Part 6 – Wholesale Distribution Center/Terminal Warehouses

All questions covered in the General Questions Section are applicable to this section. If the General Questions Section is not passed then the operation does not meet the minimum requirements for Part 6 and cannot pass the audit.

Receiving

This section deals with the receiving of fresh produce from one of your clients or their facilities. It is important to remember that all companies supplying fresh produce, including wholesale buyers and growers, are required to have passed a third party audit verification of Good Agricultural Practices and/or Good Handling Practices for the company to receive these points. To document compliance, a copy of the growers current audit certificate should be retained to show the auditor. The certificate can be from any acceptable audit firm.

Conveyances (trucks, trailers, etc.) are required to be clean and in good physical condition. They must be free of objectionable odors, dirt and debris at the time of unloading. The company should not accept produce items that are loaded with or not protected from potentially contaminating products, e.g. meat, fish, equipment, etc. It is for this reason that produce being shipped to your company be transported by vehicles that protect the product from potential contamination. Tarping a load or using enclosed trailers are examples of good practices that will keep the product safe from possible contamination. If the load is received under refrigeration, the temperature should be checked at the time of arrival (*See Carrier Monitoring Log).* If the temperature is not within the companies guidelines at time of receiving, the company must have a written plan for disposition of the product. **For example, if temperatures are more than 5°F higher than the maximum temperature the load will be returned to the seller.**

Storage Facility/Temperature Control

The storage facility should be cleaned on a regular schedule or as required to minimize free-floating dust and other airborne contaminants (See C*leaning recommendations,*

Daily-inspection, Monthly-inspection and *Wholesale and Quarterly-inspection*). All visible debris and unnecessary items should be removed in a timely manner. The employee facilities (locker rooms, lunch and break areas, etc.) should be kept clean and located away from storage and repacking/reconditioning areas. Clearly delineate the area with tape, painted lines or other means.

Refrigeration systems must be maintained regularly and kept in good operating condition. Storage temperature logs in refrigerated rooms will help auditors verify the rooms are maintaining proper temperatures (*See Storage temperature log*). It is suggested that the temperature be checked before starting work for the day. This will give the most accurate reading in the storage. Thermometers should be checked and documented on a regular schedule for accuracy (approximately once a month) (See *Thermometer Accuracy log*). The easiest method is to place an adjustable thermometer in a jar with crusted ice and water. Even if an automated system is in place, thermometers should be manually checked monthly.

A Note on calibration of your thermometer

This information on thermometer calibration is reported from “Food Store Sanitation”, 1988, Sixth Edition, Gravani, Robert B., Rishoi, Don C., Cornell University Food Industry Management Distance Education Program, Lebhar-Friedman Books, Chain Store Publishing Corp.

Melting Point of ice method

1. Place ice in a container and let it melt.
2. Stir to make sure that the temperature in the ice/water mixture is uniform throughout the container.
3. When the ice is partially melted and the container is filled with a 50/50 ice and water solution, insert the thermometer and wait until the needle indicator stabilizes. The thermometer should be 32°F (0°C).

4. If the thermometer is not reading 32°F (0°C), it should be adjusted by holding the head of the thermometer firmly and using a small wrench to turn the calibration (hex) nut under the head until the indicator reads 32°F (0°C).

An important item to remember as you are calibrating your thermometer using the melting point of ice method is to never add tap water to ice because this will ***not*** be 32°F (0°C) but will be at a higher temperature. The calibration will be much more accurate if you use melting ice.

It is important that iced product does not drip from one pallet to the next, because this could result in a potential contamination of the product. If placing loaded pallets on racks, place non-ice product above iced product.

Water used to produce ice or used during hydro cooling should be potable in order to reduce the risk of food contamination. If purchasing ice, obtain a copy of the water test from that location, or if from a well have it tested at least twice a year (See *Water source testing log*).

