05-01 Microbiological Contamination of Water.....	4
SOP # 05-02 Chemical Contamination of Water.....	6
<b>Harvesting</b>	
SOP # 08-04 Field to Cooler Shipping.....	8
<b>Cold Storage</b>	
SOP # 09-01 Cold Room Warehousing.....	9
SOP # 09-02 Staging and Pre-Cooling Product.....	10
SOP # 09-03 Receiving Incoming Product.....	12

## SOP # 01-01

### ADMINISTRATION

#### Creating a Sanitation Standard Operating Procedure

First approval by: \_\_\_\_\_ Revision No.: \_\_\_\_\_

Second approval by: \_\_\_\_\_ Effective Date: \_\_\_\_\_

**Issue:**

To provide general guidelines to ensure consistency in the design and development of Standard Operating Procedures (SOP).

- a) Select the category (e.g., Site Selection, Adjacent Land Use, Water Usage, etc.) in which the SOP will be created.
- b) Utilizing the format outlined in SOP # 01-02 “SOP Format”, create the initial draft of the SOP, do not assign a SOP number.
- c) Submit this draft to (*reviewing departments to be named*) for initial review and comment.
- d) Consolidate and incorporate all comments. Provide reasoning for the non-inclusion or revision of any comment.
- e) Request a SOP number from (*department responsible for assigning SOP numbers*).
- f) Submit second draft for review and comment.
- g) Incorporate final comments and submit to (*authorizing department*) for approval signatures.
- h) Issue approved SOP to all affected departments.

Note: The departments or individuals that will review and authorize SOP should be formalized and substituted for the *bolded and italicized* sections in steps c, e and g above.

## SOP # 01-02

# ADMINISTRATION

## SOP Format

**First approval by:** \_\_\_\_\_ **Revision No.:** \_\_\_\_\_

**Second approval by:** \_\_\_\_\_ **Effective Date:** \_\_\_\_\_

**Issue:**

Ensuring consistency in the layout and appearance of all SOP.

The following format shall be utilized for all Sanitation Standard Operating Procedures. No deviations or revisions to this format shall be made without approval using SOP # 01-03 "Revision of an SOP".

**SOP # XX-XX**

**(SOP CATEGORY)**

**SOP Title**

**First approval by:** \_\_\_\_\_ **Revision No.:** \_\_\_\_\_

**Second approval by:** \_\_\_\_\_ **Effective Date:** \_\_\_\_\_

**Issue:**

A description of the purpose or issue that this SOP will address, it should be directly related to the SOP title.

**Concern:**

Describe the specific concern to be addressed by this SOP (this will not normally apply to administrative SOP).

**Contaminate introduction:**

Based upon the specific issues and concerns, list all of the ways that the subject contaminates could be introduced. For example;

- a) Land previously used as a municipal waste site.
- b) Land previously used for disposal of bio-solids, incinerator waste, etc.

**Preventative or corrective measures:**

List all measures required to prevent growing of produce on contaminated ground. For example;

- a) Avoid purchase or lease of ground previously used for questionable practices.

## SOP # 01-03

### ADMINISTRATION

#### Revision of a SOP

First approval by: \_\_\_\_\_ Revision No.: \_\_\_\_\_

Second approval by: \_\_\_\_\_ Effective Date: \_\_\_\_\_

**Issue:**

To provide a formalized revision process for Standard Operating Procedures (SOP).

Initiation of the revision process. Fresh Kist Produce, LLC.' growers are encouraged to comment on the content of the SOP. The SOP is considered a "living" document. The document will evolve over time to address changing consumer concern. In addition it is assumed that the document's appropriateness and pertinence will be improved as the grower suggestions are incorporated.

1. Fresh Kist Produce, LLC.' growers can submit their suggestions for altering the SOP by:
  - a) e-mail to Fresh Kist Produce, LLC.@primuslabs.com
  - b) FAX attention Julian: (805) 922-2462
  - c) Mail attention Julian  
PrimusLabs.com  
2810 Industrial Parkway  
Santa Maria, CA 93455
  - d) Internet through Primus' web site at <http://www.primuslabs.com>
  
1. Adopted suggestions will be incorporated into the SOP and/or Food Safety Policy under the following format:
  - a) Legibly and in **RED** ink, mark up the SOP to be revised with the required changes.
  - b) Submit the revision draft to (*reviewing departments to be named*) for initial review and comment.
  - c) Consolidate and incorporate all comments. Provide reasoning for the non-inclusion or revision of any comment.
  - d) Submit the second revision draft for review and comment.
  - e) Incorporate final comments and submit to (*authorizing department*) for approval signatures.
  - f) Issue approved SOP to all affected departments.