Ice making facilities must be sanitized on a regular schedule (*Ice Sanitation Facility Log*). This includes the production and storage area and any conveyors, shovels, bins or augurs used to transport the ice. Obtain a copy of the sanitization log from the icemaker. The schedule should be documented in the Food Safety Plan. All ice hauled to a separate location must be transported in a closed truck or the bins covered. No ice should be transported in wood containers since the wood cannot be sanitized and wood pieces can get into the ice then into the produce.

A policy should be established to recondition or dispose of product which has come in contact with the floor or other potentially contaminating surfaces. A statement like the following could be included in the plan. **All products that are spilled will be collected and disposed of in the dumpster**. Another example- **When water is used to disinfect produce the spilled product will be examined for damage. If not**

damaged, it will be run through the disinfection system prior to repacking. This policy should be documented and practiced, if an incident like this were to occur.

Sources of possible contamination including open mesh steel catwalks, motors without shields, overhead dripping, leaking pipes, ceilings dripping from condensation and box conveyors to second floor storages over product flow zones could be subject to contamination from dirty shoes, dripping lubricants and water, cobwebs, or dust hanging from ceilings or light fixtures. Flow zones must be protected from these possible sources of contamination.

All glass materials, i.e. lighting equipment, must either be covered in case of breakage or the lights must be shatter proof. Any overhead lighting regardless of height above the product must be protected.

Grounds surrounding the warehouse should be kept clear of waste and litter to discourage breeding of pests and rodents. Garbage receptacles/dumpsters need to be maintained regularly and located a reasonable distance from the entrance of the building. This includes emptying on a regular schedule and closing the lids when not in use. Areas surrounding the ground around the dumpster should be reasonably free of debris. All garbage containers in the facility must be covered.

Areas around the facilities should be graded to allow water to drain away. If obvious long-standing water is observed the auditor cannot award these points.

Warehouses that cannot be enclosed during non-working hours will not be considered an enclosed facility. When operating it is normal and acceptable to have some doors open.

The facility's interior must be clean and maintained. This includes pipes, ducts, fans, and ceilings within the facility. There should be no evidence that dirt and grime have accumulated over time and have been ignored. Floor drains for wash water must be

clear to prevent water from running onto the floor. All wastewater from toilets and hand washing must drain away from the food storage area or handling area so contamination can be prevented in case of a spill. Other means of preventing contamination is by using barriers or sufficient distance.

Pest Control

Establish proactive procedures to exclude pests and animals. Screens, wind curtains, bird deterrent tape and traps should be utilized to reduce problems with pests. Dogs and cats should not be allowed to enter the facility. A pest control log should be maintained indicating dates of inspections, inspection reports and steps taken to eliminate any problems (See *Bait station control log*). Each trap should be numbered, have a corresponding number on the wall and marked on a map indicating bait station location. Traps outside the facility should be located approximately 50 feet apart and 25 feet apart in the facility. If overhead doors interfere with locations, place at least one trap between every 3-5 doors. All bait traps containing poison must be located outside the facility. Only non-poison methods can be used in enclosed areas. The pest control program should be written down and included along with a copy of the log in the Food Safety Plan.

The auditor will look over the warehouse and storage areas to see if they are well maintained. This includes whether there are major cracks and crevices in the walls, doors, ceiling and floors where pests may hide. All areas where pests may enter should be sealed to the extent possible. Insulation in the ceiling and walls should not be loose. This is an ideal location for birds and other pests to hide.

Note: The presence or evidence of rodents, birds, and other mammal type pests, and pets, excessive amounts of insects or feces in the production or storage area will result in an immediate failure of the audit.

Repacking/Reconditioning

If your facility does repack and/or recondition products, there are several additional guidelines that you must follow. Repacking/Reconditioning processes should always be confined to an established location in the facility. The area can be marked off with tape or painted lines on the floor so everyone knows that is the only area where product is packed. Food contact surfaces must be in good condition and cleaned/sanitized prior to use. A stainless steel surface is the preferred material for repacking. Wood surfaces are not acceptable to use for repacking/reconditioning. There is potential for wood pieces to enter the product. Wood surfaces can be covered with plastic, vinyl, Plexiglas, etc. then sanitized for use. Cleaning logs must be kept and maintained (See *Daily inspection log).*

If water is used in the repacking process, it must be potable and a copy of the water test is required. Municipal water is regulated and must be tested for potability on a regular basis. If using municipal water obtain a copy of their test results at least once a year. Farm wells should be tested at least twice a year to determine if potable (See *Water source testing log*). Test results must be available for review by the auditors. Surface (ponds, lakes, streams, etc.) water is not considered potable for packing and cannot be used.

If using water, the temperature should be monitored on a regular basis. It can be checked automatically or with a standard thermometer at the same time as the disinfectant concentration. This should be done at least hourly. Temperature is critical because if the water temperature is more than 10°F different from the produce, water can be drawn into the produce through the stem end. When water is taken in, it is possible for microorganisms to be taken in at the same time. This is of special concern for melons, tomatoes, peppers, apples and potatoes *(See Produce disinfection log)*.

Reusing wash water may result in the build-up of microbial loads, including undesirable pathogens from the crop. Consider practices that will ensure and maintain water

quality. Several practices will help reduce cross-contamination and maintain water quality. These include:

- Perform periodic water sampling and microbial testing,
- Change water as required to maintain sanitary conditions,
- Developing standard operating procedures for water quality,
- Clean and sanitize water contact surfaces including dump tanks, flumes, wash tanks and hydro coolers on a regular schedule,
- Install backflow devices and air gaps to prevent contamination of clean water,
- Routinely inspect and maintain equipment designed to assist in maintaining water quality.

At the end of each day, repacking areas should be cleaned. In addition, the washing, grading, sorting and packing lines should be cleaned and sanitized to reduce the potential for microbial contamination (See C*leaning recommendations*, D*aily inspection log*). Procedures for carrying out these practices must be documented in the Food Safety Plan. Make sure to include a copy of all logs used to address cleaning and sanitation.

The best way to reduce pathogens is to keep them off the produce in the first place. Once a product is contaminated, it is very easy for this contamination to be transferred to other produce during the packing process. This makes it critical that the water used to wash, move or disinfect produce is monitored closely. There are several antimicrobial chemicals labeled to treat water in the packing operation. The effectiveness of these agents depends on the chemical, physical state, treatment conditions (water temperature, pH and contact time), resistance of the pathogen and nature of the fruit or vegetable surface. Some of the products used are chlorine, ozone, ultraviolet radiation and hydrogen dioxide. There are other products under investigation which will be available in the future. Select the product which will fit best for your packing operation.

If using chlorine to disinfect produce, make sure the concentration of free chlorine is correct [i.e. 100-150 parts per million (ppm) for lettuce, cabbage and leafy greens, apples and melons; 200-350 ppm for tomatoes, potatoes and peppers] at pH 6.0-7.0 and contact time of 1-2 minutes.

No matter which method is used to disinfect produce, the system must be monitored manually. Even automated systems need to be checked on a regular basis. For example, chlorine levels, pH and contact time should be checked manually each hour if the system is not automated (See *Produce disinfection log*). Set up a monitoring schedule even if the system is automated. The procedure used to disinfect the water along with logs should be included in the Food Safety Plan. If an outside firm is employed to handle the disinfection system, their logs should be available for review.

Ice or cold water is often used to reduce the temperature of a product. Water used for this must be potable in order to reduce the risk of food contamination. If ice is purchased, a water report should be obtained from the source to ensure the water is potable. If using farm well water, the well should be tested twice a year for fecal coliform and E. coli (See *Water source testing log*). Ice making facilities must be sanitized on a regular schedule. This includes the production and storage area and any conveyors, augurs or bins used to transport the ice. If ice is purchased, obtain the schedule from the seller. The schedule should be documented in the Food Safety Plan.