Note: The departments or individuals that will review and authorize SOPs should be formalized and substituted for the *bolded and italicized* sections in steps b and e above.

# SOP 05-01

## WATER USAGE

### Microbiological Contamination of Water

First approval by: \_\_\_\_\_ Revision No.: \_\_\_\_\_

Second approval by: \_\_\_\_\_ Effective Date: \_\_\_\_\_

**Issue:**

Use of water as a carrier for pesticides, fertilizers or other plant protection or growing aids.  
Water used for irrigation, for rinsing crops, frost protection, etc.

**Concern:**

Water can be a vector for microbes including human pathogens (e.g. *E. coli*, cholera, *Salmonella*, etc.).

**Contaminate introduction:**

Though the level of the water's contamination is assumed to be important, the level of risk that tainted waters pose in production agriculture is poorly understood.

**Preventative measures (microbial monitoring):**

Fresh Kist Produce, LLC. utilizes a water monitoring system as part of its preventative strategy.

a) WELLS (CLOSED)

- Frequency. Sample collected is to be accomplished prior to each harvest season and continued annually.
- Location. If a filtering system is present, samples are to be taken after the water passes through the filtering system. If a filtering system is not present, then the sample should be taken at the well head. If a filtering system is not present and a sample cannot be taken at the well head, then a sample can be taken at some point beyond the well head.
- Results. The samples will initially be analyzed for *E.coli*, as indicator of fecal contamination, if contaminated the grower will take immediate action to correct the problem. Additional analyses will be conducted on a daily basis until the contamination issue has been addressed and negative analytical results have been produced.
- Retest. Water source will be sampled and re-tested after corrective measures have been implemented to confirm their effectiveness.

b) OPEN WATER SOURCES

- Frequency. Sample collection is to be accomplished prior to the beginning of each harvest season and continued at least on a quarterly basis (if we use surface water at all).
- Location. If a filtering system is not present, the sample should be taken at the water source. If a filtering system is not present and a sample cannot be taken at the water source, a sample can be taken at some point beyond the booster pump.
- Results. The samples are to be analyzed for *E.coli*, if there is a positive detection of this microorganism, the grower will implement corrective action. Additional analyses will be conducted on a daily basis until the contamination issue has been addressed and negative analytical results have been produced.
- Retest. Water source will be sampled and re-tested after corrective measures have been implemented to confirm their effectiveness.

### **Corrective measures:**

The number of possible causes of water contamination can be numerous. Addressing a specific cause will at times require creativity and flexibility. Fresh Kist Produce, LLC. offers the following suggestions as possible mitigation measures, knowing that in most cases our growers will be the best source for providing specific solutions. Please keep in mind the following: corrective measures must be effective, provide ongoing prevention and confirmed as efficacious.

- a) For a well tainted by a microorganism, where the cause of contamination results from a single isolated atypical or non-repetitive event (i.e. flooding,) a possible corrective measure would be “shocking” the well with chlorine<sup>3</sup>.
- b) If a breach in the well’s casing has resulted in the well being more susceptible to contamination then the casing should be repaired or an alternative water source should be found.
- c) If the water source can not be treated and is suspected or confirmed to be contaminated an alternative (i.e. different well, etc.) should be used.
- d) For water sources that are contaminated and where alternative water supplies are not available an automatic chlorination system is a possible mitigation measure.

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<sup>3</sup> In the United States chlorine is a commonly the material of choice for treating waters to kill or eliminate many microbes. Some microbes in certain stages of development are not impacted by chlorine (i.e. Cryptosporidium, etc.). Strictly adhere to the restrictions and guidelines specified on the label.

## SOP 05-02

### WATER USAGE

#### Chemical Contamination of Water

First approval by: \_\_\_\_\_ Revision No.: \_\_\_\_\_

Second approval by: \_\_\_\_\_ Effective Date: \_\_\_\_\_

**Issue:**

Use of water as a carrier for pesticides, fertilizers or other plant protection or growing aids. Water used for irrigation, for rinsing crops, frost protection, etc.