Food-grade approved lubricants must be used in areas where produce may be exposed to the lubricating agents. In some cases, operators will use food-grade lubricants on motors that are located over the flow zone or grading equipment and non-food-grade lubricants in other areas. Lubricants such as WD-40, Liquid Wrench, etc. used in other parts of the facility are not acceptable in areas that are exposed to the produce.

Food-grade and non-food-grade lubricants/chemicals, in addition to any chemical not approved to use on product must be stored separately either in separate rooms or segregated within the same room. The intent is that the two are sufficiently separated

and prominently marked in order to prevent cross contamination or mistaken use of non-food-grade for food grade. Include a written policy in the Food Safety Plan related to where food-grade lubricants are used and stored.

During repacking, only new or sanitized containers should be used. Containers that are not being used should be stored and protected from contamination by pests, bird droppings, dirt and water. Wherever containers are stored, inside or outside, they must be covered for protection. The auditor will want to see the storage area. All pallets and containers **used for ready-to-eat fresh produce must be cleaned and sanitized.** When not producing ready-to-eat product, equipment, pallets and containers should be clean, maintained and free of foreign material as practical as possible.

Facilities should have a written policy related to hairnets, beard nets and any restrictions relating to jewelry. Personal hair follicles and jewelry such as watches, earrings and rings can harbor microorganisms. The same policy should be enforced for employees and visitors (See *Please note hairnet, beard net and jewelry policy*). Make sure to post the policies where everyone can see them. If the facility does not require hairnets or does not have jewelry policy state that in the Food Safety Plan.

Shipping/Transportation

Employees should make every effort to ensure that trucks and trailers are clean, free of objectionable odors and generally are in good condition. It is also important that produce items are not loaded with potentially contaminating products. Refrigeration units should be calibrated on a regular schedule and produce items should be shipped only with produce items. Canvas shoots on refrigeration units should be in good shape with no rips or holes and securely fastened to the unit and trailer. A log must be maintained to show that trucks were checked prior to loading (See *Carrier monitoring log*). Produce temperature requirements during shipment should be recorded on the manifest. The trailer should be at the proper temperature prior to loading. The refrigeration units are not designed to lower temperatures, but to maintain temperatures.

If shipping straight loads of produce, consider placing a temperature recorder in the trailer to document air temperatures. The company should make sure they provide a written policy for the transporters to maintain the appropriate temperatures during transport.

Traceability

Records must be kept on the source of all products and the destination of outgoing product that is uniquely identified. See the general questions section to review options for establishing a traceback system. It is the responsibility of the operator to be able to track all ingoing and outgoing product at least one-step forward and one-step back.

RUTGERS
New Jersey Agricultural Experiment Station

Carrier Monitoring Log

***Section I** Fill out both sections*

Date	Time	Carrier	Trailer No.	Driver's Name	Trailer's Last Load	Internal Conditions		
						Clean	Dirty	Washed

***Section II**

Is Trailer Refrigerated		List Temp.	Produce Loaded	Additional Produce on Truck (if applicable)	Temperature Monitor Installed (If applicable)		Employee's Initials
Yes	No				Yes	No	

Sheet Reviewed by: _____ on _____
(Management) (Date)

January 2011

RUTGERS
New Jersey Agricultural Experiment Station

Packing House and Storage Cleaning Recommendations

Areas	Cleaning Method	Frequency	Cleanser
Walls	foam, brush, rinse	monthly	chlorine-base or quat
Ceiling	foam, brush, rinse	monthly	chlorine-base or quat
Floors	wash, rinse	daily	chlorine-base or quat
Doors	foam, scrub	quarterly	chlorine-base or quat
Overhead pipes & Beams	foam, brush	monthly	chlorine-base or quat
Hoist	wipe, clean	quarterly	soap and water
Light fixtures	wipe, clean	quarterly	soap and water
Drains and trenches	clean, rinse with flooding	daily	chlorine-base or quat
Grids	brush	weekly	chlorine-base or quat
Waste, dumpster areas	foam, brush, rinse	daily	heavy duty chlorine-base
Break rooms, restrooms	wash, rinse	daily	chlorine base
Maintenance area	scrub, rinse	monthly	degreasing agent
Coolers	wash, rinse	monthly	quat