**Concern:**

Water can be a carrier for chemicals including pesticides, fertilizers, etc.

**Contaminate introduction:**

Though the level of the water's contamination is assumed to be important, the importance of the risk that tainted waters pose is poorly understood, as tainted waters represent a potential source of contamination of crops.

**Preventative or corrective measures:**

The number of possible causes of water contamination can be numerous. Addressing a specific cause will at times require creativity and flexibility. Fresh Kist Produce, LLC. offers the following suggestions as possible mitigation measures, knowing that in most cases our growers will be the best source for providing specific solutions. Please keep in mind the following:

**corrective measures must be effective and provide on going prevention.**

- a) For a well tainted by a chemical where the cause of contamination results from a single isolated atypical or non-repetitive event (i.e. back siphoned pesticide application applied through an irrigation system) after removal of contaminated soil, pumping the well dry repetitively and testing for residual chemical is advised<sup>4</sup>. The use of filtration (i.e. activated carbon) system that is designed to remove the chemical would provide added insurance.
- b) Irrigation systems should utilize check valves. Position the check values to prevent well or other water source contamination from agricultural chemicals introduced through the irrigation system. Check valves should be tested periodically to assure they are in working order.
- c) The addition, mixing and disposal of all agricultural chemicals should be done as prescribed by local, state and federal laws, regulations and guidelines. Care should be taken to avoid well contamination by any agricultural chemical (i.e. agricultural chemical additions, mixing, flushing spray tanks, cleaning equipment, etc.). All agricultural chemical additions, dilutions, etc. should be prohibited within 30 feet of the well head.

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<sup>4</sup> Growers are encouraged to obtain the assistance of an environmental engineer or equivalent professional specific advise.

- d) Soils exposed to excessively high concentrations of pesticides (i.e. accidental spill of a concentrated product) should be removed and disposed of properly.
- e) A sample of water should be taken and analyzed from all wells suspected of being contaminated. Waters that may pose a risk of contaminating crops should not be used until the effectiveness of the mitigation measures have been verified through analyses.

## SOP # 08-04

### HARVESTING

#### Field to Cooler Shipping

First approval by: \_\_\_\_\_ Revision No.: \_\_\_\_\_

Second approval by: \_\_\_\_\_ Effective Date: \_\_\_\_\_

**Issue:**

Contamination from transport vehicles utilized for alternative operations.

**Concern:**

Chemical, microbial or physical contamination resulting from exposure to materials concurrently being transported with crops or from residues from previously transported materials.

**Contaminate introduction:**

- a) Chemical contamination resulting from chemicals (i.e. pesticides, detergents, sanitizers, mineral fertilizers, etc.) either transported with the crops or prior to the shipping the produce.
- b) Microbial contamination resulting from the transport of animals, manure, portable toilets, portable toilet components, etc. either transported with the crops or prior to the shipping the crop.
- c) Microbial contamination resulting from the exposure of the vehicle to contaminated waters (during washing, etc.).
- d) Microbial or chemical contamination resulting from contaminated (fouled bathrooms, prior work in animal husbandry operations, etc.) worker (loader, etc.) clothing (shoe, etc.).
- e) Physical contamination resulting from the transport of wood mulch, nails, metal and metal filings, etc. either transported with the produce or prior to the shipping the crop.

**Preventative or corrective measures:**

- a) Visual inspection of trailer must be made to confirm trailer is clean, odor free and in good repair.
- b) Do not use trailers for transport of items other than fresh produce.
- c) Do not use contaminated or suspect water sources to wash vehicle.

**SOP # 09-01**

**COLD STORAGE**

**Cold Room Warehousing**

**First approval by:** \_\_\_\_\_ **Revision No.:** \_\_\_\_\_

**Second approval by:** \_\_\_\_\_ **Effective Date:** \_\_\_\_\_

**Issue:**

Guidelines for cold room warehousing to minimize potential points of contamination.

**Concern:**

Chemical, physical and microbial contamination is possible during cold storage if potential points of contamination are not monitored.