January 2011

RUTGERS
New Jersey Agricultural Experiment Station

Packing House and Storage Facility-Daily Inspection Log

Date	Floors		Drains & Trenches		Break Room & Restrooms		Rodent Traps		Hand Washing Facility		Food Contact Surfaces		Waste Dumpster Areas		Employee Name
	Checked	Cleaned	Checked	Cleaned	Checked	Cleaned	Checked	Emptied	Checked	Cleaned	Checked	Cleaned	Checked	Cleaned	

Sheet Reviewed by: _____ on _____
(Management) (Date)

Sample record keeping sheet. Modify to fit your operation.

January 2011

RUTGERS
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Packing House and Storage Facility-Monthly Inspection Log

Date	Walls		Ceiling		Overhead Pipes and Beams		Coolers		Maintenance Area				Employee Name
	Checked	Cleaned	Checked	Cleaned	Checked	Cleaned	Checked	Cleaned	Checked	Cleaned	Checked	Cleaned	

Sheet Reviewed by: _____ on _____
(Management) (Date)

Sample record keeping sheet. Modify to fit your operation.

January 2011

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Packing House and Storage Facility-Quarterly Inspection Log

Date	Light Fixtures		Hoist		Box Storage Area		Doors						Employee Name
	Checked	Cleaned	Checked	Cleaned	Checked	Cleaned	Checked	Cleaned					

Sheet Reviewed by: _____ on _____
(Management) (Date)

Sample record keeping sheet. Modify to fit your operation.

January 2011

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Storage Temperature Log

Date	Time	Location	Temperature (F°)	Comments	Employee's Signature

Sheet Reviewed by:_____ on _____
Management Date

Sample record keeping sheet. Modify to fit your operation.

January 2011

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Thermometer Accuracy Log

Date	Thermometer Location Number	Time	Temp. (F°)	Corrective Measures Needed Yes	No	Briefly Describe Corrective Measures	Date Action Completed	Employee's Initials

Sheet Reviewed by: _____ on _____
(Management) (Date)

January 2011

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Water Source Testing Log

Date	Water Source Location	Sample ID	Date Sample Sent to Lab	Lab ID	Date Results Received	Corrective Measures Needed		Date Corrective Measure Completed	Employee's Initials
						Yes	No		

Sheet Reviewed by: _____ on _____
(Management) (Date)

January 2011

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Ice Sanitation Facility Log

	Floors			Auger			Shovels		
Sanitation Product & mixture	Date Checked	Date Cleaned	Date Sanitized	Date Checked	Date Cleaned	Date Sanitized	Date checked	Date Cleaned	Date Sanitized

Ice Making Machine			Bulk Boxes			
Date checked	Date Cleaned	Date Sanitized	Date checked	Date Cleaned	Date Sanitized	Employee's initials

Sheet Reviewed by: _____ on _____
(Management) (Date)

January 2011

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Bait Station Control Log

Date Checked	Time	Station Number	Status	Corrective Action Needed	Date Corrective Action Completed	Employee's Initials

Sheet Reviewed by: _____ on _____
(Management) (Date)

January 2011

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Produce Disinfection Log

Date	Time	pH Level		Water Temperature		Produce Contact Time		Employee's Initials
		Recorded	Adjusted Y or N	Recorded	Adjusted Y or N	Minutes	Adjusted Y or N	

Sheet Reviewed by: _____ on _____
(Management) (Date)

January 2011

PLEASE NOTE HAIRNET, BEARD NET AND JEWELRY POLICY

EMPLOYEES AND VISITORS

1. Must wear hairnets and if need beard nets when in the packing area.

2. All jewelry must be removed before entering the packing area

3. Wedding rings can be wrapped with tape

4. Eyeglasses are allowed for those who have prescriptions

January 2011