**Contaminate introduction:**

- a) Improper temperature during storage
- b) Cross contamination from material handling equipment
- c) Carton, product and pallet contamination
- d) Condensate defrost water
- e) Airborne contamination

**Preventative or corrective measures:**

- a) Temperature recorders must be in place to monitor and record temperature of product until it is ready to load into refrigerated trucks for shipment. Product must be held in cold warehousing at 33° F – 38° F.
- b) Cross contamination from material handling equipment must be controlled by inspecting forklifts, pallet jacks, etc. for leaking oil, mud, slime, produce debris, and other contaminants.
- c) Product should not be stored on dirty pallets. Pallets should be clean and free from protruding nails that can damage containers.
- d) Condensate should be monitored and wiped so that it does not drip on product.
- e) Free floating dust and dirt in the cold storage area must be kept to a minimum to prevent contamination of the product. Structural design, alterations and operational procedures may need to be modified as needed.

**References:**

Code of Federal Regulations (CFR), 21 Part 110.40

**SOP # 09-02**

**COLD STORAGE**

**Staging and Pre-Cooling Product**

**First approval by:** \_\_\_\_\_

**Revision No.:** \_\_\_\_\_

**Second approval by:** \_\_\_\_\_

**Effective Date:** \_\_\_\_\_

**Issue:**

Guidelines for staging and pre-cooling product to minimize potential points of contamination.

**Concern:**

Foreign object and microbial contamination is possible if preventative measures are not followed as product is staged and pre-cooled. Various types of pre-cooling methods can be used depending on the type of commodity and operation involved (Vacuum Cooling, Pressure Cooling, Hydro-Vac Cooling, Hydro Cooling, Ice Injection). Each method has similar potential points of contamination.

**Contaminate introduction:**

- a) Animal / pest contamination
- b) Condensate pan dripping on product
- c) Cross contamination from material handling equipment
- d) Airborne contamination
- e) Carton, product and pallet contamination
- f) Contaminated incoming water
- g) Contaminated water reservoir
- h) Contaminated ice

**Preventative or corrective measures:**

- a) A pest control program must be maintained in the staging and cooling area, preferably by a licensed structural pest control operator. Traps and bait stations should be checked on a weekly basis.
- b) Condensate pans should be checked daily to make sure they do not drip on product.
- c) All material handling equipment used in pre-cooling should be inspected on a daily basis for obvious contaminants such as mud, oil, slime, decay or produce debris, etc. Contaminants must be removed as they are identified. Contaminated tarps and bumpers should not be used.
- d) Cooling operators should minimize the amount of free-floating dust and dirt within the facility.
- e) Carton, product and pallets should be handled in a manner, which would not contaminate adjacent product, equipment or cold storage space.
- f) Vacuum chambers of cooling units must be drained, rinsed and refilled on a scheduled basis.
- g) Incoming water must be checked to assure that it complies with the local water districts' microbial standards. This should be done at least once per year.

- h) Water reservoir quality should be checked on a scheduled basis.
- i) The quality of water to the icemaker should be checked at least once per year to assure that it complies with the local water districts' microbial standards.

**SOP # 09-03**

**COLD STORAGE**

**Receiving Incoming Product**

**First approval by:** \_\_\_\_\_ **Revision No.:** \_\_\_\_\_

**Second approval by:** \_\_\_\_\_ **Effective Date:** \_\_\_\_\_

**Issue:**

Guidelines for receiving incoming product for pre-cooling and storage.

**Concern:**

Dirty, damaged, or contaminated containers and product can be a microbial hazard.

**Contaminate introduction:**

- a) Dirt, mud, on containers and product.
- b) Damaged containers
- c) Moldy product
- d) Temperature abused product
- e) Contaminate on containers, bins, pallets, trucks
- f) Foreign object contamination in container with product

**Preventative or corrective measures:**

- a) Pallets, bins, and totes should be clean and free of soils and other debris at the time of receipt. If soil or debris is evident, those containers should be set aside and cleaned of all extraneous matter as is practical. An area should be set aside in the receiving yard so pallets and containers can be cleaned before the cooling process.
- b) Containers shall be cleaned after each use and before any reuse. Minimum cleaning will remove all extraneous matter and debris. A sanitation step should follow.
- c) Used pallets must be clean and free of any extraneous matter, filth, and debris.
- d) Mold or other microbial growths should not be allowed on any pallets.
- e) All employees handling product should wash their hands and wear clean gloves of an impermeable material.
- f) Wilted, temperature abused produce should not be accepted.